

THIRD EDITION

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Foundations and Practices



Kenneth W. Merrell, Ruth A. Ervin
Gretchen Gimpel Peacock, and Tyler L. Renshaw

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School Psychology for the 21st Century

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In memory of Ken Merrell, our coauthor, colleague, friend, and mentor

While Ken has now been gone for over a decade, his influence on this book and on us as scholars, trainers, and individuals has not diminished. We remain grateful to Ken for his guidance and wisdom over the years. His passion for school psychology still burns bright in each of us, as well as in countless others whom he mentored and inspired during his career. We hope this book might be a means for continuing Ken's legacy of positively shaping the field of school psychology. Most important, we hope the readers of this book, many of whom may have never known Ken, will carry forward the spirit of his work—making school psychology more accessible and beneficial for the youth, caregivers, families, schools, and communities we serve.

—Ruth A. Ervin, Gretchen Gimpel Peacock, and Tyler L. Renshaw

About the Authors

Kenneth W. Merrell, PhD, until his death in 2011, was Professor of School Psychology and Director of the Oregon Resiliency Project at the University of Oregon. For 25 years, his influential teaching and research focused on social-emotional assessment and intervention for at-risk children and adolescents and social-emotional learning in schools. Dr. Merrell published over 90 peer-reviewed journal articles; several books and nationally normed assessment instruments; and the *Strong Kids* programs, a comprehensive social-emotional learning curriculum. He was the Founding Editor of The Guilford Practical Intervention in the Schools Series. Dr. Merrell was a Fellow of the Division of School Psychology (Division 16) and the Society of Clinical Child and Adolescent Psychology (Division 53) of the American Psychological Association. In 2011 he received the Senior Scientist Award from Division 16, the Division's highest honor for excellence in science, and the Outstanding Contributions to Training Award from the National Association of School Psychologists. Dr. Merrell's contributions to the field of school psychology will continue to live on in his published works, in the many students he mentored over the course of his career, and through the manner in which he touched the lives of his colleagues on both a professional and personal level.

Ruth A. Ervin, PhD, is Associate Professor at the University of British Columbia, Vancouver, Canada. Dr. Ervin's teaching and research interests

include promoting systems-level change to address research-to-practice gaps in school settings; collaborative consultation with school personnel, parents, and other service providers for the prevention and treatment of emotional and/or behavioral disorders via a data-driven, solution-oriented problem-solving approach; and linking assessment to intervention to promote academic performance and socially significant outcomes for school-age children.

Gretchen Gimpel Peacock, PhD, is Professor of Psychology at Utah State University, where she is a member of the School Psychology Program faculty. She regularly supervises psychology practicum students in an early intervention setting. Dr. Gimpel Peacock's publications and professional presentations focus on child behavior problems and family issues related to child behaviors, as well as professional issues in school psychology. She serves on the editorial advisory boards of several school psychology-related journals.

Tyler L. Renshaw, PhD, is Associate Professor of Psychology at Utah State University, where he is Director of the School Psychology Program. He teaches graduate seminars in school mental health and supervises a team of graduate students who provide multitiered mental health services in local public schools. Dr. Renshaw's research focuses on investigating practices that drive mental health work in schools, with particular focus on developing brief rating scales and testing mindfulness-based interventions. He is a former Editor-in-Chief for *Assessment for Effective Intervention*, a current Associate Editor for *School Psychology Review*, and an editorial board member for several other scholarly journals.

Preface

This book is designed to provide an introduction and orientation to the field of school psychology from a problem-solving perspective. We especially intend for it to be of interest and use to graduate students who are beginning to prepare for careers in the field. Almost all of the hundreds of graduate programs in school psychology in the United States and Canada offer an introductory class on the field and its professional issues. Students typically take this class during their first year of graduate study, often during their first semester or term. We believe that this book is ideally suited for use in such introductory graduate classes, where we hope that it helps shape the views and practices of the emerging generation of school psychologists. We believe this book is also of interest to undergraduate students in psychology (as it was to one of us) and education who are considering graduate studies and careers in these fields and who desire to learn more about the possibilities that school psychology may hold for them. We also intend this book to be of use to individuals who are considering a career change into school psychology and need a resource to help them explore the field. Individuals who currently work as school psychology practitioners, trainers, administrators, and researchers will find this book to be a fresh introduction and guide to our dynamic and important field.

The first three chapters present a foundation and context for understanding school psychology. [Chapter 1](#) provides an introduction to the field; [Chapter 2](#) gives an overview of the history of school psychology, as

well as the historical context of its place in psychology and American education; and [Chapter 3](#) provides the basis for viewing school psychology as a problem-solving endeavor—the foundation on which the entire rest of the book is built. [Chapter 4](#) provides an overview of effective school psychology practices in an increasingly diverse cultural context. [Chapters 5–7](#) provide a foundation for the professional practice of school psychology, focusing on training and credentialing, employment trends and issues, and legal and ethical aspects of practice in this field, respectively. [Chapters 8–12](#) outline our vision of best practice in school psychology and focus on the range of roles that we believe school psychologists should pursue, including assessment; prevention and intervention; facilitating consultation, collaboration, and systems-level change with a focus on implementation science; and being involved as a consumer and producer of research and evaluation. [Chapter 13](#) provides some concluding comments regarding moving the field of school psychology forward and mapping our own future as professionals. Together, the 13 chapters in this book provide a comprehensive and, in our view, state-of-the-art introduction to the field of school psychology.

This book was written deliberately to reflect our shared points of view, as well as a shared vision of what school psychology can become. We wrote this book because we are interested in promoting a forward-thinking vision of the exciting and dynamic possibilities within the field. We believe that school psychology has much to offer our modern society. The possibilities for this field to make a strong positive impact in schools and communities—to improve the lives of children, adolescents, and their families—are simply enormous. We recognize that there are still several barriers to achieving the full potential of our vision for school psychology, but we believe that much progress has been made over the past several decades toward this end.

Although each chapter within this book is unique, each was developed through a collective or shared vision for our field. Some of the “big ideas” on which this book and our vision for the field of school psychology are based include the following:

- School psychology practice should be outcome focused and data driven. School psychologists should base their decisions on valid data and use effective data collection techniques to inform, monitor, and modify intervention activities (see [Chapter 3](#)).
- School psychologists have historically worked with a limited segment of student populations, primarily those who have or are suspected of having disabilities and those who are otherwise placed at risk for negative outcomes in life. We believe that there will always be a need for school psychologists to focus some of their efforts on the small percentage of students who have serious learning, behavioral, and social–emotional problems. Yet we also recognize that longitudinal research points to the chronic nature of such problems and the critical need for *early* intervention if negative long-term outcomes are to be curtailed. Thus, we contend that school psychologists should use their unique expertise to positively affect *all students in school settings*, not just those who currently exhibit serious learning, behavioral, or social–emotional problems (see [Chapters 3](#) and [10](#)).
- North American society has become increasingly diverse and pluralistic with respect to the cultural background, race, ethnicity, and language of its citizens—and it will continue to become increasingly diverse during the 21st century. School psychologists should develop culturally responsive skills so that they can work appropriately and effectively with individuals and groups from a variety of backgrounds (see [Chapter 4](#)).
- School psychology practice has been and should continue to be primarily focused in school or other educational settings. The educational setting is a primary focus of our vision and of this book. However, school psychologists have much to offer outside of the context of school settings, and we encourage the practice of school psychology in a variety of settings and contexts (see [Chapter 6](#)).
- Assessment of children and adolescents has been and will continue to be a mainstay activity of school psychologists. However, the types of

assessment methods and the process of assessment have evolved over time. Assessment activities should do more than simply describe or diagnose problems. Rather, the most useful assessment strategies are those that provide a foundation for developing, implementing, and monitoring effective interventions (see [Chapter 8](#)).

- Effective prevention and intervention activities should occupy a significant percentage of school psychologists' time. Such activities should occur within the context of an evidence-based practice model that is guided by a problem-solving approach and response-to-intervention logic (see [Chapters 9](#) and [10](#)).

- Prevention and intervention activities can occur with individuals, small groups, classrooms, and entire schools, as well as within school district- or community-based contexts. School psychologists should engage in prevention and intervention activities within a multi-tiered system of supports, where the nature of service delivery is defined by the scope of students being supported (all vs. some vs. few) and the intensity of resources or time committed per pupil (high vs. moderate vs. low). Viewing service delivery through a multi-tiered lens allows school psychologists to make more efficient and effective use of our practice time; it also allows a larger number of individuals to be positively influenced by our expertise (see [Chapters 9](#) and [10](#)).

- School psychologists do not typically function in isolation but work as part of a system. School psychologists should strive to use their expertise to develop a solid understanding of the systems in which they work and to help facilitate systems-level change as needed (see [Chapter 11](#)).

- School psychologists should be savvy consumers of research and should have the skills to engage in research and evaluation activities within their respective settings that will help to advance practice (see [Chapter 12](#)).

- School psychology is a field with incredible potential for helping to solve the “big” problems facing education. And yet this potential is still not fully realized. We believe that school psychologists should play an active and important role in this regard. This book is built on the foundation of a progressive, forward-thinking vision of school psychology, and we are optimistic that our field will continue to evolve toward realizing its full potential (see [Chapter 13](#)).

We hope that this book receives a broad audience and that it meets the needs of those who use it, perhaps even inspiring *you* to think about and practice school psychology in a new way. In sum, school psychology is a dynamic and exciting field that has incredible and still unrealized potential for positively affecting education, psychology, and the lives of children, adolescents, and their families. It is our hope that this book proves to be a useful and engaging guide to the field of school psychology, and that it helps the field continue to move forward.

Comments on the Third Edition

The third edition of this book maintains the same vision and unifying themes as the first and second editions. What is different in the current edition is a number of updates and improvements that reflect developments in the fields of school psychology and education since 2012, including an increased focus on multi-tiered systems of support, a new emphasis on implementation science, revised discussion of legal issues impacting the field, new research findings, and an updated overview of recent social and demographic trends in the field and in society. Some of the specific changes from the previous edition include:

- Hundreds of new references that reflect updates to the critical literature in the field; new research findings in education and psychology; and the latest legal, ethical, and social developments.
- Enhanced discussion and coverage of multi-tiered systems of support as a service delivery heuristic for supporting the academic, behavioral, and social–emotional needs of all students.
- Expanded coverage of issues related to supporting the increasing number of culturally and linguistically diverse students in schools, including enhanced and updated content in [Chapter 4](#), as well as updated content infused across other chapters.
- Up-to-date coverage of the changes in school psychology training programs, professional standards, and demographic trends in the field that have emerged since the publication of the previous edition of this book.
- Updates on some of the latest trends, programs, tools, and techniques for conducting evidence-based assessment with children and adolescents in schools and related settings.

- Expanded coverage of the evidence-based practice model in addressing mental health concerns, as well as expanded coverage of evidence-based interventions across academic, behavioral, social-emotional, and mental health domains.
- Enhanced focus on improving the quality and integrity of evidence-based practice by focusing on implementation science.

Acknowledgments

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Chapter 1



Introduction to the Field of School Psychology

It is fitting for the first chapter of this introductory book about school psychology to provide a general exploration of this exciting field. If you are investigating this field or are new to it, you probably have some basic questions, and this chapter is an attempt to answer some of them and to provide an orientation to this book. The chapter begins with a discussion of the various definitions of school psychology and how these definitions inform and shape the field. We then briefly lay out our vision of school psychologists as data-driven problem solvers, which is something we return to often and emphasize throughout the book. General characteristics of school psychologists are described, including such aspects as the locations and number of individuals who work in the field, professional organizations to which school psychologists belong, and level of training necessary to become a school psychologist. To help provide a more direct introduction to the field, we present vignettes of individuals who work in school psychology. These vignettes show the diversity, strength, creativity, and challenges within the profession. Some aspects of entry into the field are described, including graduate training and credentialing. School psychology is differentiated from some of the more closely related fields in psychology and education.

Finally, we include a guide to using this book and an overview of some of the “big ideas” on which the book was developed.

Defining School Psychology

At the beginning of a book introducing readers to the field of school psychology, it is reasonable to consider the following questions: “What is school psychology?” and “What is a school psychologist?” Individuals who have worked in this field for several years might assume that the meaning and definition of school psychology are self-evident. However, a closer look at the development of the field, the evolution of a professional identity, and some of the controversies regarding issues that to outsiders appear to be straightforward show us that in order to define school psychology, we must examine it closely and consider the importance of what is in a definition.

Previous Definitions

It is interesting to look through the literature from past decades to see how the defining characteristics of school psychology have evolved over time. In their 1961 book *The School Psychologist*, White and Harris stated, “In our view school psychology is that branch of psychology which concerns itself with the personality of the pupil in interaction with the educational process,” and argued that the field “encompasses not only the learning process, as part of education, but also the personality of the learner as a member of school society, as a member of a family unit, and as a member of the community” (p. 1). A few years later, in her landmark book *The Psychologist in the Schools*, the original treatise on problem solving as the professional aspiration of school psychologists, Susan Gray (1963) posited that school psychologists had two primary roles: one as *data-oriented problem solvers* in schools and the other as *transmitters of psychological knowledge and skills*. Later, Bardon and Bennett (1974), in their book *School Psychology*, wrote:

The specialty in psychology concerned with how schooling affects children in general and with the pupil in interaction with a specific school is called school psychology. The specialty

includes knowledge about research and theory dealing with what happens between children and others when they are together in schools; more than that, school psychology deals with how school for a child in Jackson Junior High is different than school for a child in Wilson Junior High. (p. x)

Current Definitions

In contrast to these notable statements from the 1960s and 1970s, which defined the field by focusing on what school psychologists *do* or should do rather than on what the specialty *is*, the most current definitions of school psychology tend to be more direct in defining the essential characteristics of school psychology. In the “About School Psychology” section of the National Association of School Psychologists (NASP) website (www.nasponline.org/about-school-psychology/who-are-school-psychologists), there is a section titled “Who Are School Psychologists,” in which the following definition is provided:

School psychologists are uniquely qualified members of school teams that support students’ ability to learn and teachers’ ability to teach. They apply expertise in mental health, learning, and behavior, to help children and youth succeed academically, socially, behaviorally, and emotionally. School psychologists partner with families, teachers, school administrators, and other professionals to create safe, healthy, and supportive learning environments that strengthen connections between home, school, and the community.

Another definition or description of school psychology is provided by the American Psychological Association (APA) in their description of specializations (www.apa.org/ed/graduate/specialize/school):

School Psychology, a general practice of Health Service Psychology, is concerned with children, youth, families, and the schooling process. School psychologists are prepared to intervene at the individual and system levels, and develop, implement and evaluate programs to promote positive learning environments for children and youth from diverse backgrounds, and to ensure equal access to effective educational and psychological services that promote healthy development.

Because these definitions are from the two most influential entities representing the field of school psychology in the United States, they have particular importance. What do these definitions have in common? First, they indicate that school psychology is a profession concerned with both the mental health and education of children and youth. Second, they indicate that school psychologists provide services to children, youth, and their families and work within a team/systems context. Formulating definitions of school psychology and subsequent efforts to refine these definitions have been exceedingly difficult at times. These issues are not trivial. Professional identity and activities are shaped in great measure by how a specialty is defined. The short answer to “What’s in a definition?” is “More than you might think!”

School Psychologists as Data-Driven Problem Solvers

Throughout this book our focus is on a vision of school psychologists as data-driven problem solvers. What we are referring to with this phrase—*data-driven problem solvers*—is an approach to *doing* or *practicing* school psychology that is grounded in the logic of the *problem-solving model*. Generally speaking, the problem-solving model is a scientific and practical method for making things better. We usually talk about this method in terms of four sequential phases or stages: (1) clearly identifying the undesirable situation (i.e., the problem), (2) analyzing the conditions that cause or maintain the problem, (3) developing plans to change the conditions that might remedy the problem, and then (4) implementing and evaluating the effectiveness of these plans (Pluymert, 2014). While this model is not specifically stated in the definitions of school psychology provided previously, we believe a problem-solving approach is foundational for our professional identity and critical in moving the field of school psychology forward.

We also emphasize throughout this book that the usefulness of a data-driven problem-solving approach to school psychology is best understood within the context of three other major movements in education: evidence-based practice (EBP), response to intervention (RTI), and multi-tiered systems of support (MTSS). The EBP movement emphasizes the identification, dissemination, promotion, and adoption of practices (e.g., assessment, intervention) that have demonstrated research support (e.g., Burns, Riley-Tillman, & Rathvon, 2017; Weisz & Kazdin, 2017). The basic requirement for identifying an EBP is that its evidence base must be of sufficient quality to support its use in practice (see Davis, 2019, for an overview of how such determinations are made). The EBP movement has been viewed as having the potential to significantly improve the quality of

school psychology services, as it allows us to move beyond just making predictions about children's lives to actually making a difference in their lives (VanDerHeyden & Burns, 2018). RTI, on the other hand, is a movement that has grown out of special education but has the potential for much broader applications (Glover & Vaughn, 2010). RTI refers to the process of providing an EBP that is matched to student needs and then using student response data to make decisions about the effectiveness of that specific EBP when applied in this particular situation (Burns, Jimerson, VanDerHeyden, & Deno, 2016). RTI therefore relies on EBP but is not synonymous with it. The MTSS movement relates to these other movements by integrating EBP and RTI within a multilevel approach for addressing the learning and social-behavioral needs of *all* students (Kilgus & von der Embse, 2019; Stoiber, 2014). MTSS can be understood as a service delivery heuristic that helps practitioners to efficiently organize and tune (up or down) the use of EBP and RTI according to two key factors: (1) the scope of students receiving services and (2) the intensity of services provided to those students. Thus, MTSS incorporates EBP and RTI but is not identical to them.

Taken together, the RTI, EBP, and MTSS movements are all complementary and play important roles in applying the data-driven problem-solving approach we are advocating for school psychology. To draw an analogy, we could say that if EBP, RTI, and MTSS are like *vehicles* for getting efficient and effective services into schools, then the problem-solving model is akin to the *fuel* that powers these vehicles. We therefore think it is safe to say that, as our profession evolves, there may arise more and different movements (vehicles) within education that help school psychologists better realize our potential to benefit others. Yet we expect that, no matter how much things change, the most fundamental driving force (fuel) within our field will remain the same: the problem-solving approach will be the bedrock of school psychology. We return to these foundational concepts—and most especially the problem-solving approach—throughout this book as we discuss the various aspects of school psychology practice.

School Psychologists in the Workforce

Another way to obtain a snapshot of the field of school psychology is to look at who school psychologists are and where they are employed. Details on school psychologists and their work settings are presented in [Chapter 6](#). Here we provide some basic information regarding numbers of school psychologists and their roles. Because the practice of school psychology is governed by various credentialing bodies within the individual states and provinces, and because membership in professional organizations is voluntary, there is no unitary list or registry of school psychologists.

Perhaps the most direct way to make inferences regarding the basic characteristics of school psychologists is to look at available data from national organizations. However, even this method is fraught with challenges because the actual percentage of school psychologists who join professional organizations is unknown, and many school psychologists belong to two or more professional organizations that represent the field (e.g., APA and NASP).

Based on information provided on the NASP website, there are over 25,000 members in the association. On the basis of our own experiences and conversations with practicing school psychologists, we estimate that 60–65% of school psychologists in the United States are members of NASP; the figure for school psychologists in Canada is somewhat less. If we are correct, then a reasonable estimate of the number of school psychologists in the two nations ranges from 39,000 to 43,000. This estimate is consistent with other recent estimates of U.S. school psychologists. For example, Fagan (2014) noted that a “reasonable figure” for school psychologists within the United States is in the 30,000–35,000 range, and Charvat (2008) estimated that there were approximately 35,400 credentialed school psychologists in the United States in 2008, with 28,500 of these individuals being practicing school psychologists. In addition, data from the 41st Annual Report to Congress on

the implementation of the Individuals with Disabilities Educational Improvement Act (IDEIA; U.S. Department of Education, 2019) indicated that in 2016 there were 35,975 full-time-equivalent psychologists providing services in the schools to youth ages 3–21 who are served in special education programs under IDEIA. Of course, this figure does not take into account individuals who are trained as and identify as school psychologists who are not working in a school setting. The number of school psychologists working in the schools has been increasing over time. For example, in the 30th Annual Report to Congress, it was reported that there were 30,561 full-time school psychologists in fall 2005 (U.S. Department of Education, 2011) and, as reported in the 20th Annual Report, there were 23,385 full-time school psychologists in fall 1995 (U.S. Department of Education, 1998).

Using APA Division 16 data is less informative in terms of estimating the number of school psychologists. In October 2018, we were informed by the division's leadership that there were approximately 1,640 members in Division 16. This figure is obviously not a proxy figure in any respect for the total number of school psychologists in the United States because it is widely understood that far fewer school psychologists join APA than NASP, and it is unknown how many individuals are members of both organizations. One reason that APA Division 16 has far fewer members than NASP is that a doctoral degree is required for full APA membership, and a large majority of practicing school psychologists do not have doctoral degrees.

Internationally, the number of school psychologists is also something of a puzzle, and it is even more difficult to ascertain than the number within the United States. While the leadership for the International School Psychology Association estimates that there are 600 members across 40 countries in their organization, the number of school psychologists internationally is much higher than this. Jimerson, Stewart, Skokut, Cardenas, and Malone (2009) estimated that there were 76,122 school psychologists in 48 countries, including 32,300 in the United States and 3,500 in Canada. After the United States, Turkey had the next largest estimated number of school psychologists (11,327), followed by Spain

(3,600), and then both Canada and Japan (3,500 each). Jimerson and colleagues noted that estimates for school psychologists for the three countries with the largest number of children (India, China, and Indonesia) could not be obtained, and in Indonesia there was no evidence of school psychology practice. Unfortunately, more recent data on numbers of school psychologists across the world are not available at this time but our guess is that it is likely the numbers have increased at least somewhat since this 2009 publication.

Although we use the term *school psychologists* very generally to make these worldwide comparisons, it is worth noting that the role of school psychologists outside of the United States and Canada (who are also referred to in some nations as “educational psychologists”) may differ considerably from the role of school psychologists in the United States and Canada. Particularly in the United States, the role of the school psychologist has been strongly linked to the public laws (e.g., IDEIA) for education of students with disabilities. In most other nations, this is not the case. That being said, many of the basic core functions of school psychologists in terms of consultation, intervention, and assessment are likely similar across many countries (Oakland, 2007; Oakland & Jimerson, 2014; more information on the practice of school psychology worldwide is available at the International School Psychology Association website at www.ispaweb.org).

With respect to demographic characteristics of school psychologists, as discussed in [Chapter 6](#), the field is currently dominated by White females who are trained at the specialist level. While the field is very slowly becoming more diverse in terms of race/ethnicity, the percentage of women in the field has increased more substantially over time. In commenting on the shift in gender composition of school psychologists since about the 1970s, Reschly (2000) stated that the increased proportion of women in the field during this time period constituted “the clearest changes in school psychology during the past two decades” (p. 508). Across a period of about 30 years, the representation of women in school psychology grew at a rate of about 10% per decade (Reschly, 2000). In more recent years, the percentage

of school psychologists who are women has been relatively stable (Goforth, Farmer, Kim, Naser, et al., 2021).

Being There: Three Stories from the Field

Although the general professional definitions and descriptions of school psychology are extremely important and have broad impact on how the field is perceived both within and outside of the field, they give us only a small glimpse of what school psychologists do in their day-to-day work.

Definitions cannot capture the diversity of roles that school psychologists fill, nor can they adequately convey how each practicing school psychologist is in a unique situation and setting and has a unique perspective on the field. In addition, general definitions cannot possibly convey the wealth of experience, passion, and personal commitment that individual school psychologists bring to their work. Perhaps a better way to illustrate what school psychology looks like at the point of actual practice is to present a glimpse into the professional lives of several school psychologists in the following vignettes.

Julie—20-Year Professional in the Field

Julie has been working in the field of school psychology for more than 20 years. She graduated with her specialist-level degree in 1999 and went right to work as a school psychologist. Her first position was in a moderate-size district in the southeastern part of the United States. The vast majority of her career to date has been spent in a larger district in the Southeast, although she recently relocated to the western United States and started a position with a new district. Approximately 10 years after graduating with her specialist-level degree, Julie went back to school to become a board-certified behavior analyst (BCBA). She completed her practicum hours toward her BCBA in placements specializing in autism spectrum disorders and then worked for just over a year following certification as a BCBA for a private company serving clients with autism spectrum disorders. She then returned

to the schools and worked first as a school psychologist and then as a behavior consultant (serving one-third of the schools in the district—15 schools!) before moving to the western United States where she has returned to a school psychologist position.

In her current role, Julie is serving as the school psychologist in two schools: a middle school (grades 6–8) with approximately 500 students and a district charter school (grades K–8) with approximately 300 students. She describes the district in which she is working and both of her schools as “high need.” In the charter school, approximately 12% of the students receive special education services. Her experience with the charter school is that it has attracted families that are dissatisfied with their local schools and are seeking another option, leading to a student population with a broad range of skills and needs. She shared that the charter school allows for a great deal of flexibility for the academic and social–emotional needs of students, and she believes that many more students attending the charter school would likely be identified as requiring special education services if they were attending their local schools. Approximately 20% of the students attending the middle school receive special education services. Like many of the middle schools in the district, her middle school has severe needs programs for students with intellectual disabilities and students with emotional disabilities. She estimates that one-third of the students at the middle school are Latinx even though the area in which the district is located is predominantly White. The middle school primarily serves a lower socioeconomic status (SES) population—however, there are pockets of higher-income families. The charter school is less diverse in terms of race/ethnicity but is highly diverse in terms of family income and background, with some students living on farms or other rural areas, some in low-income housing, some in multigenerational homes, and others in single-family homes in affluent areas of the region.

Julie is contracted in her current district for 197 days a year, which is a 10-month contract. School psychologists are expected to work 8 hours a day for a 40-hour week, but she estimates that she spends a minimum of 50

hours per week on work-related tasks, with some of that work occurring at home. In her previous position, school psychologists worked a 12-month contract with teacher holidays and 2 weeks off during the summer, but relatively little work was required outside of the contracted hours. Although her previous district had no year-round schools, the evaluation load was high and evaluations were completed in the summer months, as well as during the school year.

In Julie's state, the role of the school psychologist varies significantly based on location and need. In her current district, school psychologists are looked to as the special education team leader for their schools. Julie's role is varied, although she did note that she spends more time in meetings than in her previous positions (and more time in meetings than she would like). She estimated that she completes one to two evaluations per week (in her previous district, she completed an average of 120 evaluations per year) and that, like her previous district, she completes the cognitive, social-emotional, and achievement portions of the evaluations. She spends approximately 4 hours a week providing counseling services to students whose individualized education programs (IEPs) require psychological services as a related service, conducts a number of functional behavioral assessments and assists in monitoring implementation of behavior support plans, and engages in daily consultation with teachers and others at her schools to best address the needs of the students.

Julie's previous district received a state grant to improve services for students with autism through teacher training and coaching, and she was highly involved in implementing this project during her last 4 years with the district. In both her previous and current districts, she is involved in assessing students for autism spectrum disorders. Julie shared that her current district does not yet have an autism evaluation team or systematic approach for providing supports to teachers who are working with students with autism spectrum disorders. Julie also noted that she spends a good deal of her time on mental health-related issues, which can present significant challenges.

As is the case throughout many western states, the suicide rate is higher in Julie's area than the national average. She estimates that she typically conducts one to two suicide risk assessments each week. She also attends weekly meetings at the middle school with the school-based counseling team (which includes the school counselors, social workers who are available part time at her school, school psychologist, and district support staff) in order to coordinate school and community resources for students and allow for consultation among mental health staff.

When asked about changes she has seen in the field over time, Julie noted a couple of trends. Like so many in the field, she has been surprised by the increase in numbers of students with autism spectrum disorders and the urgent need for specialized supports for these students in the schools. In her previous district of approximately 40,000 students, there were just a handful of classes for students with autism spectrum disorders in the early 2000s. Fifteen or so years later, that number had increased to over 100 classes for students with autism spectrum disorders. She noted that this growth in the number of children identified with autism spectrum disorders is one reason she went back to school to obtain her BCBA credential and that this training has helped her feel much better prepared for meeting the needs of these students.

Other changes Julie has noticed over the years include an increase in mental health needs and severity of behavioral concerns among students, and a greater involvement of school psychologists in meeting these needs. Unfortunately, during this time she has also seen an increased shortage of special education teachers and school psychologists. Julie reported feeling encouraged that school systems around the country seem to be embracing the need for mental health services and are continuing to move toward intervention-based models, like MTSS, in which youth can be provided supports based on need rather than looking to special education eligibility as the sole criterion in determining which students receive support. Julie shared that early in her career she struggled with feeling pressured to identify students as needing special education so that they could receive

services, while at the same time feeling uncomfortable in some situations with the quality and effectiveness of the special education services being provided.

In terms of the biggest challenges facing her schools and district, Julie again noted the need for more mental health services both in her schools and in the surrounding community. In addition to not having enough resources in the schools to meet the needs of youth, the community in which her district is located has a shortage of mental health practitioners—the closest psychiatric inpatient services for youth under the age of 12 are 5 hours away. Services for students with autism spectrum disorders (such as applied behavior analysis therapies) are also in extremely short supply in her community.

When asked about the top three things she likes about her job, Julie shared that she (1) loves the field of school psychology, as it allows for the integration of education and psychology, including mental health and behavior; (2) enjoys working in the school environment; and (3) continues to be inspired by the success of students when true collaboration among professionals takes place. When asked about her top three dislikes, Julie stated that she (1) dislikes situations and systems in which there is a lack of clear policies and procedures and, as a result, lack of consistency; (2) finds the inequities between schools and districts in funding and provision of services difficult to accept; and (3) experiences the ongoing struggle that most school psychologists face in establishing boundaries and finding a work/life balance.

For students currently interested in school psychology as a career, Julie recommended taking the time to find out as much about the field as possible before committing to a program. She also noted that positions and even school placements vary a lot and, if new graduates are in positions that they are not enjoying, it is worth asking for a change of assignment or looking for another position that may be a better fit. She also noted that it is easy for students and early-career professionals to be overwhelmed by the breadth of the field and advised that it is important to realize that no school

psychologist is an expert in everything. She shared that while there are basic skills in which all school psychologists need to develop proficiency, it makes sense to further develop skills in areas of specific interest (e.g., for Julie this was applied behavior analysis and autism spectrum disorders), while also developing relationships with colleagues to allow for collaboration across areas of expertise. As such, she encouraged school psychologists to be intentional with their professional development and to look for opportunities that will truly advance their skills.

Overall, Julie reported being very satisfied with her career and happy that she had made the decision to go into school psychology. She reported truly enjoying working with middle school students—a population that is definitely not for everyone!

Laura—Agent for Change

Laura is currently in her 11th year working as a school psychologist after graduating with her educational specialist (EdS) degree. During her initial years of employment, she worked in a school district in a medium-size city in Texas. For the past 5 years she has been working in a district in a small (but not rural) community in Texas. She is the only school psychologist in her district, which has a student population of about 1,750 and includes four schools (preK–early elementary, later elementary, middle and high school). The student population in the district in which Laura works is predominantly White (approximately 75%) with about 20% of students who are Latinx and about 5% who are Black. She estimates that about 30–40% of the students are from low-SES backgrounds and about 7–8% speak a language other than English.

Laura received her bachelor's degree in psychology and entered graduate school immediately after finishing her undergraduate degree. Like many people, she was not aware of the field of school psychology until later in her college years. In her senior year, Laura took an elective course from a faculty member who was a school psychologist and this person encouraged her to

look into school psychology programs given her interests in working with youth and counseling. Laura has never looked back and is happy she found the field of school psychology.

When asked to describe her typical day, like many school psychologists, Laura said that her days do not ever look the same. She indicated that at the beginning of her career this used to bother her as she likes to plan out her days, but she knows that this is just how the job is—and is now comfortable with (and enjoys) the variability in her position. She estimated that about 50% of her time is spent in testing and report-writing activities. She completes all initial evaluations in her district. Her district employs a diagnostician who conducts many of the reevaluations, but Laura still does the reevaluations for students with an emotional disturbance or autism classification. She reported that there is a lot of testing to do—so much that last year the district contracted out for some of the assessments due to the number of referrals. About 20% of Laura's time is spent in counseling activities—and all of these students receive counseling as a related service as part of their individualized education program. She is not able to provide counseling to students who are solely in regular education due to the demands on her time and the needs of students who are receiving special education services. She has 22 students on her counseling caseload and noted that anxiety-related issues are the most common presenting problem she sees. She primarily uses cognitive-behavioral strategies with these youth. She also works with students on social skills and adaptive coping skills more generally.

In addition to the testing and counseling activities that make up the majority of Laura's time, there are a variety of other tasks that fill in the remainder of her hours. About 10% of her time is spent on crisis/threat assessments, 5% on supervising practicum students, 5% in meetings, and 5% doing paperwork—including that for billing Medicaid, which reimburses the district for many of the evaluations conducted and some of the counseling. Laura indicated that while she does not mind testing for learning disabilities (LD), she would like to do a little less of this and have

more time to engage in consultation with teachers. She also noted that, at least in her area of Texas, school psychologists are not typically involved in MTSS and RTI activities and that she would definitely like to be part of this process. She noted that the schools have these teams—but the school psychologists are not involved. Overall, she expressed a desire to have more time to develop and implement interventions, as well as more time to meet with students, including those who are not receiving special education services.

When asked about changes seen in the field over time, the biggest thing Laura noted was that there were increasingly more students to serve and not enough school psychologists. This directly relates to the biggest challenges she sees facing her schools—which she reported to be the “mental health epidemic” with more and more youth having mental health diagnoses and those diagnoses having a significant impact on their school functioning. She noted that while mental health issues in the schools have always been there, they have become much more prominent in recent years and there are significant challenges in being able to help all of the students who need services given both the shortage of school psychologists and the lack of funding to expand school psychology services broadly and mental health services specifically. In Laura’s district, they are fortunate to have a partnership with a local mental health agency (supported through a grant) in which mental health providers at the agency can work with up to 30 students who the district refers. Without this partnership, many students who need services would go without.

When asked about what she likes most about her job, Laura reported that her favorite thing is being able to build relationships with students and being able to see them grow and make progress. She noted that regardless of how stressful her work week might have been, she is always able to look back and feel good about helping at least one student. She also indicated that she really enjoys the school schedule. Her expected working hours are 8:00 A.M.–4:00 P.M. (although she reported that she usually gets to work around 6:30 A.M. so she can get work done before everyone else shows up—she said

this is by choice and she is a morning person) and that she is contracted to work 197 days. She has 7 weeks off in the summer and takes that time to enjoy being with family, although she sometimes babysits on the side to make a little extra money.

Regarding dislikes, Laura reported that she becomes annoyed or frustrated when people do not understand what she does and thinks she just sits in her office all day. She indicated that she believes if people understood more about everything a school psychology job involves, they would have a better appreciation of school psychologists. She reported that while she absolutely loves what she does and enjoys going to work every day, she feels like the work of school psychologists goes unnoticed and unappreciated and worries about the impact this may have on those in the field. As an example of this, she noted that at the time of her interview even NASP has School Psychology *Awareness* Week rather than *appreciation* week. Her hope is that the field can move past people needing to become aware of what school psychologists do and focus instead on appreciating all the hard work they put into supporting the youth in our schools. (It is worth noting that starting in 2020, NASP changed the name of this annual event to National School Psychology Week, dropping the “awareness” piece.)

When asked about recommendations she has for students considering going to graduate school for school psychology, Laura said she would tell them that if they want a job where they are able to do something that makes a difference on a daily basis and if they want to work with children, this is a great field to go into. But if they want a job that is less behind the scenes or they are not able to handle high stress, deadlines, and the need for flexibility on a daily basis, this probably is not the job for them. For graduate students specifically, she emphasized that it is important to get the most out of their program—to seek experiences, ask questions, and so on. She said when interning with field supervisors, students should make sure they get the real story that goes beyond the textbook and really embrace these learning opportunities.

Overall, Laura reported that during her 11 years working as a school psychologist, she has never dreaded going to work and has started every day knowing she might impact a child's life. She said while not every student will tell her verbally that she has made a difference, the moments when students do make it all worth it. She emphasized that school psychologists have a great opportunity to make a difference in the lives of students and school may be the only place some youth feel like they belong and are cared about. Laura said that for all these reasons, she loves her job and cannot ever see herself doing something different. She summarized by saying, "If you want to be an agent for change, this is a great field to be in."

Yolanda—Champion of the Underserved

Yolanda's career as a school psychologist has spanned 31 years and various positions at two different school districts, as well as a university. However, her introduction to the American school system started off a little rocky. Growing up in the Texas desert, Yolanda's first language was Spanish. Kindergarten was not offered in public schools in Texas but Yolanda's parents placed her in a private kindergarten to get an early start on school. After just a few months, Yolanda "dropped out" of kindergarten—feeling ignored by teachers because she did not speak English. The following year she returned to school to start first grade and had a somewhat better experience. However, in fourth grade, her father decided to close his business and the family moved to Mexico where Yolanda stayed through her early college years. Yolanda was grateful for this move, which allowed her to get a "fabulous" education—much better than she believes she would have been able to receive had her family stayed in Texas. Yolanda started a social work program in Mexico, but after attending a summer internship in California focused on learning disabilities, she instead decided to pursue a career in education. She made a permanent move back to the United States and completed an undergraduate degree in education. She then worked as a teacher for 8 years prior to completing her master's degree (with school

psychology certification). She then moved to a school psychology position in her district and continued her own education, eventually completing her doctoral degree.

Yolanda's initial job as a school psychologist was in a large urban school district in the western United States. At the time Yolanda was working in this district in the 1970s and 1980s, there was a large influx of families entering the area from the southeastern Pacific countries. The number of youth entering the district who did not speak English grew substantially. In the time she was there, the number of different languages spoken by families in the district rose to about 25 (she believes that currently over 50 different languages are spoken in this district). Yolanda and her colleagues learned a lot about culture and language, often, as she put it, "learning the hard way" and making some mistakes along the way. For example, the district teams did not fully appreciate at the time the varying cultural views on disability and were not prepared for some families to feel shunned within their culture when their child qualified for special education services. But the teams and individuals were responsive to what they were learning and worked to meet the needs of the families within their districts. Yolanda was fortunate to be part of a strong bilingual evaluation team that built culturally responsive practices into the system.

After 8 years in this district, Yolanda made the move to the Midwest. She worked at a university as an assistant professor for 2.5 years but missed the schools and so moved back to working full time as a school psychologist while continuing to teach as adjunct faculty at the university. Yolanda reported that she was hired by this district because the director wanted her to change the role of school psychologists in this district—to expand from a purely evaluator role to one of coordinator in overseeing services and providing support for youth and teachers. New changes in the special education law and the integration of interventions prior to evaluations facilitated the expansion of the school psychologist's role. School psychologists were in charge of student assistance teams, were part of leadership teams in schools, and provided professional development.

Referrals for special education decreased as school psychologists worked within a positive behavioral interventions and supports (PBIS) framework and as MTSS was embraced. But over time circumstances in the district changed, presenting challenges for school psychologists, teachers, and others.

The district where Yolanda worked experienced significant turmoil when the primary employers moved their manufacturing plants out of the area, leading to a tremendous loss in jobs and a substantial decrease in the district's student numbers. When Yolanda began her job, the district had 36 schools; currently the district has six elementary schools, one middle school, and one high school. A staff of five school psychologists work in this district. The families in the district are almost all low income (over 90% of students qualify for free or reduced-price lunch) and are predominantly Black. Yolanda noted that “families with financial means” in the area send their children to schools outside of their zoned district. She also noted that it has been challenging for the district to recruit school psychologists given the intense needs of students in the district, as well as the low pay.

The needs of the students in the district grew substantially following widespread exposure to lead in the environment, which severely impacted youth and their families given the toxic properties of lead exposure—especially on children's cognitive and behavioral development. There were huge increases in referrals for special education, increases in challenging behaviors, and decreases in parents' abilities to support their children. Yolanda said the district now has about a quarter of their youth in special education (a dramatic increase from when she started). She sees more learning problems and more behavior problems (that she believes are a direct outcome of the lead exposure) that are harder to control. Over the past 2 years, she reported that it has been very difficult to evaluate behaviorally uncooperative youth who have been severely impacted by the lead poisoning. She noted the need for “special teams” that are passionate about supporting these youth and their families.

Currently, in Yolanda's district, teams to support youth are school based and each school psychologist has two schools. In addition, given the intense needs of the students, every school has a behavior specialist, a counselor, and a nurse. Many schools also have therapists. However, these staff are all part of "regular education," leaving school psychologists working primarily in special education and conducting evaluations. After the shift in roles when Yolanda first arrived in this district to extend beyond the evaluator role, she has been sad to see the role return to predominantly one of evaluator. This has occurred as the demands for special education evaluations have increased, resulting in school psychologists having little time to engage in other activities. She reports that she does not dislike the evaluator role but feels like it is limited and that school psychologists had more of an impact with an expanded role.

While one might wonder why Yolanda has stayed in this district given the challenges, she reported that she would much rather work in a district like this one than one of the neighboring, more affluent districts where students are "entitled," and wealthy parents often bring their personal attorneys to special education placement meetings. In fact, Yolanda likes her job so much that after retiring several years ago, she quickly decided that retirement was not for her and returned to the district to continue working full time.

When asked about the challenges facing school psychology, Yolanda reported that the critical shortage of school psychologists is a major one. She believes this shortage has diminished the role of school psychologists, and as schools have attempted to find creative solutions to this shortage, it has made it harder for school psychologists to see "the whole [picture]," which may diminish their effectiveness. She also noted that health issues, due to an increase of environmental hazards throughout the United States, are having a major impact on youth. As an example, she pointed to the issues with lead poisoning in her district. And she discussed the challenges related to the COVID-19 pandemic and how this would impact youth. She noted that

increasing health and economic problems in the nation are affecting the students' cognitive processing, emotional health, and behavioral regulation.

When asked about the top three things she likes about her job, Yolanda reported that she “loves working with kids and establishing relationships.” She also noted that she enjoys working with school teams and the “incredible” and “dedicated” teachers and staff that are all there to help and support youth. Similarly, she reported that she appreciates being part of committees that work to meet the needs of youth and that she very much enjoys the problem-solving aspect of her job. In terms of dislikes, she reported being saddened when the role of the school psychologist is simply that of an evaluator. And while not necessarily a dislike of the job, she reported concerns about the extraordinarily challenging behaviors she is seeing in youth and being concerned about the health and well-being of youth and school personnel over time.

Yolanda's advice to future school psychologists included (1) be prepared for many different types of roles and develop the skills needed to perform these different roles; (2) take care of your own mental and physical health—do things for yourself and learn how to separate your personal and professional lives; and (3) go out and travel—get to know different cultures and different points of view—and look beyond the traditional middle-class value system that many of us have, to avoid making statements that can be harmful and hurtful to others.

Despite the challenges that Yolanda has faced in her career, she summarized by stating that she loves teaching and loves school psychology. She noted that she would most definitely make the same decision again to enter the field of school psychology. She is on the brink of retirement for a second time but her passion for serving students remains and she still cannot quite decide whether retirement is really for her.

Tying It Together

The variety, personal investment, challenges, and impact reflected in the professional lives of the three school psychologists featured in these vignettes could easily be duplicated by conducting similar interviews with any three randomly selected school psychologists. It is also noteworthy that professional lives evolve over time. The school psychologists profiled in this section have seen their career paths develop and change, as both the field and their personal interests have evolved. The same could be said for any school psychologist who is committed to making an impact in the field. Although tied together by a collective professional identity and associations, every school psychologist has a unique story, makes unique contributions, and follows a unique path. And yet there is a commonality among them that ties them together and reflects the shared vision and unique identity that defines school psychology. We believe that this vision and identity stem from a focus on impacting the academic, behavioral, and social–emotional problems of children and youth in educational settings through the effective use of psychological principles and procedures, all through the medium of school psychology. This vision is also clearly tied to the personal commitment and idealism of those individuals who choose to join the field of school psychology. Although school psychologists have differing backgrounds, job descriptions, expectations, and professional ambitions, as a group they share a collective desire to positively influence the lives of youth and their families. It is the incredible power of this collective individual idealism that fuels the impact and potential of the field.

How Does One Become a School Psychologist?

Having established a definition of school psychology and some of the characteristics of school psychologists, the next question that might be asked by someone exploring the field is “How does one become a school psychologist?” This question is dealt with in extensive detail in [Chapter 5](#), which covers training and credentialing issues. To help us establish our basic introduction to school psychology, a few of the more elemental details regarding the paths that must be traveled to become a school psychologist are covered in this section.

To become a school psychologist, one must have completed a graduate-level program in school psychology and have received a credential (i.e., a certificate or license) to practice in the field in a particular state. The specialist-degree level of training has become the minimum standard of preparation for entering the field. This level of training typically requires approximately 2 years of full-time graduate study beyond a bachelor’s degree plus a full-time 1-year school-based internship. NASP standards specify that the specialist standard of preparation requires a minimum of 60 semester credits of graduate study, including a 1,200-hour internship. Because these standards are integrated into NASP’s Nationally Certified School Psychologist (NCSP) credential (which is promoted and offered by NASP’s National School Psychology Certification Board; www.nasponline.org/standards-and-certification/national-certification), the 60-credit/1,200-internship-hour specialist level of training has become the de facto standard in the field. It is worth noting that while many graduate programs offer a specialist degree by that name (educational specialist [EdS]), others provide an equivalent level of training through a master’s degree (master of science [MS], master of arts [MA], or master of education [MEd]) or certificate of advanced study (CAS). It is not the actual degree

earned that is important but the hours and experiences that are part of that degree that matter.

Although the efforts of NASP to advocate for minimum training at the 60/1,200 specialist level have created a general standard, it is important to recognize that neither NASP nor any other professional organization actually credentials school psychologists for work in the field. There is no national-level licensing body that provides clearance to work as a school psychologist anywhere. Rather, credentialing of school psychologists is the responsibility of individual states and provinces. For school psychologists to work in public school settings, they must usually obtain a credential, which may be called a certificate or a license, from the educational licensing agency (e.g., the state board or office of education) of the particular state or province where they intend to work. In addition to educational credentialing, some states (e.g., Texas and Louisiana) also credential specialist-level school psychologists through state licensing boards for psychology. Each state sets its own standards for entry into the field in that state, and some states have lower entry-level requirements than others. However, the NASP-advocated specialist level of training is almost always sufficient for credentialing in any state or province. In addition, increasingly states are accepting the NCSP and granting the state credential/license to anyone who holds this national certification.

For school psychologists who wish to practice outside of a school setting, there is another level of credentialing that is required. To become licensed as a psychologist to practice independently or to practice in settings such as hospitals, clinics, and community mental health agencies with the use of the title “psychologist,” one must hold a doctoral degree (i.e., doctor of psychology [PsyD], doctor of education [EdD], or doctor of philosophy [PhD]) in psychology (school psychology, counseling psychology, or clinical psychology) and be licensed by the professional psychology licensing board of a particular state or province. The doctoral level of professional psychology training, which includes a yearlong supervised predoctoral internship, is what is advocated by APA and its various state affiliates.

However, the APA position, as well as most state psychology licensing laws, includes provisions for the use of the title “school psychologist” (as opposed to “psychologist” or “licensed professional psychologist”) with less than the doctoral level of training and without a psychology license, providing that the work is limited to school settings and is conducted under the banner of a school psychology credential from a state department/office of education.

As discussed in more detail in [Chapter 5](#), there are over 250 institutions of higher education in the United States that provide graduate training in school psychology at some level. Most of these institutions have specialist-level programs only, but a number (approximately 70) have both specialist and doctoral programs, with a smaller number (approximately 25) offering only doctoral programs. Although the specialist level of graduate training has become the standard and typical mode of entry into the field for most school psychologists, a substantial percentage of school psychologists have earned doctoral degrees. A recent estimate is that around 23% of school psychologists have doctoral degrees (Goforth, Farmer, Kim, Naser, et al., 2021).

Individuals who enroll in school psychology graduate training programs have a variety of undergraduate backgrounds, the most common of which are psychology and education. A generation ago, it was not uncommon for individuals entering the field of school psychology to have had backgrounds in education, perhaps some experience as teachers, and in many cases to be midcareer (i.e., in their 30s or 40s), but these background characteristics appear to be less common now. We are not aware of any studies or data that have tracked the age, undergraduate preparation, and background of students entering school psychology programs over the years, but it has been our experience that the trend has been toward students entering graduate school in their early- to mid-20s, more often than not with an undergraduate degree in psychology, and often with limited volunteer or professional experience in psychology or education. We anticipate that as the education and mental health fields become increasingly professionalized, and as higher levels of educational attainment become more common, these

trends in school psychology training will continue and become even more noticeable.

Differentiating School Psychology from Related Professions

In addition to understanding what school psychology is all about and how one becomes a school psychologist, prospective graduate students who are beginning to explore the possibility of a career in this field must also decide whether to pursue school psychology or some closely related field. As school psychology faculty members, we visit with prospective graduate students on an ongoing basis. Although many prospective school psychologists have a clear idea of what being a school psychologist involves and how school psychology differs from other, related fields, many more do not. Most school psychology trainers have likely sat through meetings with prospective students who assumed that they were considering entering a school counseling training program, for example. Because there are differences not only in the entry-level requirements but also in the typical role and function of various fields, it is important for prospective graduate students to get a clear picture of how school psychology is both similar to and different from other fields in psychology and education.

Related Fields in Psychology

At the doctoral level of training, there are other areas of professional psychology that overlap considerably with school psychology and that may prepare professional psychologists to work with children, adolescents, and their families. Historically, school psychology has been included with two other fields—*clinical psychology* and *counseling psychology*—as one of the three applied areas of professional psychology. Completing a doctoral program in any one of these three fields will, in part, prepare one to become a licensed professional psychologist and be eligible to work in a variety of clinic, private practice, community, and medical settings. Clinical and

counseling psychology programs have not traditionally focused on schools and educational issues as school psychology has, and they do not typically prepare students to work primarily in school settings. However, many clinical and counseling psychology programs focus on working with children, adolescents, and their families and provide a path toward a predoctoral internship and career in a child-focused setting, offering assessment, intervention, and consultation services. Historically, there have been some important differences between clinical and counseling psychology, with the former field focusing more on psychological disorders and psychopathology and the latter on typical developmental and adjustment issues of life. However, these distinctions have become increasingly blurred in recent years, and today it is not uncommon to find clinical psychologists working in college counseling centers and counseling psychologists working in hospitals and community mental health clinics.

Within clinical, counseling, and school psychology, some subspecialties focusing on children, youth, and their families have emerged in recent years, and these subspecialties are usually not specific to one field of psychology. For example, just as APA has a division devoted to school psychology (Division 16), it has separate divisions devoted to child, family, and youth services (Division 37); clinical child and adolescent psychology (Division 53); and pediatric psychology (Division 54). Child and adolescent neuropsychology has also emerged as a strong subspecialty within the division of neuropsychology (Division 40). These specialty areas include doctoral-level psychologists who are graduates of school, clinical, or counseling psychology programs; have received specialty training; and have developed particular expertise and interests in the respective specialty area.

With these related psychology fields and specialty areas, school psychology shares a focus on children, youth, and their families. What makes school psychology unique among these related areas within psychology, however, is the specific focus on schools as practice settings and on educational and learning issues in addition to mental health concerns.

Although some overlap exists among these areas, they all have a unique identity.

Related Fields in Education

Because school psychology is rooted in education as well as psychology, there are professions specific to education with which we share some professional overlap. School counseling is perhaps the best known of these related educational professions. This field grew out of the “mental hygiene” and child guidance movements of the early 20th century, and its focus has evolved from vocational guidance and college placement to the promotion of a comprehensive model of student development, adjustment, and growth at all grade levels. The American School Counselor Association has been in existence since 1952 and currently has more than 27,000 members internationally. Many more school counselors than school psychologists are employed in schools. Within the United States, the national average ratio of school counselors to students is approximately 1:460 (see <https://www.schoolcounselor.org/About-School-Counseling/School-Counselor-Roles-Ratios>) whereas the national average for school psychologists is estimated at about 1:1,440 (NASP, 2017b). In terms of differences in training and job focus between the two fields, school psychologists tend to receive more training in individual assessment methods and intervention techniques than do school counselors and have historically focused more on students with disabilities. School counselors are more likely to be assigned to work at a single school, whereas school psychologists are often itinerant and may have responsibility for multiple schools or may work on a district-wide basis. Much of this difference in site-based versus itinerant service models is related to the large differences in professional-to-student ratios.

In addition to school psychologists and school counselors, *school social workers* are also employed in public and private schools. This profession is part of the larger field of social work, and it began in the early 1900s when school social workers had the title of “visiting teachers.” Today, school social

workers continue to have a focus on interdisciplinary, collaborative care working with school and community personnel to best meet the needs of students. School social workers often provide a range of services, including direct mental health services as well as consultation and resource connection for children and families. (For more information on school social workers, see <https://www.socialworkers.org/practice/school-social-work> and <https://www.sswaa.org>.) It is widely understood that there are fewer school social workers than school psychologists, although an exact professional-to-student ratio is not known.

Although school counseling and school social work are the two best-known professions within education that are closely related to school psychology, there are other professional roles in schools that have much in common with our field. These other roles are not necessarily defined as separate professions but have evolved as specialty positions in education in many school systems. Special education consultants, service coordinators, behavior specialists, or consulting teachers are often employed in larger school districts and have the responsibility of working with teachers, other educators, and parents in developing appropriate educational programs for students, especially those who are placed at risk for negative outcomes or who are otherwise having difficulty in school. Such consultant or coordinator positions are often filled from the ranks of experienced and talented teachers, but sometimes they are filled by individuals with school psychology backgrounds. These roles usually involve extensive indirect intervention through consultation, and they may have a problem-solving or training focus as well. In addition, some schools hire teachers or counselors to serve as educational diagnosticians or educational assessment specialists. These types of positions include an exclusive focus on individual assessment of students with learning and behavior problems and on the surface they seem quite similar to the role of school psychologists who are in traditional “test-and-place” assessment roles.

Although most school psychologists remain employed with that title, those who have the interest to pursue other roles within schools often find

that there are opportunities for career shifts within school systems. Some school psychologists move into educational leadership positions, such as pupil personnel directors, special education administrators, and school principals. Typically, career moves of this type require the individual to obtain additional graduate-level education in order to receive an administrative credential. School psychologists who have particular expertise in research methods, statistics, and psychometrics sometimes move into district-level positions as directors of research services, directors of testing/assessment and analysis, and so forth.

Using This Book: A Vision for School Psychology

As stated in the preface, this book is designed to provide an introduction and orientation to the field of school psychology. We especially intend for this book to be of interest to graduate students who are beginning to prepare for careers in the field of school psychology. This book is also designed to be an exploratory resource for individuals who are considering careers in school psychology, as well as those who are currently working as school psychologists and are interested in a contemporary guide to this dynamic and exciting field.

[Chapter 2](#) of this book provides brief overviews of the historical context of the field, as well as of history and trends in American education. [Chapter 3](#) provides an overview of the data-driven approach to the problem-solving model of school psychology—and its application within an MTSS service delivery framework—upon which this book is based. [Chapters 4–7](#) provide a foundation for the professional practice of school psychology, focusing on cultural and linguistic diversity, training and credentialing issues, employment trends and challenges, and legal and ethical aspects of practice in this field. [Chapters 8–12](#) detail our vision of best practice in school psychology and focus on the wide range of goals that we believe school psychologists should pursue, including assessment, prevention and intervention, facilitation of systems-level change, and involvement as a consumer and producer of research and evaluation. [Chapter 13](#) provides some concluding comments regarding moving the field of school psychology forward and mapping our own future as professionals. Together, the 13 chapters in this book provide a comprehensive introduction to the field of school psychology.

You may have noted that we use the phrase *school psychology for the 21st century* in the title of this book. Our focus on the 21st century was a

deliberate choice. In deciding to write this book, we were not interested in simply providing an overview of the history and current status of the field, which have been well documented in other sources. Rather, we were interested in promoting a forward-thinking vision of the exciting and dynamic possibilities within the field of school psychology. We believe that the field of school psychology has much to offer and that its potential is just beginning to be realized. The possibilities of this field making a strong positive impact in schools and other settings, and in the lives of children, adolescents, and their families, are simply enormous. We also recognize that there are still several barriers to achieving this vision. But we believe that through a concerted effort over time, school psychologists can individually and collectively advance the field at all levels, and in doing so, school psychology will make increasingly significant and valuable contributions to promoting the well-being of youth, caregivers, and the communities where they live, learn, and grow together.

Although each chapter within this book is unique, they were developed through a collective vision. Some of the “big ideas” on which this book and our vision for the field of school psychology are based include the following:

- The general fields of psychology and education, as well as the specific field of school psychology, have given us rich and sometimes challenging historical precedents for the present practice of school psychology. Although it is important to have a strong understanding of these historical elements and how they have shaped the present, we agree with the premise that *the past is not necessarily the future* (Reschly & Ysseldyke, 2002), and we advocate that the time has come for the field of school psychology to move forward from some of the historical challenges that have limited it in realizing its full potential.
- School psychology practice should be data oriented or data driven. School psychologists should base their decisions on valid data and use

effective data collection techniques to inform, monitor, and modify intervention activities (see [Chapter 3](#)).

- Within the United States, society has become increasingly diverse and pluralistic with respect to cultural backgrounds; racial, ethnic, gender, and sexual identities; and the languages of its citizens, and it will continue to become increasingly diverse during the 21st century. School psychologists should practice in a culturally responsive manner so that they can work appropriately and effectively with individuals and groups from a variety of backgrounds and with diverse and intersecting identities (see [Chapter 4](#)).

- School psychology has been and should continue to be primarily focused in school or other educational settings. The educational setting is a main focus of our vision and of this book. However, school psychologists have much to offer outside the context of school settings, and we encourage the practice of school psychology in a variety of settings and contexts (see [Chapters 5](#) and [6](#)). We also strongly encourage school psychologists to facilitate and participate in collaborative care with allied health professionals (see [Chapter 10](#)).

- Individual psychoeducational assessment of children and adolescents has been and will continue to be an important activity of school psychologists. However, individual assessment activities should do more than simply describe or diagnose problems. Rather, the most useful assessment strategies are those that are part of the problem-solving process and provide a foundation for effective interventions (see [Chapter 8](#)).

- School psychologists have historically worked with a limited segment of student populations, primarily those who have or are suspected of having disabilities and those who are otherwise placed at risk for negative outcomes in life. We believe that there will always be a need for school psychologists to focus some of their effort on the small percentage of students who have serious learning, behavioral, and social–emotional problems. We also recognize that longitudinal research points to the chronic nature of such

problems and the critical need for *early* intervention/prevention if negative long-term outcomes are to be curtailed. Thus, we strongly contend that school psychologists should use their unique expertise to positively affect *all students in school settings*, not just those who have severe needs (see [Chapters 3, 9–11](#)).

- By focusing our scope of practice on *all* students within school populations, school psychologists are well positioned to promote social justice and address the educational and health disparities experienced by minoritized and marginalized youth, families, and communities (see [Chapter 4](#)).
- Although assessment activities have had and will continue to have an important place among the school psychologist's varied responsibilities, effective prevention and intervention activities—organized through an MTSS framework—should occupy a significant percentage of school psychologists' time (see [Chapters 3, 9, and 10](#)).
- Prevention and intervention activities can occur with individuals and within small groups, classrooms, entire schools, and school district or community-based contexts. School psychologists should engage in prevention and intervention activities, including consultation at each of these levels, so that a larger number of individuals may be positively influenced (see [Chapters 3, 9, and 10](#)).
- School psychologists do not typically function in isolation but instead work in consultation and collaboration with others and as part of a system. School psychologists should strive to use their expertise to develop a solid understanding of the systems in which they work and to help facilitate systems-level change as needed (see [Chapter 11](#)).
- School psychologists should be savvy consumers of research and should have the skills to engage in research and evaluation activities within their respective settings to help to advance practice (see [Chapter 12](#)).

- School psychology is a field with incredible potential for helping to solve the “big” problems facing education. And yet this potential is still largely unrealized. We believe that school psychologists should play an active, important, and essential role in this regard. This book is built on the foundation of a progressive, forward-thinking vision of school psychology, and we are optimistic that, collectively, individual school psychologists can continue to move the field forward through their efforts (see [Chapter 13](#)).

In sum, we believe school psychology is a dynamic and exciting field that has incredible—and still unrealized—potential for positively affecting education, psychology, and the lives of children, adolescents, their families, and their communities. It is our hope that this book provides a useful and engaging guide to the field of school psychology that will help to continue moving the field forward.

Discussion Questions and Activities

1. Individuals who are being introduced to the field of school psychology are often surprised to find that the definition of school psychology is not necessarily clear-cut and has, at times, been a point of controversy. Discuss the power of definitions and how they can shape the field of school psychology and how it is perceived.
2. During the past several decades, the characteristics of school psychologists have changed somewhat. Outline some of these changes, and describe the current characteristics of those who work in the field of school psychology.
3. Interview one or more school psychologists in your area. Find out how they entered the field; what their career trajectory has been; what their responsibilities and roles are; and how they spend a typical day, week, and month in their workplace. Ask them what they like most or find most rewarding about their work as well as what they find to be most frustrating or difficult.
4. One of the first decisions that new graduate students in school psychology make is whether to pursue a specialist-level degree or a doctoral degree. How do the two levels of training differ, and what are the costs and benefits, or pros and cons, of each?
5. Differentiate the training and roles of school psychologists at the doctoral level from that of the two other primary areas of professional psychology: clinical psychology and counseling psychology. Differentiate the training and roles of school psychologists at the specialist level from that in the fields of school counseling and school social work.

Chapter 2



The Historical Context of School Psychology

In comparison to many other established scientific and academic fields, school psychology is relatively young. It has been in existence for over a century, starting as a blend of educational and psychological practice from 1890 to 1969 and shifting into a more organized professional entity from 1970 to the present (Fagan, 2003). To fully understand the field of school psychology in the 21st century, it is essential to understand its roots. As can be inferred from [Chapter 1](#), we agree with Reschly and Ysseldyke's (2002) observation that the past is not necessarily the future with respect to the field of school psychology, and we also believe that a basic understanding of the past is essential if we are to continue to move the field forward. To understand how the past informs the future, we need more research that explores what leading scholars in the field believe are historically the most important ideas and studies, as these perspectives shed light on how the past shapes current trends (McIntosh, Martinez, Ty, & McClain, 2013).

This chapter provides a brief excursion into the historical context of school psychology. First, we explore its philosophical and intellectual foundations, ranging from classical Greek to modern European influences. Some of the major events, movements, and individuals in the emergence of the field of psychology in general, and the field of school psychology in

particular, are examined. We then detail aspects of the historical context of American education as they relate to the development of school psychology. We provide an overview of major events and issues in the development and professionalization of the field of school psychology and link them to the recent history of the field, with a particular emphasis on legal developments and training and credentialing issues that have had a strong impact on the recent history of school psychology. Ongoing tensions or “culture wars” that have surrounded school psychology’s rise to prominence are examined, including values conflicts within various dimensions of the field and the historical and current differences between the two primary organizations representing the field (i.e., APA and NASP). The chapter ends with some discussion of what lessons and trends have been apparent in the history of the field and what these issues may portend for the future.

Philosophical, Intellectual, and Social– Cultural Foundations

The most influential historian in school psychology, Thomas Fagan, has stated that “no significant aspect of contemporary school psychology, including its practitioners, training programs, or credentialing, existed before the 1890s” (Fagan & Wise, 2007, p. 25). Thus, one might assume there to be no point to tracing the historical context of the field prior to the late 19th century. However, it is important to recognize that school psychology’s emergence was the product of a confluence of social, political, and educational forces, as well as timing. Thus, it is useful to look at some of the more notable historical events that contributed to the birth of school psychology and also to the larger fields of psychology and education in general.

Classical Greek Influences

Psychology is considered to be a Western discipline, as its philosophical, intellectual, and cultural foundations stem from ancient and modern forces flowing from the classical world of ancient Greece to modern Europe. According to Leahey (1987), there is no distinctive aspect of psychology that cannot be traced to the philosophical world of the Greeks. Most modern psychological thought can be traced to the various philosophies espoused and shaped in succession by three prominent Greek philosophers: Socrates (470–399 B.C.), his student Plato (428–348 B.C.), and particularly Plato’s student Aristotle (384–322 B.C.), a founder of the philosophy of science who was known as the “first professor.”

Socrates was an itinerant teacher whose work focused on the meaning of general ideas or constructs, especially truth, justice, and beauty. He was antagonistic toward the Sophists, a group of Athenian teachers who

espoused a worldview that we might today call *humanistic relativism* or *postmodernism*. The Sophists proposed that “man is the measure of all things,” meaning all experience is subjective and that it is not possible to derive an ultimate reality because of individual differences in the way that reality is perceived. Socrates believed that the ideas of the Sophists were dangerous and could lead to moral anarchy. By posing provocative questions that contrasted sharply with the Sophists’ views, he promoted the notions that ultimate general truths existed and enduring laws or principles could lead to such truth. Socrates did not provide answers to most of his own questions. Rather, it was his famous student Plato who provided answers through written dialogues based on Socrates’s questions.

Plato extended Socrates’s quest for general universal truths to encompass a quest for *all* forms of knowledge. Thus, *epistemology*, the study of theories of knowledge or various *ways of knowing*, was born. Although Plato was concerned with ways of deriving knowledge, his focus and methods did not lend themselves well to the scientific study of human behavior. It was Aristotle who first promoted the philosophy of empiricism, the theory that knowledge is based only on what can be perceived through the senses, which became a foundation of modern psychology. Aristotle’s views were in many ways antithetical to those of his teacher, Plato. Aristotle moved away from the somewhat mystical ideas of Plato and firmly established a foundation for scientific thought that was based on observation. It is worth noting that Aristotle was the first to conduct a systematic “literature review” of the works of earlier thinkers (Leahey, 1987), laying the groundwork for particular problems that later became a bedrock practice of psychological science and a practice familiar to any graduate student in school psychology.

The cultural, artistic, and philosophical activity of the Greek and Roman worlds began to decline noticeably around 300 A.D. By the fall of Rome in the late 5th century, the intellectual energy characterized by the work of the Greek philosophers dissipated, and it was centuries before there was a revival of significant cultural and intellectual life in the Western world. The Dark Ages marked a long period of retrenchment in these areas, and it

affected every level of society. Despite the ending of the incredible accomplishments of the classical era, an important legacy remained. One of the hallmark intellectual tensions that emerged in the Greek period—the conflict between rationalism and empiricism—carried into greater European culture and became one of the primary foundational influences that led to the emergence of psychology.

Modern European Influences

By the time the new discipline of psychology emerged in the late 19th century, and public education was becoming an increasingly important aspect of American society, the Western world had emerged from centuries of intellectual and artistic retrenchment. During the church–state-controlled medieval period, virtually the only persons who could read and write in most of Europe were clerics, and rigid rules were imposed regarding the development and dissemination of written literature. In addition, questions regarding the structure, function, and meaning of human behavior, which flowed with great energy during the classical period, became the nearly exclusive province of the religious orthodoxy. Individuals who dared to challenge the status quo often put their liberty and even their lives at risk. A couple of famous examples illustrate very well the rigid and oppressive hierarchical intellectual climate of those times. Italian scientist–philosopher Galileo Galilei (1564–1642) spent the latter part of his life under house arrest because his Copernicanistic views of the universe (i.e., that the earth and other planets revolved around the sun) were found to be heretical. Protestant scholar and Englishman William Tyndale (c. 1494–1536) was brutally killed and his body burned for the offense of secretly translating much of the Bible from Greek into English and making it available to nonclerics. By the 17th century, the modern scientific revolution had begun. Prominent figures such as René Descartes (1596–1650) and John Locke (1632–1704) emerged and revitalized the philosophy of science and its empirical and epistemological roots. Descartes wrote and taught regarding

the process of seeking truth, in a skeptical manner, of the native physical or material structure of the world, and importantly, of the *dualism* of the body and mind of humans, which he saw as distinct elements. Descartes's identification of thought as a central component of human experience led him to coin his famous axiom "I think, therefore I am." Locke, on the other hand, dismissed the notion of innate moral and metaphysical truths and advocated discovering truth through personal experience. An important aspect of Locke's work for the formation of psychology and the advancement of education was his focus on the mind and on the process of using reflection or introspection to gain knowledge. In many ways, Locke's work was a precursor to the science of the mind, paving the way for theories of intelligence, learning, and cognitive processing.

Other 17th-century thinkers also provided important foundations for the emergence of psychology and the refinement of educational pedagogy. For example, Thomas Hobbes (1588–1679) was the first intellectual to explore the connection between the development of speech and the development of reasoning. He also introduced the concept of *natural law*, the notion that there were regulations inherent in nature, whether or not humans recognized them. This concept was a precursor to the psychological tenet that behavior is lawful and is governed by basic principles, a concept that became important in behavioral psychology.

The 18th century is considered a period of enlightenment in the Western world, with major developments (and revolutions) in science, philosophy, art, and politics. Many of the developments of this period provided a further foundation for the emergence of psychology in the next century. David Hume (1711–1776) was a moderate skeptic who wrote extensively on the notion of *habit* or *custom*, the propensity to behave, think, and feel in customary and predictable ways. Hume desired to apply Newtonian-like laws to predict human behavior, using the technique of introspection to generate his ideas. One particularly psychological contribution of Hume was his development of a classification of the contents of the human mind,

which focused on perceptions and distinguished between impressions and ideas.

In opposition to the notions espoused by Hume and various other skeptics, a school of thought emerged out of Scotland by the mid-18th century that espoused “common sense” in analyzing and understanding human behavior. This assertion of common sense, typified by the writing of Thomas Reid (1710–1796) and his student Dugald Stewart (1753–1828), ridiculed the claims of philosophy and posited that everyday experience provides a better foundation for understanding human thought and behavior than the theories of skeptics, which they considered to be absurd. The writings of these men dissected the mind into component faculties and advocated the practical value of the study of human behavior and thought. One of the foremost thinkers of the century was German philosopher Immanuel Kant (1724–1804). Kant developed a science of understanding humanity that he called anthropology but which actually bears more similarity to psychology. He studied human intelligence, moral character, the notion of self, and other constructs later important within psychology. Kant’s work influenced fellow German Wilhelm Wundt, who later developed the first psychology laboratory at Leipzig University.

Another Enlightenment-era figure whose writings proved to be highly influential in psychology (and in education and politics) was Genevois (a former province in Western Europe) philosopher Jean-Jacques Rousseau (1712–1778). Rousseau became known for many things, including his influence on political revolutionaries Karl Marx and Friedrich Engels. Marx and Engels were intrigued with Rousseau’s notions of free will, the innate freedom of humans, and his criticism of Enlightenment-era scientific and technological advances, which Rousseau viewed as chaining or enslaving people. Rousseau also advocated for education as the means of overcoming the corrupt state of civilization. Rousseau was one of the first intellectuals to discuss in detail the *nature versus nurture* dichotomy (i.e., behavior is inherited vs. learned) and he weighed in on the side of nurture, believing that external conditions and influences, rather than innate drives, shaped

the individual. Interestingly and somewhat paradoxically, his belief in human malleability foreshadowed B. F. Skinner's advocacy of using a carefully controlled society to enhance human potential (as espoused in his book *Walden II*, in which he admitted to shouting at his animal research subjects, "Behave damn you! Behave as you ought!" when his predictions went awry) and also served as inspiration for "whole child" education advocates (e.g., Maria Montessori), who rejected highly structured and sequenced teaching of basic skills.

In sum, 17th- and 18th-century intellectual developments, which are often referred to as the Age of Reason and the Age of Enlightenment, respectively, helped move Western thinking out of the Dark Ages and provided the intellectual foundation for the birth of psychology, as well as developments in education, and provided an impetus for the birth of school psychology. Unlike the classic Greek philosophers, whose work was foundational for psychology, many prominent intellectuals of the 17th and 18th centuries concerned themselves with issues and constructs that were distinctly psychological, regardless of the fact that the field had not yet emerged.

The Emergence of Psychology

Although the foundation of psychology had been laid in the preceding centuries, the discipline formally emerged in the mid- to late 19th century, first in Europe, and then in the United States. Certain 19th-century influences made a strong impression on the emerging field. One of the foremost influences was the work of English naturalist Charles Darwin (1809–1882), whose elucidation of a scientific theory of natural selection in evolution revolutionized science. His 1859 seminal work *On the Origin of Species* broadly influenced Western intellectual circles, and his later works on the descent of humans and the expression of emotions in humans and animals became cornerstone literature in the fledgling field of psychology. Another was German physiologist Franz Joseph Gall (1758–1828), who developed the “science” of phrenology: the description and prediction of human traits from bumps on the head and the shape of the cranium. Although phrenology is now relegated to a status only slightly higher than an amusing footnote, it must be understood that it was an enormously influential enterprise. Phrenology focused the seat of human behavior clearly on the brain, correlating specific regions of the brain with specific behavioral functions. In a sense, Gall’s pseudoscience of phrenology was the first formal expression of physiological psychology, especially the study of brain–behavior relationships.

By late in the 19th century, the discipline of psychology became legitimized, and three forms of psychology had emerged: the psychology of consciousness, the psychology of the unconscious, and the psychology of adaptation. German scientist and philosopher Wilhelm Wundt (1832–1920) is credited with establishing the first psychology laboratory in 1879 and establishing psychology as an independent experimental science. Wundt’s work focused on the experimental study of individual consciousness. On the other hand, Viennese physician Sigmund Freud (1856–1939), who is

credited as being the father of psychiatry, introduced ideas as radical as Darwin's by suggesting that unconscious desires and motives shape much of human behavior. Freud's deterministic views of human behavior and the unconscious were truly revolutionary. Although many of his theories have now been rejected even by proponents of the psychodynamic approach he pioneered, one must not overlook the enormity of his contributions and influence. Even today, his metaphor of the conscious mind as being the "tip of the iceberg" of human experience is widely used—the notion of the "subconscious" mind is part of the popular vernacular. Anna Freud (1895–1982), Sigmund's daughter, developed the field of child psychoanalysis. Her work made important contributions to the field of child psychology, as well as developmental psychology more broadly with her focus on the importance of the developmental process. Erik Erikson (1902–1994), who is best known for his theory on psychosocial development, studied under Anna Freud. Finally, the psychology of adaptation, with roots in Darwin's theory of natural selection, focused on how the individual adjusts to the environment and how the environment shapes behavior. This psychology later developed into behaviorism, which became perhaps the most influential force of the 20th century in psychology.

By the end of the 19th century, psychology moved from an emerging to an established field. European and North American universities offered psychology curricula and began awarding academic degrees in psychology. The APA was formed in 1892. Seminal texts were published, and scientific journals were established. Although the clinical or practical application of psychology was not yet developed, all of the pieces were in place for that to happen. Furthermore, through these events and forces, the conditions that allowed for the development and establishment of school psychology were set in motion.

Developments in U.S. Education

We have tried to make it clear that the field of school psychology was hatched from a confluence of intellectual and social developments in both psychology and education. The following section provides additional discussion regarding some of the important historical developments in U.S. education that were important in this convergence.

Colonial Foundations

Although most educational historians have identified the period of about 1825–1875 as *the* era during which the building blocks of U.S. public education were put into place (i.e., Butts, 1978; Calhoun, 1969), there were important historical antecedents during the prior two centuries that led to this series of developments. During the U.S. colonial period in the 17th century, public schools as we now know them did not exist, but the idea of public education began to sprout, particularly in the New England colonies. Although there was generally no public taxation for schools or compulsory education laws during this period, the notion of education for the public good became more prominent, and the idea that formal education of youth would serve a greater civic purpose began to take hold. Most of the formal efforts to educate young people involved a primary component of religious instruction, and the preparation of future clerics was a major emphasis in this regard. By the early to mid-1700s, colonial society was becoming increasingly pluralistic with respect to religious views (albeit within the general Christian worldview, particularly the Protestant version; see Smith, 1967). Tensions were increasing regarding the appropriate place of religious instruction and influence within civic or public life and the legitimacy of public efforts to promote the superiority of one religion over another (Butts, 1978). These tensions ultimately helped lead to the “establishment” clause in

the U.S. Constitution (which prohibits the government from making laws regarding the establishment of a religion) and to the weakening of legal bonds between established churches and new states following the revolutionary period.

With the development of the first state constitutions in the late 1700s, some states (such as North Carolina, Georgia, and Pennsylvania) adopted specific provisions for public schooling, although it would be many years before these efforts resulted in a strong system of public education. During this same time period, there was considerable national tension between those leaders who favored a strong centralized role for national government (the Federalists) and those who advocated for a weaker federal system and the sovereignty of individual states (the Democratic Republicans). During this late 18th-century debate regarding the proper role of the federal government, several prominent voices argued in favor of a strong national system of public education, including a national university—goals that never came to fruition. Ultimately, the framers of the U.S. Constitution left somewhat vague the appropriate role of the federal government in public education, with education considered a “creature of the states.” As the 19th century emerged, conditions varied greatly from state to state regarding public education efforts, which had not yet risen as a visible, identifiable entity (Butts, 1978; Calhoun, 1969).

19th-Century Steps

During the 1800s, significant steps were taken toward the development of systems of public education. Underlying this development was the growing belief that voluntary and private efforts to formally educate young citizens within the United States were insufficient and that the new democracy could not flourish under such conditions. As many of the cities in the northeastern United States grew rapidly with industrialization, so did the number of poor and uneducated youth. This, along with deteriorating social conditions, led to a public outcry to reverse the trend and improve the situation. As a result,

“common schools,” spearheaded by Horace Mann (1796–1859) and the precursor to today’s public schools, began to be established (Butts, 1978; Ravitch, 1974), primarily in the mid-Atlantic and New England states but also in Virginia and the Carolinas. The growth of the abolition of slavery movement and the relative lack of common schools in the southern states set the stage further for the development of public systems of education.

Following the horrors of the Civil War and the end of the institution of slavery, the United States was in massive debt, many of the southern cities were in shambles from the war, and the industrialization that had swept the northern cities slowly began to move to the urban areas southward. Thus, the Reconstruction period saw further expansion of the common schools, increasing efforts to ensure that Black youth received a public education, and an expansion of compulsory schooling laws, particularly in urban centers (Best & Sidwell, 1967; Tyack, 1967). This period of expansion was aided by the increasingly centralized power of governments at both the state and national levels. As governmental authority became more centralized, typically a concurrent increase occurred in efforts to promote common schools and to provide a financial base from which to support them (Berlin, 1974).

20th-Century Developments and Persistent Issues

By the early 1900s, the combination of (1) systems of public and compulsory education in the United States, (2) social conditions following industrialization and reconstruction, and (3) the emergence of new educational tools and scientific technologies, was becoming extremely complex. The field of public education began to grow rapidly at the same time that the budding discipline of psychology was emerging in the United States. Thus, the conditions were in place that allowed, or perhaps required, the incipient field of school psychology to begin its toehold during what has come to be known as the Progressive era in American social history (Tyack, 1967). One of the greatest impacts of the Progressive era on education was

the combination of more far-reaching child labor laws (i.e., restrictions on the employment and abuse of child workers) and compulsory education laws (i.e., required period of education for all people imposed by the government). By the end of the first decade of the 20th century, all states had compulsory education laws of some type in place, and by 1920 almost all U.S. children attended schools, at least through the elementary school level (History of American Education Web Project, 2004; Tyack, 1967).

Before we move into the beginnings of the field of school psychology, it is worth considering that by the first quarter of the 20th century, two persistent and significant issues in U.S. education had developed that would have long-lasting implications for school psychology: (1) the development of the IQ or mental ability testing movement and (2) the common state of racial segregation and inequality in schools. We consider these two issues in more detail because they both have had, and continue to have, a major impact on school psychology. The movers in the mental ability testing arena had, by the end of World War I, developed great confidence in the potential of IQ tests to measure the human mind, and this confidence spread throughout much of public education. Most of the individuals who were influential in this movement, such as Lewis Terman (1877–1956) and Henry Goddard (1866–1957), held a *nativist* view of intelligence, interpreting it as inherited, essentially fixed, and difficult if not impossible to modify in any meaningful way through education.

The power of the IQ testing movement became enormous and led to what distinguished educational historian Diane Ravitch (2000) termed “a brutal pessimism” regarding educational programming, tracking, and opportunities. In essence, the results of IQ tests were used—initially with little criticism—to determine in great measure individuals’ opportunities and future. Ravitch wrote:

The intelligence testers promoted fatalism, a rueful acceptance that achievement in school is the result of innate ability, not sustained effort by teachers and students. The cult of the IQ became an all-purpose rationale for students’ lack of effort and for poor teaching: Why

study hard in school if IQ predicts outcomes? Why work hard to teach slow learners if their IQs predict they cannot do well in school? (p. 161)

As anyone familiar with school psychology knows, the development of the field ultimately became inextricably linked with the IQ testing movement, a connection that, we argue, plagues the field to this day despite the more recent influence of multi-tiered systems of support (MTSS) approaches to the prevention and early intervention of school failure. The role of IQ testing is still commonly cited as a barrier to school psychologists' ability to focus on the broader range of skills in prevention, intervention, and consultation, in which they are trained. This issue is discussed in greater detail in several other chapters of this book. It is also worth considering that the IQ movement influenced U.S. education well beyond the practice of school psychology. The practices and notions that came from this movement were often used as a basis for excluding children with disabilities from public schools (an issue discussed in more detail in [Chapter 7](#)), for routing students into vocational versus academic tracks, and for reducing the focus on alterable variables (such as student and teacher effort, curriculum delivery, and school structure; see [Chapter 9](#)) within schools (Ravitch, 2000).

With respect to racial segregation, tension, and inequalities in U.S. public education, the struggle has been long and divisive, and it has taken legal precedents from the nation's highest courts to steer improvements and standards that are still evolving and trying to fulfill their promise. During the colonial period and the early years of the nation, public education efforts were aimed almost exclusively at White children: Native Americans were essentially left out; Asians and individuals of Hispanic/Latinx descent did not yet exist in large enough numbers to develop a critical mass for advocacy; and laws throughout the southern states prohibited educating Black slaves, who existed in large numbers. There were relatively few exceptions to this state of affairs. By the advent of the Reconstruction era in the late 1800s, Black children began to be offered formal opportunities for public schooling in increasingly greater numbers, but for the most part and

for many years, these opportunities existed in separate systems that operated at a severe disadvantage, with far fewer resources than other public schools. As educational opportunities for Black youth increased, serious debates took place among the community of Black leaders regarding what direction was best, as typified by the debates between Booker T. Washington (who advocated for a practical, industrial education for Black youth) and W. E. B. Du Bois (who advocated for an intellectually rigorous education for Black youth and derided practical education efforts as second class).

As the 20th century evolved, two forces began to merge that gradually began to chip away at these historical antecedents. First, U.S. society was becoming increasingly diverse and pluralistic as a result of patterns of immigration dating to the late 1800s. Second, legal advocacy and public discourse regarding the education of children from minority group backgrounds (mostly children of color) increased. The 1954 landmark ruling of the U.S. Supreme Court in *Brown v. Board of Education* was the culmination of many years of advocacy to change inequity. This ruling held that segregated educational environments were unacceptable for children and that the notion of “separate but equal” treatment in the United States (which became the law of the land in the court’s 1892 *Plessy v. Ferguson* decision) was a cruel myth. With the passing of the 65th anniversary of *Brown*, it is now apparent that, notwithstanding the substantial gains made following this and other court decisions, the full promise of equality has yet to be fulfilled. (We refer readers to [Chapter 4](#) of this book for a contemporary discussion of equity issues in education and school psychology, including the importance of centering values of cultural responsiveness and social justice within our field.)

Beginnings of School Psychology

Although Fagan's assertion that no significant aspect of school psychology existed before the 1890s (Fagan & Wise, 2007) is indeed accurate, it is important to understand that the seeds from which the field would spring were already planted by that time. In addition to the establishment of psychology as a unique discipline by the late 1800s, other forces paved the way for the emergence of school psychology. As we noted, the industrialization and urbanization of the United States, increased support for public education, the beginnings of the compulsory schooling movement, and post-Civil War social changes all contributed to a need for professionals to broadly focus on education, child development, mental health, and other aspects of support, training, and supervision for children in an increasingly complex society.

One of the seminal events during the beginnings of school psychology was the 1896 establishment of the first psychological clinic by Lightner Witmer at the University of Pennsylvania in Philadelphia. This clinic has also been referred to as the first *child guidance* clinic. Witmer's goal was to prepare psychologists to help educators solve children's learning problems (Bardon & Bennett, 1974). With this contribution, Witmer has been credited as the founder of both school psychology and clinical psychology. The Witmer clinic was clearly the first effort of its kind in North America. However, a somewhat similar laboratory clinic had been established by Sir Francis Galton at University College in London in 1884, predating Witmer's U.S. clinic by 12 years. Although the primary purpose of Galton's laboratory was the measurement of individual human differences rather than direct service, one of its first endeavors was to assist local schools in selecting and classifying pupils. Thus, some writers have argued that the birth of school psychology may be more appropriately credited to Galton's laboratory in England (White & Harris, 1961). We should also note that Galton pioneered

the eugenics movement, the dangerous set of beliefs and practices surrounding perceived genetic superiority of groups of people over others, which is now widely discredited as being sexist, racist, ableist, elitist, and xenophobic.

One of the events almost always mentioned in the same breath as the beginning of school psychology is the publication of the Binet–Simon scales in 1905. We previously addressed the impact of the IQ testing movement on U.S. education and school psychology, but it is worthwhile to consider the beginnings of this movement in more detail. Psychologist Alfred Binet and psychiatrist Théodore Simon were commissioned by the Minister of Public Education in Paris to develop a methodology for classifying and “sorting” children who were not successful in the general education settings and who presumably could not profit from the regular curriculum, for the purpose of providing them with specially designed training in other settings. Together, they developed the Binet–Simon scales, the first modern intelligence test, which was not only used in France but also later adapted by Lewis Terman of Stanford University, who was also a proponent of eugenics, into an English language version for use in the United States. Terman’s work was preceded by Henry Goddard, who translated Binet’s test and brought it to the United States and used it at Vineland Training School. While testing was controversial, it was viewed by many as an essential technology that was better than using teacher judgments for placements and planning.

Thus, the early history of school psychology became inextricably linked to intelligence testing and individual assessment and classification. It is worth noting that the area of gifted children (sometimes referred to as “supernormals”) was an important area for testing, as was the area of disability in the early years of the testing movement. These efforts proved to be instrumental in expanding the field of school psychology in later years and also served to entrench many school psychologists in a psychometrician-driven role of sorter or gatekeeper. Of course, part of the early entrenchment of school psychologists in the psychometrician gatekeeper role could also be attributed to the fact that the field of

psychology had not yet developed a technology for effective intervention selection and implementation. Furthermore, the onset of widespread intelligence testing also became linked to race-based discrimination and school segregation in the United States, which we cover in greater detail in [Chapter 4](#).

In the United States, the 1890s and early 1900s marked an increasing emphasis on providing educational and mental health services for youth whom we would today consider as being placed “at risk.” Many urban public school districts in the larger cities of the eastern United States had established special educational programs and classes by this time, aimed at assisting students with significant learning problems. In 1909, William Healy established a clinic in Chicago for a juvenile court in the public school system, perhaps the precursor to today’s special programs for students with emotional and behavioral disorders. The mental health field became formally established by 1910, with the founding of the “mental hygiene” movement (i.e., the prevention and intervention of mental health issues) that year. A primary focus of the incipient mental health field was the founding of child guidance clinics to help prevent and treat juvenile delinquency. Although these efforts were not necessarily specific to the field of school psychology, nor conducted by individuals who were known as school psychologists, they nevertheless were early manifestations of activity in the field.

By the 1920s, the terms *school psychology* and *school psychologist* had emerged, indicating that the field was becoming increasingly established, with the signs of a distinct profession. Arnold Gesell (1880–1961) became the first person to be appointed to the position of school psychologist, and he served in that role in Connecticut between 1915 and 1919. The term *school psychologist* had also appeared in the literature by this time. Thus, the field of school psychology, although barely in its infancy and without any formal structure or specific professional organization, had arrived.

Development and Professionalization of the Field

The late 1920s witnessed the first efforts to establish training programs and credentialing for school psychologists. During the 1930s, these efforts were expanded. The young field was beginning to grapple with increasing regulation and recognition, a sign that it had arrived. However, the practice of psychology in the schools was still largely unregulated, and individuals who fulfilled psychological service roles in schools had a wide range of professional training and went by a plethora of titles, such as psychological examiner, psychoclinician, and clinical or consulting psychologist. The first book on school psychology, *Psychological Service for School Problems*, authored by pioneering female school psychologist Gertrude Hildreth, was published in 1930. Interestingly, one of the features of this book was the illustration of a typical day for a school psychologist and of the division of different activities within a workday. Hildreth's view on school psychology service delivery was fairly broad. Although individual testing and diagnosis played a prominent role in her breakdown of a professional day, consultation with teachers, administrators, parents, and other individuals through conferences appeared to be the activity that consumed the most time.

During the 1940s and 1950s, the field of school psychology continued to expand. During this era, two important professional conferences with strong implications for the future of school psychology were held. First, the Boulder Conference on Clinical Psychology was held in 1949, shortly after the end of World War II. The Boulder Conference took place during the time when the practice of psychology was expanding greatly as a result of the development of the Veterans Administration hospitals and clinics to provide medical services to personnel who had served in the military during the war effort. The Boulder Conference resulted in the articulation of the scientist-practitioner model of psychology training and models for

credentialing of psychologists. The impact of the Boulder Conference was to further legitimize the applied professional practice of psychology (i.e., clinical, counseling, and school psychology), which had previously taken a back seat in status to the academic or scientific aspect of the field.

Second, the Thayer Conference of 1954 was held for the specific purpose of advancing and shaping training, credentialing, and practice in school psychology. The proceedings of the Thayer Conference provided the first comprehensive picture of the field of school psychology and its circumstances. During this era, a division of the APA emerged (Division 16) that was specifically focused on school psychology, and the first few state school psychology associations were started. However, there was not yet a strong link between national and state organizations. Part of the reason for the lack of a cohesive school psychology organizing body stemmed from the inconsistencies in procedures for credentialing of school psychologists across the various states. Many states still did not have any formal recognition or training standards for psychologists to practice in schools. In addition, the “doctoral versus nondoctoral” conflict (discussed in detail later) in psychology had begun to surface, and it clearly affected the status and organization of school psychologists. Unlike clinical psychologists, who were increasingly trained at the doctoral level and followed similar routes to credentialing and practice across states, school psychologists were primarily nondoctoral practitioners (i.e., master’s level), and there was little consistency from state to state with regard to credentialing.

During the 1950s and 1960s, a social or demographic development occurred that had a major impact on U.S. education and culture, and ultimately on the development of school psychology: the post–World War II “baby boom” (children born between 1946 and 1964). Because such a large percentage of young men in the United States were involved in military service, and because of the war effort in general (with a large percentage of young women working in civilian–military roles and war-related industries), marriages and birth rates declined substantially during this time. As the war ended, however, an enormous number of young men and women, whose

lives had been “on hold” during the war, resumed normal life. Most married, many pursued higher education with the assistance of the new GI Bill, and almost all members of this generation began to raise their own families. Thus, a period of extensive growth in the numbers of children and youth in the United States began. By the mid-1950s, this growth spilled into the public schools, which began to expand at an unprecedented rate, continuing into the 1970s. At the same time, federally funded efforts were made to improve mathematics and science education, which in part led to the expansion of school guidance services.

As the number of schoolchildren expanded greatly, so did the numbers of students who had disabilities or who otherwise struggled with respect to their academic and behavioral adjustment in the school setting. These rapidly expanding numbers of “exceptional” students spurred the growth of school psychology, as parents, teachers, and administrators looked for solutions to students’ learning and behavioral problems. Although no federal law for the education of students with disabilities was passed until 1975, many states and larger school districts expanded and refined their programs for meeting the needs of exceptional children, and school psychologists were usually a part of these efforts. The passage of new laws for the education of students with disabilities ultimately proved to be a watershed set of events for the field of school psychology.

The era of increasing emphasis on awareness and laws for the education of students with disabilities corresponded to a great extent with the emergence of a new era of growth in school psychology. According to school psychology historian Thomas Fagan, the field’s historical development can be divided into two distinct eras: the hybrid years of 1890–1969, when school psychology was emerging and beginning to develop an identity; and the thoroughbred years of 1970–2000 and beyond, when school psychology had clearly emerged as a unique field with a stable professional identity. Without question, the culminating symbol of the bridge between the two eras was the establishment of NASP, which held its first convention in St. Louis in 1969. The founding of NASP was significant not only because it

signaled that the field had achieved a strong professional identity and professional structure but also because it represented the beginnings of a shift in the voice of the field (Fagan & Wise, 2007). Division 16 of APA had previously served as the only national-level voice of the field of school psychology and was the first national organization within the field (Fagan, 2002). However, after NASP was established, its membership numbers quickly surpassed those of APA's Division 16, giving it increased credibility and visibility. Division 16, through its connection with APA and its advocacy of the doctoral degree as a requirement for independent practice, positioned itself as the voice of psychology within the greater body of American psychology. NASP, on the other hand, was a freestanding organization representing what was viewed as a unique field and as a mission to advocate for the interests of master's- and specialist-level school psychologists. These differences between APA and NASP had enormous implications for some of the later tensions and dynamics that would shape the field and that, in many respects, continue today.

Recent History of School Psychology

History is constantly being written and rewritten. The history of school psychology includes not only the foundations and early period but also recent events and issues. The beginning of Fagan's thoroughbred years in 1970 can be considered a starting point for a brief overview of some of the more recent history of the field, two aspects of which are discussed in this section: (1) the impact of the public law for education of students with disabilities and (2) the impact of the development of training and credentialing standards for school psychology programs and practitioners.

Public Law 94-142/Individuals with Disabilities Education Improvement Act 2004

Some of the most important recent historical developments in the field of school psychology have been attributable to the impact of new laws and court decisions. These legal issues and related ethical issues are covered in more detail in [Chapter 7](#), but they are briefly introduced here with an emphasis on how they have been critical in shaping the field. Specifically, the passage by the U.S. Congress of Public Law 94-142 in 1975, originally referred to as the Education for All Handicapped Children Act, and in 2004 renamed the Individuals with Disabilities Education Improvement Act (IDEIA), proved to be incredibly important in the development of school psychology. The impact of special education legislation cannot be overstated. For the first time, there was a unified federal law rather than a patchwork of state laws and policies mandating a free and appropriate public education (FAPE) for students with disabilities. Public Law 94-142 required all public schools to provide not only FAPE but also to ensure that students with disabilities be placed and educated in the least restrictive environment

(LRE) to the maximum extent possible, maximizing educational opportunities and interactions with peers without disabilities.

Three areas show the immediate and continuing impact of Public Law 94-142 on the recent history of the field of school psychology. First, because of the mandates for appropriate special education eligibility evaluations of students, greater numbers of school psychologists were needed. This need resulted in a significant expansion of school psychology training programs and in the numbers of practicing school psychologists from the 1970s through the 1990s. For example, it has been estimated that the number of training programs doubled from about 100 to more than 200 during this period and that the number of NASP members likewise more than doubled. Currently, there are over 250 school psychology programs as reflected on the NASP website (<http://apps.nasponline.org/standards-and-certification/graduate-education>). In short, the significant expansion of school psychology can be attributed in large measure to the impact of the 1975 federal special education law.

Second, the legal mandate for eligibility assessment not only expanded the field but also served to further entrench school psychologists in a gatekeeper or sorter role, a legacy that—while changing as more schools are adopting a problem-solving MTSS and response to intervention (RTI) model—has been highly resistant to change. Many of the generation of school psychologists who entered the field within the few years immediately after the enactment of Public Law 94-142 were trained with the expectation of functioning primarily as psychometricians, and these expectations were in many cases further shaped in this direction by the school administrators who hired them. The historical entrenchment in the gatekeeper/sorter role was (and continues to be in many schools) a source of frustration to many school psychologists who desired to engage in a broader range of services and to have a prevention- and intervention-focused role.

Third, some of the specific mandates of Public Law 94-142 and its successors (the Individuals with Disabilities Education Act [IDEA], 1990, 1997; and IDEIA, 2004) have shaped professional practice. Perhaps the

single most important example is the original definition of specific learning disabilities (SLDs) in the public law, which defined SLDs primarily on the basis of a significant discrepancy between a student's intellectual ability (i.e., an IQ standard score) and academic achievement (i.e., a standardized achievement test standard score). This definition not only further entrenched the field in the psychometrician gatekeeper model but also resulted in day-to-day practice constraints. Two generations of school psychologists learned to live with a standardized intelligence test kit in one hand and a standardized academic achievement test in the other, much to the chagrin of many who believe that this type of assessment activity is questionable in terms of the premises on which it is based and the results it produces—and that such testing does little or nothing to help children and, in fact, may lead to harm, if services provided following the evaluation do not effectively address a child's difficulties (Reschly, 2008).

The most recent (2004) reauthorization of the special education law (which allowed the use of RTI procedures as an alternative to the ability–achievement discrepancy model for SLD eligibility assessments) has reduced dependency on the ability–achievement assessment discrepancy paradigm and has generally been received in the field in a positive manner. In the second edition of this book, we noted that it was too early to tell whether this change would result in a significant broadening of roles for school psychologists. As of the writing of this edition of the book, it does appear that MTSS and RTI procedures are increasingly being adopted by schools and that the role of the school psychologist is expanding to incorporate some of the prevention/intervention work that is part of the MTSS model. As of 2012 (more recent data could not be located), 15 states mandated RTI (or other research-based procedures) for use in identifying SLDs, either partially or fully, with nine states requiring RTI (or other research-based procedures) completely and exclusively (Zirkel, 2012). This situation is ever evolving at the state level, and some states have more specific guidelines than others, but the overall trend is moving away from the discrepancy model.

Training Standards and Credentialing

[Chapter 5](#) covers training and credentialing of school psychologists in detail. As a precursor to that chapter, it is worth noting that the recent history of the field has seen some important developments in this arena. This section details some of the important historical developments related to training standards and credentialing of school psychologists and training programs.

APA Accreditation of Doctoral Programs

Although Division 16 of APA began to pursue efforts for the accreditation of doctoral programs in school psychology in the 1960s, it was not until 1971 that the first program was accredited (Fagan & Wells, 2000). Before then, no nationally accredited training programs in school psychology existed at any level. However, the National Council for the Accreditation of Teacher Education (NCATE) recognized programs in the late 1960s, at least by listing some—but they were not recognized against a set of criteria specifically for school psychology. In the decade following the first accreditation of a school psychology program, interest and activity in this area moved slowly, and most doctoral programs in the field either did not meet the minimum criteria for accreditation or were not interested in pursuing accreditation. By 1980, there were 20 accredited doctoral programs in school psychology. However, the perceived importance of APA accreditation gradually built steam. By 1990, 38 programs had received accreditation; by 2000, this number had increased to 52 and then to 60 by 2010 (plus eight that were accredited as combined programs with school psychology as one of their focus areas). As noted in [Chapter 5](#), currently there are close to 70 accredited doctoral programs in school psychology, plus another 12 combined programs with school psychology as a focus area.

NASP Approval of School Psychology Programs

With respect to master's and specialist programs (i.e., 60 semester-credit graduate programs in school psychology), Fagan and Wells (2000) noted that the use of standards specifically for school psychology training did not occur within the relationship of NASP and NCATE until the 1980s—the NASP folio review for program accreditation was implemented in 1988. By the end of that decade, NASP program approval could be gained by adherence to the training standards developed by NASP, either through an institution's NCATE review process for all education credentialing programs or separately through the NASP training program review board. We note that on July 1, 2013, NCATE merged with the Teacher Education Accreditation Council (TEAC), which was also a recognized accreditor of teacher-preparation programs, to form the Council for the Accreditation of Educator Preparation (CAEP). Like APA accreditation for doctoral programs, NASP approval (through CAEP or NASP accreditation for programs in non-CAEP units) for specialist programs increasingly became perceived as important. Currently, NASP allows for doctoral programs that are APA accredited to receive NASP approval through an abbreviated review process that involves submitting documentation from APA, as well as copies of program policies that show the program's internships requirements are consistent with NASP guidelines.

School Psychology Practitioner Credentialing

Credentialing of individual practitioners is another area in which recent history has witnessed significant developments that have affected both training and practice. Because individual states dictate their own standards and procedures for both psychological board licensing for independent practice and department of education certification/licensure to practice in the schools, there has been much variation among the states, which has sometimes created difficulties for practitioners who train in one state and then want to work in another. One important development in this area was NASP's establishment in 1988 of the Nationally Certified School

Psychologist (NCSP) credential. This system leads to the granting of the NCSP credential to those individuals who are ascertained to have completed minimum standards of training and competence. Obtaining this credential requires practitioners to have completed a NASP-approved training program or its equivalent (consisting of at least 60 semester credits of graduate-level coursework in an identified school psychology program, plus a 1,200 clock-hour internship under the supervision of a credentialed school psychologist) and passing a standardized national examination. Although the NCSP is a *certificate* and not a *license* to practice school psychology, the purpose in enacting this system was to promote the NASP training standard for quality assurance and to make it easier for holders of the NCSP credential to receive state department of education certification/licensure to practice as school psychologists as they move from one state to another. Prus and Strein (2011) observed that “implementation of the NCSP is one of the most significant events in school psychology over the past 3 decades and created an important link between training at the specialist level and credentialing standards” (p. 892).

Initially, the national certification program took off slowly, and few states signed agreements allowing certification or license reciprocity for holders of the NCSP credential. However, after more than three decades of existence, the NCSP has gradually increased in visibility and influence. As of 2020, the majority of U.S. states—33 of 50—recognized the NCSP credential as a complete or partial grounds for awarding their own state practice licenses or certificates. It is also worth noting that the number of practitioners holding the NCSP credential has continued to rise steadily, with almost 16,000 individuals holding the NCSP as of 2020 (NASP, 2020b). This figure represents a reasonably large percentage of all school psychologists. The trend seems to be moving toward all or most U.S. states accepting the NCSP as a basis for licensure or certification and for a significant percentage of school psychologists striving to hold this credential.

Growth through Tension and Opposition

Are stress, tension, and opposition natural prerequisites to growth and development? We think they are, both personally and professionally. If this notion is true, then the field of school psychology has had ample opportunities for growth! Perhaps more so than the other areas of professional psychology (clinical and counseling), school psychology has experienced not only the general tensions inherent in all of psychology but some unique turmoil as well. This section explores some of these particular tensions, including some ongoing “culture wars.”

Two Cultures of Psychology

In a 1984 study published in the journal *American Psychologist*, Gregory Kimble articulated a “scientist–humanist” dimension in belief systems and values among psychologists that has created an underlying tension in the field for many years. The scientist–humanist dimension was Kimble’s label for the dichotomy that he found through a survey of psychologists that utilized sophisticated sampling and survey techniques. The implication is that psychologists can be roughly divided into two distinct cultures: one representing the scientist end of the dimension, and the other representing the humanist end. Because school psychology is part of the larger field of psychology and is certainly included in this dichotomy, it is worth reviewing the six major areas in which this cultural division is said to be manifest.

Scientific versus Human Values

This conflict involves the tension between the principles of objective science and the values of some practitioners who might be consumers (not contributors) of the science. A good illustration in the field of school psychology involves the application of behavioral theory to promote the use

of positive reinforcement within a classroom to increase appropriate behavior and decrease inappropriate behavior. Although there is a virtual mountain of evidence that increasing reinforcement for appropriate behaviors of students will lead to positive results, doing so goes against the value systems of many teachers and some school psychology practitioners, who might be opposed to the notion of “bribing” or otherwise hold the belief that external reinforcement systems are mechanistic and inappropriate, an idea popularized by journalist Alfie Kohn (1993) in the influential book *Punished by Rewards*.

Determinism versus Indeterminism

This second area of conflict has been in existence for centuries or longer. It is reflected in the tension between the notion that behavioral or personal outcomes are the result of fixed laws or determinants (e.g., heredity) and the notion that outcomes are malleable and that individuals can alter their personal destinies (e.g., by the influence of life experience or the environment). A good example of the unfolding of this conflict in our field is the controversy that surrounded the publication of *The Bell Curve: Intelligence and Class Structure in American Life* by Herrnstein and Murray (1994), including what many believe is the authors’ tacit endorsement of racial prejudice. The pessimistic conclusion of these authors was that intelligence was, for the most part, hereditary or native and that educational achievement and related outcomes of individuals with low intellectual ability cannot be meaningfully affected through well-meaning intervention programs. Strong advocates of this view argue that early intervention programs, such as Head Start, are a poor use of resources. However, there is an impressive array of evidence to the contrary, as detailed in Hart and Risley’s (1995) *Meaningful Differences in the Everyday Experience of Young American Children*, which documents in detail that the intellectual skills of young children are significantly affected by their early environments and that early life experiences set the stage for later accomplishments.

Furthermore, a more recent publication in the *American Psychologist* reviews new findings and current theoretical developments in the field of intelligence that refute the implications espoused by Herrnstein and Murray (see Nisbett et al., 2012).

Objectivism versus Intuitionism

Those who value objectivism may use the axiom “in evidence we trust,” whereas those who value intuitionism may reject data-driven approaches and instead make evaluations based on subjective feelings. A good example of this conflict within school psychology involves the selection and use of projective assessment techniques for evaluating children’s social–emotional status. Although objective data in this area overwhelmingly raise caution regarding the questionable technical properties of many tools, such as the house–tree–person drawing and sentence completion tests, many practitioners continue to have a strong allegiance to such methods and view their intuitive value as compensating for their technical flaws—no matter how damning those flaws may be (Whitcomb, 2018).

Laboratory versus Field

This dimension of conflict is between results and methods refined in laboratory settings and those applied in naturalistic field settings. Because school psychology, as opposed to some other branches of psychology, is an extraordinarily applied field, this conflict does not rear its head to a significant extent in our world. However, instances do exist. When functional behavioral assessments (FBAs) became a mandated assessment practice through the 1997 reauthorization of the IDEA, many practitioners were frustrated with and perhaps resented the necessity of implementing in school settings a technology that had been developed primarily in laboratory or clinic settings with individuals who had low-incidence disabilities (e.g., autism). Conversely, a number of FBA adherents who had honed their research in laboratory settings were not happy that FBA had

been mandated in school settings prior to it being sufficiently refined and evaluated for valid and reliable application in those settings. However, the use of FBA technology in conjunction with positive behavioral support planning is an effective practice used by school psychologists today (see [Chapter 8](#)).

Nomothetic versus Idiographic

These two terms—*nomothetic* and *idiographic*—were first proposed in 1894 by Wilhelm Windelband, a German philosopher of science, as the two primary and somewhat opposing methods of scientific inquiry. Nomothetic inquiry involves procedures and methods designed to cover *general laws* and is concerned with *similarities among phenomena*, such as population averages, aggregate statistical methods, and psychometrics. Idiographic inquiry involves attempts to understand a particular event or individual or the *uniqueness of a phenomenon*. Idiographic inquiry would support the use of qualitative analysis and single-case research designs. The reality in school psychology is that both methods of inquiry—nomothetic *and* idiographic—are used by most practitioners and researchers, and for most it does not pose a significant conflict. For example, a school psychologist might assess a student’s reading ability using curriculum-based assessment methods (an idiographic approach) but place the results in context for intervention planning by comparing the results with averages from the classroom or grade-level benchmarks (a nomothetic approach).

Elementism versus Holism

Elementism is reflected in the notion of looking at very small parts or elements of human behavior in isolation, whereas holism involves looking at the “whole” person and not considering any particular aspect of the person’s characteristics or behavior in isolation. Like the conflict between laboratory and field, this particular conflict has not been as much of a controversy in school psychology as it has been in some other branches of psychology.

However, there are clear precedents for this conflict in our field. A good example is the use of individual subtest or item-level analysis of assessment data versus relying on total scores. Some practitioners may find a great deal of intuitive value in the former, whereas psychometric fundamentalists will likely decry such practices as being fraught with unreliability.

In sum, school psychology in particular is not immune to the tensions that have existed within the field of psychology in general. The two cultures of psychology identified by Kimble (1984) still appear to be distinctive enough to warrant this discussion, and they appear to have some very specific manifestations within school psychology. Again, it is important to recognize that the stress produced by this tension is not necessarily a bad thing for school psychology. Not only can such tension help the field to grow but it can also work like a system of checks and balances: advocates at one end of the spectrum help to curb the possible excesses of advocates at the opposite end of the spectrum.

NASP and APA

No discussion of tensions within the field of school psychology could be complete without examining the historic and ongoing tension between NASP and APA, which has waxed and waned over the years but has never fully gone away. This discussion is provided not to inflame any wounds or to promote a particular point of view. Rather, it is considered to be an essential part of the recent history and ongoing development of the dynamic field of school psychology.

Although there are several historical issues that characterize the conflict, in many ways the tension that has existed between NASP and APA comes down to one overriding issue: disagreement and debate regarding the doctoral versus specialist level of training, both for use of the term *school psychologist* and for independent practice outside of school settings. NASP was founded in 1969 for the purpose of providing an organized voice to

practicing school psychologists, the vast majority of whom did not have doctoral degrees in psychology. Although the percentage of school psychologists who have earned the doctoral degree has increased slightly over the years, it is still true that the vast majority of school psychologists (about 75%) do not have doctoral degrees. APA is the oldest and largest organization of psychologists, and it has attempted to be the advocate and voice of the broad field of psychology in America. NASP, on the other hand, was specifically founded to represent the interests of practicing school psychologists. Because the founding of NASP was brought about in great part by perceptions among many school psychologists that APA was either an ineffective voice for them or was actively ignoring or excluding them, it did not take long for tensions to arise.

The position of APA in the mid- to late 20th century was always either implicit or explicit in contending that the doctoral degree should be the minimum level for the use of the title “psychologist” or “professional psychologist.” Within only 6 years following the founding of NASP, this position was formally codified by APA’s 1977 stance that the doctoral degree in psychology is the minimum level of training needed for engagement in independent practice, state board licensing, and use of the title “psychologist.” However, the APA position statement, APA’s Model Act for State Licensure of Psychologists (i.e., the Model Licensure Act [MLA]), and the language of most state psychology licensing boards (which are usually informed greatly by the MLA) included a provision for individuals who were trained at the master’s or specialist level and were appropriately credentialed by their state department of education to use the title “school psychologist” within the scope of their school-based practice. In other words, the stance of APA and general professional psychology is that one must be a doctoral-level psychologist to receive a board license and to practice independently and call oneself a psychologist, but one could use the title “school psychologist” with less than doctoral-level training, providing the work was specifically limited to school settings and conducted under the authority of a state department of education certificate. This statement

represents the current APA position, although as discussed in greater detail later, there were recent discussions of the MLA within APA that almost led to the removal of this exemption.

APA's position on independent practice restrictions has never been accepted by NASP, and it has always been a point of some tension between the two organizations. In fact, NASP has supported the efforts of its state affiliates to promote legislation allowing specialist-level school psychologists to become licensed for independent practice, whereas APA and its state affiliates have continued to actively oppose such efforts. Although it has waxed and waned over the years, this conflict has always been present and is enormously complex, especially given that many school psychologists are members of both APA and NASP, and therefore support both organizations. This conflict has been complicated by several developments and issues over the years. Fagan and Wells (2000) noted that the U.S. Department of Education resurrected the jurisdictional conflict between APA and NASP by questioning the designation of two separate accrediting bodies for the same profession. In response, APA and NASP established a joint task force in 1978 (the Inter-Organization Committee [IOC]) to work cooperatively to resolve the conflict. This body established a collaborative pilot effort in 1983 for joint APA and NASP/NCATE accreditation of doctoral programs. However, whereas APA supported this effort, NCATE did not, and joint site visits were discontinued.

Even with these tensions, doctoral programs accredited by APA are able to qualify for NASP program approval without a full review, as discussed earlier in this chapter. One of the interesting questions of the doctoral versus nondoctoral conflict is whether there is any evidence that supports one position over the other. In general, there has not been any such evidence, although a review by Reschly and Wilson (1997) opined that the specialist level of training was not sufficient for the independent practice of school psychology in non-school settings. In an interesting development, in 2018, APA appointed a task force to study developing a "blueprint" for APA to accredit master's programs in psychology. The task force delivered its report

to APA in early 2019. In recommending that APA's Commission on Accreditation (CoA) also oversee accrediting master's programs, the task force report also recommended that CoA "explore pathways to recognize programs already accredited/approved by MPCAC [Masters in Psychology and Counseling Accreditation Council] or NASP" (APA, 2019, p. 12). As APA moves forward with plans to accredit master's programs, it will be interesting to see how APA and NASP interface and, hopefully, work together.

It is probably simplistic to view the historical and continuing rift between APA and NASP as being exclusively the result of the entry-level training disagreement. Rather, the tension seems to include differences in the broader culture and worldviews of the two organizations. According to Short (2002), there are distinct cultural differences in how the two organizations perceive school psychology within the broader context of professional psychology, with APA representing a culture of school psychology as part of professional psychology and NASP representing a culture of school psychology as a separate profession. Thus, "APA views school psychology as a specialty within American psychology, sharing significant commonalities with other specialties in terms of skills, knowledge, and competencies," whereas NASP asserts "that school psychology is a separate profession from professional psychology" (Short, 2002, p. 111). To an outsider or someone newly initiated to the field, these differences may seem trite, even pointless, yet they persist and continue to have ramifications for the development of the field—siphoning off tremendous energy that might otherwise be used to move the practice and science of school psychology forward. In 2002, APA's board of directors voted to withdraw their participation from the APA–NASP IOC, based on the conclusion "that the IOC had failed in its mission to gain consensus on important issues" (Clark, 2002, p. 40). It is evident that history is continuing to be written in this arena and that the APA–NASP tension has not yet subsided.

Despite the interorganizational tensions between APA and NASP, there has been some encouraging signs, sort of a “silver lining” in the dark clouds, if you will. From 2007 through early 2010, it was very clear that the process of revising the APA’s MLA was going in the direction of taking the unprecedented step of advising state psychology licensing boards to work toward not allowing the use of the title “school psychologist” by individuals who were not board-licensed, doctoral-level psychologists trained in school psychology, even if they were working in school settings and credentialed by that state’s department of education. Not surprisingly, this issue inflamed tensions between APA and NASP to a level that many observers (us included) considered to be unprecedented. NASP actively opposed the effort and urged its members to do the same. Early in the process, it was unclear whether or not APA’s Division 16 leadership would ultimately take a stand for or against the proposed MLA language, which further escalated tensions as the issue was studied and its membership provided input. Ultimately, the Division 16 leadership took a strong stand in alignment with NASP, arguing for retaining the exemption for the title “school psychologist” in the MLA (although not advocating for independent practice recognition for nondoctoral practitioners). Through the hard work and advocacy of some very influential Division 16 leaders during 2009 and early 2010, the APA Council of Representatives was convinced to abandon the course that had been charted, and the exemption for continuing use of the term *school psychologist* was retained in the MLA. Although many school psychologists were only vaguely aware of the behind-the-scenes activity, the eventual result was an extraordinary achievement, an impressive sign of collaboration between NASP and APA’s Division 16. It remains unclear whether this achievement represents a denouement to the historical drama or is merely an interlude. Given APA’s position on working with NASP as it goes down the path of accrediting master’s programs, we are hopeful that the relationship between NASP and APA continues to improve over time.

Leaving Adolescence: Toward the Maturation of the Field

Some of the most important dates and landmark events in the history of school psychology that have been described in this chapter are detailed in [Table 2.1](#). It is clear that school psychology is a relatively young field. It has a brief but rich history that is inseparable from the fields of both psychology and U.S. education. If we accept that school psychology is a young field, just how young is it in developmental terms? School psychology is clearly out of the infancy state, having emerged as a distinctive profession with strong voices, major influences, and extensive numbers of professionals. One can also easily make the case that the field has left its childhood, given that we have moved from Fagan's hybrid years to the thoroughbred years. If identity confusion and turmoil are essential components of adolescence, as some influential developmental psychologists have proposed, then it would be hard to argue that school psychology has totally left adolescence. Rather, like a number of 20- or 30-something emerging adults who continue to live in their parents' basements, not quite ready or financially able to take on the full responsibilities of adult life, our field appears to be in a delayed or extended period of adolescence. Adulthood and full maturity appear to be just around the corner and even in sight, but the field still seems hesitant or unsure regarding making the next steps to get there.

TABLE 2.1. Some Important Dates and Landmark Events in the History of School Psychology

1892	American Psychological Association is founded.
1896	Lightner Witmer establishes first psychological/child guidance clinic at University of Pennsylvania.

- 1899 First school-based psychological clinic is established in Chicago public schools.
- 1905 Binet–Simon intelligence scales are published in Paris, France.
- 1915 Arnold Gesell of Connecticut becomes first person hired as “school psychologist.”
- 1916 American/English language revision of Binet–Simon scales is published by Lewis Terman at Stanford University (“Stanford–Binet”).
- 1928 First school psychology training program is established at New York University.
- 1930 First book on school psychology, *Psychological Service for School Problems*, is published by Gertrude Hildreth of Columbia University.
- 1943 Ohio School Psychologists Association is founded, becomes first state school psychology organization.
- 1945 APA is reorganized into divisions, and first national organization for school psychology (APA Division 16) is established.
- 1954 Thayer conference, first national school psychology conference, is held in West Point, New York.
- 1962 *Journal of School Psychology* is founded, becomes first school psychology journal.
- 1969 National Association of School Psychologists is founded at organizational meeting in St. Louis, Missouri.
- 1971 PhD program in school psychology at University of Texas at Austin becomes first APA-accredited doctoral program in school psychology.
- 1975 Public Law 94-142, Education of All Handicapped Children Act, is enacted by U.S. Congress and takes effect in 1977.
- 1977 APA council resolution declares that doctoral degree is required for

use of “professional psychologist” title and increases tension with NASP.

- 1978 Joint APA–NASP Inter-Organizational Committee is established to work out differences between two organizations.
 - 1988 NASP begins training program approval process with folio review system and approves first training programs.
 - 1988 NASP institutes National School Psychology Certification Board and administers first national certification exam; first NCSP certificates are granted in 1989.
 - 1997 APA grants specialty recognition to school psychology.
 - 2002 Future of School Psychology Invitational Conference is held in Indianapolis, Indiana.
 - 2002 APA board of directors votes to withdraw from joint APA–NASP Inter-Organizational Committee.
 - 2004 Individuals with Disabilities Education Improvement Act reauthorization removes requirement for IQ–achievement discrepancy and allows for use of RTI procedures in LD classifications.
 - 2010 APA Council of Representatives voted to retain the exemption for the title “school psychologist” in the MLA.
 - 2019 APA Commission on Accreditation (CoA) forms a Master’s Work Group tasked with developing Standards of Accreditation for Health Service Psychology: Master’s Programs (SoA-M).
 - 2021 SoA-M was finalized and approved by the CoA as policy, and implementing regulations for these standards are now being developed and reviewed.
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The Spanish philosopher and poet George Santayana is credited with making the statement “Those who cannot remember the past are condemned to repeat it.” Our foray into school psychology’s brief history in this chapter might well be concluded by considering the accomplishments and disappointments of the field to date and pondering when it will take leave of the basement of postadolescence and move into maturity. We believe that a “paradigm shift” is taking place in the field (Reschly, 2008; Reschly & Ysseldyke, 2002; Ysseldyke & Reschly, 2014) and that the past is not necessarily the future. However, the past is important, even critical, to our current understanding of the field. We provided a background in this chapter that we hope the reader will not forget within the context of the road map that subsequent chapters present regarding moving the field forward.

Discussion Questions and Activities

1. Go to the Today in the History of Psychology website at <http://todayinpsychologyhistory.pbworks.com> and use the "Search by Month" tool to locate important historical events in the chronology of psychology that occurred on your birthday (day and month). Are any of the events you identified specifically relevant to the history of school psychology?
2. Select an individual who played a prominent role in the history of school psychology and write or present a brief overview of his or her life and accomplishments. We particularly encourage you to consider researching someone who is a lesser known or overlooked "pioneer" from the field.
3. For those who have recently entered a graduate program in school psychology, what were the features of this field that attracted your interest? Why did you choose to train for a career in school psychology rather than other professional fields of psychology (clinical or counseling psychology) or related educational or mental health fields (such as school counseling, social work, or teaching)?
4. The history of school psychology has clearly been tied to the role of gatekeeper or sorter and to the work of psychoeducational assessment. What are your views regarding the opportunities, risks, and barriers to moving school psychologists into broader roles that substantially reduce the amount of time spent conducting individual psychoeducational assessments?
5. The ongoing conflict between the sometimes opposing views and values represented by APA and NASP has clearly taken up a tremendous amount of time, talent, and energy that might have otherwise been used to move the field forward in other ways. How do you view this cultural tension, and what do you think it will take for the field to settle these concerns and rise above them?

Chapter 3



Facilitating Change through Multi-Tiered Systems of Support and Data-Driven Problem Solving

In the first edition of this book, we began this chapter by acknowledging that, historically, school psychology practice has been dominated by traditional refer–test–place models, wherein the school psychologist’s role is largely that of “diagnostician” (Lentz & Shapiro, 1985) or “sorter” (Fagan, 1995). We then argued that a more promising future for school psychology is grounded in the data-driven problem-solving role posited by Susan Gray in 1963 and currently advocated as “best practice” by many leading scholars in the field (e.g., Chafouleas, Volpe, Gresham, & Cook, 2010; Deno, 2002; Gimpel Peacock, Ervin, Daly, & Merrell, 2010; Pluymert, 2014; Reschly, 2008; Reschly & Ysseldyke, 2002; Sanetti & Collier-Meek, 2019; Shapiro, 2000; Tilly, 2002, 2008; Ysseldyke & Reschly, 2014), as well as by NASP (2020b). Now, in 2021, the future feels less like a wishful description of “what should be” and more of a description of “what is really happening” — *right now*.

Fueled by the momentum of the evidence-based practice (EBP), response to intervention (RTI), and multi-tiered systems of support (MTSS) movements, we see increased attention to and use of approaches consistent

with the data-driven problem-solving approach advocated for in the original version of this book. This is not to say, however, that the field has arrived as a coherent or consistent profession that fully espouses this approach. Instead, we argue that, unlike our predecessors who pioneered alternative models of school psychology as a problem-solving endeavor (Baer & Bushell, 1981; Gray, 1963; Lentz & Shapiro, 1985), and who lamented for decades about the disconnects between *actual* practice and *best-practice* service delivery models (Deno, 2002; Reschly & Ysseldyke, 2002; Shapiro, 2000; Ysseldyke, 2000), we are seeing positive and widespread change in our profession (Harrison & Thomas, 2014; NASP, 2020b; Ysseldyke & Reschly, 2014). Thus, within this important chapter devoted to a data-driven problem-solving approach, we feel less inclined to devote a great deal of space to issues of past arguments regarding the merits of this approach over more traditional approaches to school psychology. Instead of reigniting or rehashing old battles between traditional and alternative approaches to school psychology, we focus our attention on discussing what we see happening now, with an emphasis on how to continue to implement a problem-solving approach within the context of the EBP, RTI, and MTSS movements (e.g., Jimerson, Burns, & VanDerHeyden, 2016; McIntosh & Goodman, 2016; Pullen & Kennedy, 2018; Sanetti & Collier-Meek, 2019; Weisz & Kazdin, 2017).

This chapter begins with a brief overview of the historical roots of school psychology as a problem-solving endeavor, contrasting the problem-solving approach with more traditional diagnostic approaches to school psychology and acknowledging the contributions of our predecessors, to whom we are grateful for their efforts to bring forth the problem-solving approach to school psychology. Next, we describe how a data-based problem-solving approach is integrally linked with the current EBP, RTI, and MTSS movements, with a specific focus on the preventive mindset or orientation to service delivery. Finally, we describe the problem-solving approach by detailing its processes and the structures necessary to support its sustained use. In later chapters, we expand on the areas of assessment ([Chapter 8](#)),

intervention ([Chapters 9 and 10](#)), systems change ([Chapter 11](#)), and research ([Chapter 12](#)) within the context of a problem-solving model.

Traditional and Alternative Approaches to School Psychology Practice

Historically, arguments in favor of the adoption of a data-driven problem-solving approach to school psychology were proposed in light of (1) growing concerns with inadequacies noted in traditional models that dominated school psychology practice; (2) recognition of the critical need for reforms in our practice to address the increasing numbers, complexity, and severity of educational and mental health problems facing our youth; and (3) increasing evidence of the utility of alternative approaches in improving educational outcomes for students. The field of school psychology has historically faced many challenges, one of which has been a general lack of clarity of purpose in our practice roles (Deno, 2002; Reschly, 2008). For example, incongruity has existed not only between actual and preferred roles but also often between current and recommended best practices among leading scholars and professional organizations.

We believe that many of the struggles school psychologists have faced in moving forward and expanding our practice roles from “what is” to “what should be” are a result of the difficulties and challenges involved in stepping away from traditional roles that have become institutionalized. In essence, the activities that traditionally or historically dominated our practice roles (i.e., diagnostic and refer–test–place tasks) eventually became our *expected* roles. Others having contact with school systems (e.g., teachers, administrators, parents) came to know the school psychologist as one whose primary and most visible function was the psychoeducational assessment and classification/diagnosis of children to determine their eligibility for special education and related services (Fagan, 1995; Lentz & Shapiro, 1985). Despite the fact that alternative models of school psychology as a problem-solving endeavor have existed for decades (e.g., Baer & Bushell, 1981; Gray, 1963; Lentz & Shapiro, 1985), the more traditional roles became

institutionalized to the extent that others viewed school psychologists narrowly as “testers” or “diagnosticians” or “special education gatekeepers.”

Over the years, though, leaders in the field have continued to challenge school psychologists to critically evaluate current approaches to practice and consider progressive alternatives (e.g., Chafouleas et al., 2010; Deno, 2002; Gimpel Peacock et al., 2010; Reschly, 2008; Reschly & Ysseldyke, 2002; Shapiro, 2000; Tilly, 2002, 2008; Ysseldyke & Reschly, 2014). In general, we agree with those who argued for a fundamental shift away from our traditional practice roles, and we believe that—finally, after decades of arguing for such shifts—positive and widespread change is now afoot. For those new to the field, we believe it is important to have some historical awareness of this topic, which we turn to next.

In [Chapter 2](#), we summarize six major historical dichotomies in psychology that have manifested as tension and conflict within our field of school psychology. We now add another, more specific dichotomy to this discussion, as we contrast our vision of school psychology as a data-driven problem-solving endeavor with the more traditional or refer–test–place model of school psychology practice. As aptly noted by Reschly (2008), Reschly and Ysseldyke (2002), and Ysseldyke and Reschly (2014), this dichotomy has its historical and philosophical roots in the two approaches that have dominated the broader field of scientific psychology: *correlational* versus *experimental* psychology. In this section, we describe this dichotomy, place it in historical context, and illustrate how it has manifested in our notions of traditional and alternative approaches to school psychology practice.

To begin, in a 1957 *American Psychologist* article, Cronbach commented that experimental psychology and correlational psychology were two distinct disciplines that characterized the field of scientific psychology. According to Cronbach, the task of a *science* is to “ask questions of nature,” and “a *discipline* is a method of asking questions and of testing answers to determine whether they are sound” (p. 671). He noted that psychologists working within the correlational discipline were “interested in the already

existing variations between individuals, social groups, and species” (p. 671). They measured how these variations related to (correlated with) performance in other domains. With regard to intervention, for example, the correlational psychologist is concerned with predicting performance in treatment conditions based on naturally occurring variations across individuals. One early application of this approach that is relevant to school psychology was the development of the Binet–Simon scales to identify children who were not likely to benefit from the general education curriculum. Performance on these tests was said to positively correlate with school success. Children whose test scores indicated they were not likely to perform well in school settings were placed in alternative settings. Thus, within the correlational discipline of psychology, assessments were employed to determine placement based on individual differences. This correlational approach to psychology is the foundation of what we described as the traditional or diagnostic model of assessment, which has been the basis for determining special education eligibility and placement.

In contrast, Cronbach (1957) noted that psychologists working within the experimental discipline were interested in controlling situational variables to permit “rigorous tests of hypotheses and confident statements about causation” (p. 672). Within the realm of intervention, the experimental psychologist is concerned with how different treatments resulted in the greatest average effects for individuals (single-subject designs) or groups of individuals (group-comparison designs). The experimental approach emphasizes controlling for situational variations across treatment conditions in order to make valid inferences about the nature of treatment effects. An example of this approach in school psychology is the study of instructional strategies for teaching reading. Within the experimental approach, students with deficits in reading skills would be exposed to different reading interventions to determine which treatment resulted in the highest average improvement in reading performance on a given outcome measure. Thus, whereas experimental psychologists focus on manipulating variables to understand how changing

conditions cause differential outcomes, correlational psychologists focus on “what [we have] not learned to control or can never hope to control” by examining the relationships among variables in their original or unperturbed states (p. 672).

After contrasting the experimental and correlational approaches, Cronbach (1957) offered a merger of these two opposing disciplines by proposing the aptitude-by-treatment interaction (ATI) method. He argued that psychologists should consider how aptitudes (i.e., naturally occurring or existing variations between individuals, social groups, and species) might interact with certain aspects of treatment (i.e., manipulations of variables intended to produce particular outcomes) to moderate the effects. In the ATI approach, what is meant by *aptitude* is “any characteristic of the person that affects his response to treatment” (Cronbach, 1975, p. 116). Some major assumptions behind ATI were: “A person learns more easily from one method than another, and this best method differs from person to person, and that such between-treatments differences are correlated with tests of ability and personality” (Cronbach, 1957, p. 681). In sum, the big idea underlying the ATI method was that we should design treatments to fit individuals or groups of individuals with certain aptitudes or aptitude patterns, so that treatments could, ultimately, be more effective.

This ATI idea had intuitive appeal and was the focus of much attention in research and practice in psychology for decades following Cronbach’s (1957) proposal. Tests were developed to assess and classify students according to their preferred learning modalities or underlying processes (e.g., perceptual–motor, visual, auditory). In the field of special education, and learning disabilities (LD) in particular, many researchers set out to design instruction in accord with assessed patterns of modality strengths and weaknesses (e.g., Kirk, McCarthy, & Kirk, 1968). Despite the fact that research on the ATI model was in its infancy and evidence confirming its utility was still pending, this approach enjoyed enormous attention from scholars who advocated its use (e.g., deHirsch, Jansky, & Langford, 1966; Johnson & Myklebust, 1967).

The school psychologists' role in this process was the careful assessment of processing and modality issues. With its intuitive appeal and widespread dissemination from educational leaders (e.g., Barbe & Milone, 1980; Dunn, 1979), this approach also pervaded special education practice. In one survey, for example, the overwhelming majority (i.e., 99%) of special education teachers reported that they believed a child's modality strengths and weaknesses should be a major instructional planning consideration (Arter & Jenkins, 1977). Although it is not surprising that this occurred, because we know that educational practice is not always driven by research (Carnine, 1997), the widespread adoption of ATI eventually became problematic in light of mounting empirical evidence that failed to support the efficacy of this model.

During the decades following Cronbach's (1957) proposal of ATI, empirical investigations on the efficacy of this approach abounded. Contrary to the conventional wisdom that endorsed ATI, research syntheses did not substantiate its efficacy (e.g., Arter & Jenkins, 1979; Cronbach & Snow, 1977; Kampwirth & Bates, 1980; Kavale & Forness, 1987; Tarver & Dawson, 1978). In 1975, Cronbach reconsidered ATI in another *American Psychologist* article. This time, he addressed ATI in light of its empirical evidence, commenting that as "important as ATIs are proving to be, the line of investigation I advocated in 1957 no longer seem sufficient" (Cronbach, 1975, p. 116). Cronbach was concerned with the inconsistency of findings across relatively similar studies (e.g., studies investigating the same treatment variables but finding different outcome-on-aptitude slopes) because only a fraction of these inconsistencies were due to statistical sampling error. He argued that these inconsistencies were evidence of unidentified, complex interactions with other variables, such as sex, ability, skill level, and prior knowledge in the domain of interest. In proposing the ATI model, Cronbach overlooked the possibility that the interactions he was interested in studying (i.e., ATI) might be moderated by other factors he had not considered. His original hypotheses were (1) when ATIs are present, generalizations about treatment effects are problematic because the effect

will come and go (interact) across the kinds of individuals who are treated and (2) when ATIs are present, general predictions about treatment effects from aptitudes is uncertain because effects will vary depending on the selected treatment. After studying ATI over the long run, Cronbach realized the importance of other unforeseen interactions, noting that “interactions are not confined to the first order; the dimensions of the situation and of the person enter into complex interactions” (Cronbach, 1975, p. 116). He emphasized that “once we attend to interactions, we enter a hall of mirrors that extends to infinity” (p. 119), and “when we give proper weight to local conditions, any generalization is a working hypothesis, not a conclusion” (p. 125).

In light of the evidence derived from ATI research, Cronbach (1975) argued the need for applied psychology to embrace short-run empiricism and evaluation of interventions within local contexts. According to Cronbach, “Short-run empiricism is ‘response sensitive’ ... one monitors responses to the treatment and adjusts it, instead of prescribing a fixed treatment on the basis of a generalization from prior experience with other persons or in other locales” (p. 126). Later, within the context of school psychology, Reschly (2008), Reschly and Ysseldyke (2002), and Ysseldyke and Reschly (2014) drew parallels between Cronbach’s suggested *short-run empiricism* and what we have come to call the *problem-solving approach* to service delivery. They commented that the majority of school psychology practice (past and current) has been more consistent with the correlational and ATI approaches and urged the field to consider the lack of evidence for traditional models—proposing, instead, the adoption of a problem-solving model of school psychology. Following their prescient lead, we also encourage school psychologists and school psychologists in training to consider the adoption of a data-driven problem-solving approach to guide our profession. And we are not alone in this call, as NASP’s (2020b) current standards for the practice of school psychology likewise emphasize the importance of using a problem-solving approach to drive service delivery. Considering the history reviewed above, we ask school psychologists to take

up the problem-solving model not just because it is currently popular or fashionable but rather because it is the most reasonable, reliable, and scientific approach for guiding practice. In the next section, we further flesh out the rationale for adopting this approach.

Rationale for Adopting a Problem-Solving Approach

As we noted in the preceding section, the philosophical assumptions driving traditional practice have not been substantiated empirically. Despite this fact, these approaches monopolized school psychologists' professional practice for decades and, in some places, still do. The elephant in the room, then, seems to be this question: Why would school psychologists and other educational professionals (e.g., general and special educators, school administrators) continue to engage in practices that have been deemed questionable? One plausible explanation can be found in commentaries positing that education generally (Carnine, 1999), and school psychology specifically (Tilly, 2002, 2008; Ysseldyke & Reschly, 2014), are relatively immature or evolving professions that are characterized by subjective judgments of experts and their cultivation of interpersonal trust in their judgments, as opposed to fully embracing the scientific method to determine the efficacy of their respective practices. For example, Tilly (2002, 2008) argued that school psychology is currently evolving, as do all sciences, from a philosophically based system to a scientifically based system. More recently, Ysseldyke and Reschly (2014) affirmed the field's evolution—describing it as a “paradigm shift” that is moving toward increasing reliance on better concepts and better science that are more germane to informing practice.

According to Tilly (2002), in a philosophically based system, reasoning occurs “from premise to conclusions: If this is true, then that would be true” (p. 21). Within school psychology, for example, this logic is seen in traditional diagnostic work. The premise that assessment based on form and structure of symptoms leads to diagnosis, and that, in turn, *diagnosis informs treatment*, is presumed to be “true.” Thus, the focus of practice becomes systematic assessment (e.g., diagnostic testing) to determine the presence of

a disability (or diagnosis), and the practice of diagnostic assessment is deemed an important endeavor because it presumably leads to a diagnosis that will inform treatment. Within this model, which is predicated on the medical model of psychoeducational service delivery (Gutkin, 2012), problems are conceptualized as residing primarily within patients (students), and the role of the therapist (school psychologist) is to treat the illness (disability) and to maximize adjustment (learning; Tilly, 2008). Within school psychology, the philosophically based approach has led our profession to address problems in a reactive fashion (after the problem is apparent) and on a child-by-child basis, as opposed to taking a proactive and systemic approach (Gutkin, 2012; Tilly, 2008).

As professions mature, however, Tilly (2002) argues that they reach “a point in their development where philosophical reasoning, assumptions, and practice no longer sufficiently addressed problems at hand” (p. 21). When faced with sufficient practice “failures,” practitioners begin to question the premises and conclusions of their current practices. At this point, reasoning begins to shift and becomes more scientifically based, grounded in observation and hypothesis testing. Tilly states that, historically, school psychologists and other educational professionals have amassed a significant enough number of “failures” resulting from current assumptions and practices to warrant movement from a philosophically based system to a scientifically based system. Furthermore, Reschly (2008), Tilly (2008), and Yseeldyke and Reschly (2014) argue that legal mandates for accountability in schools are helping school psychology evolve toward a science-based profession.

Reschly (2008), as well as Yseeldyke and Reschly (2014), posit that a problem-solving approach to school psychology entails a self-correcting process, which emerges from the evaluation and progress monitoring that informs decision making surrounding the implementation of prevention and intervention strategies. We suggest that this self-correcting process is the essence of Cronbach’s (1975) notion of “short-run empiricism.” Individuals who are currently practicing, in training for, or even considering

a career in school psychology are likely to encounter differing opinions and controversies regarding traditional and alternative professional practice roles. We are hopeful that, as they are faced with choices regarding how they approach their professional practice, they do so in a conscious and informed manner—choosing short-run empiricism and scientifically based reasoning to guide decision making.

As our field continues to mature and shift toward being guided by scientifically based reasoning, it is important to note that our work is also affected by the problems we choose to address. Indeed, there is currently much healthy debate in the field regarding how broad or narrow school psychologists' professional roles should be, as well as what changes might be best for the field in the future. For example, should school psychologists increase their focus on students' behavioral and mental health? Or should we focus more on becoming academic and instructional experts whose primary goal is to support teachers and families in improving youths' educational outcomes? Should school psychologists place an equal and balanced emphasis on both reducing problems and increasing well-being? Or should we home in on solving the largest possible educational problems, such as disproportionalities in special education and achievement disparities that are a function of socioeconomic factors and institutionalized racism? (See VanDerHeyden et al., 2019, for discussion of these issues and other constructive controversies in the field.)

We do not yet have definitive answers to these big questions regarding our professional roles. Although we tend to think that the best answer is probably “all of the above,” we also realize that school psychology must have clear professional boundaries and, more pragmatically, that individual school psychologists will have clear limits to their competencies and time. That said, as we continue to grapple with choices regarding how to shape our profession, we hope that the field will do so in a conscious and informed manner. Furthermore, in keeping with the spirit of the problem-solving model, we hope that school psychology will reflexively apply this approach to itself—continuing to evolve as a self-correcting profession that seeks the

best interests of the youth, families, and schools it serves. So, while we may not know exactly what the field will look like in 50 years, we are optimistic that wherever we land as a profession will be intentional and based on good scientific, self-correcting reasons.

In the following subsection, we shore up our optimism about the future of the field by providing additional justification for why a data-driven problem-solving approach to school psychology practice should be preferred over a traditional approach to service delivery. Specifically, we discuss the following points: (1) evidence that traditional approaches to service delivery have many problems, despite notable improvements in theory and methods; (2) information suggesting the urgency of the need for a change toward a new approach; and (3) continued evidence supporting the usefulness of the problem-solving approach for guiding the professional practice of school psychology.

Evidence That Traditional Approaches Have Many Problems

Foundational assumptions underlying much of the traditional refer–test–place approaches to school psychology practice have been challenged for decades. For example, extensive efforts to document the efficacy of assessing processing strengths or learning modalities and styles—and matching these to instructional strategies to capitalize on strengths—have failed to produce intended results (e.g., Kavale & Forness, 1987; Pashler, McDaniel, Rohrer, & Bjork, 2008; Vaughn & Linan-Thompson, 2003; Willingham, Hughes, & Dobolyi, 2015). Yet, unfortunately, this “learning styles myth” remains quite popular in education (Newton, 2015).

In her early critique of this approach as it applies to reading, Vicki Snider (1992) eloquently illustrated the logical fallacy behind this approach as she raised the thought experiment of applying modality instruction or learning styles interventions to the nonacademic skill of basketball. Snider supposed that a physical education teacher gives a learning styles inventory

to his or her class and discovers that the students were auditory/analytical learners who had weaknesses in tactile/kinesthetic areas. She imagined, furthermore, that the teacher attempts to match basketball instruction to the students' learning styles through auditory means (e.g., having them listen to tapes) and analytical means (e.g., analyze plays, engage in group discussions). Snider asked, "Why do some educators reject the notion that students can learn to play basketball by only thinking and talking about it, but embrace the idea that students can learn to read by only global and visual or tactile/kinesthetic methods?" (p. 15). Additionally, Snider wondered why this learning-styles approach to instruction considers *who* and *how* to teach but ignores *what* is to be learned. The "what" of beginning reading involves certain analytical and phonological skills, whereas the "what" of basketball requires certain tactile and kinesthetic skills. The upshot of Snider's thought experiment is to caution the use of any process that disregards the "what"—or knowledge and skills content—of the teaching equation.

In addition to criticisms of the theoretical basis for our current practices, the psychometric defensibility (i.e., reliability and validity) of diagnostic approaches, particularly with regard to LD, has been questioned. Historically, a diagnosis of an LD involved assessment of a discrepancy between a child's ability (via IQ tests) and achievement (via norm-referenced achievement tests). Alarmingly, evidence indicated that practitioners using an *ability-achievement discrepancy* (AAD) model do not diagnose LD consistently across students or districts (Epps, Ysseldyke, & McGue, 1984; Ysseldyke, Algozzine, & Epps, 1983). In addition to problems noted in the reliability of the assessment process across practitioners, other methodological issues surround traditional assessment processes (Francis et al., 2005; Hoskyn & Swanson, 2000; Stuebing et al., 2002). The AAD model for identifying LD that dominated early assessment approaches, for example, was "fraught with measurement error," yet significant decisions were made on the basis of a few AAD points (Reschly & Ysseldyke, 2002, p. 9). Furthermore, when the AAD model was applied to students with low

reading performance, results did not support the validity of differential diagnosis based on an AAD, compared with assessment based simply on low achievement in reading (Fletcher et al., 1994). In light of the evidence regarding problems with AAD approaches for the diagnosis of LD, a consensus statement was released following the Learning Disabilities Summit of 2001, sponsored by the U.S. Department of Education, noting that this IQ–achievement discrepancy was “neither necessary nor sufficient for identifying individuals with LD” (Bradley, Danielson, & Hallhan, 2002, p. 796). Finally, concerns have been raised about delays in service delivery that result when children who are initially referred for reading problems in the early grades and do not qualify for services (i.e., do not meet the AAD) are referred again in later grades, when their achievement levels fall far enough behind to qualify for the AAD (Fletcher et al., 1998). This practice is quite concerning when evidence suggests that there is a critical and short period in which we can alter reading trajectories (Simmons & Kameenui, 1998).

Although the bulk of the research reviewed above was conducted 15–30 years ago, it is important to note that these concerning findings have continued to be reaffirmed—with even more scoping and compelling evidence—within the past few years. Given the empirical challenges apparent to the AAD model for identifying LD (reviewed above), other approaches to aligning or matching cognitive abilities with achievement profiles have been proposed and integrated into the practice of school psychology. Foremost among these is the *patterns of strengths and weaknesses* (PSW) model for identifying LD. There are a few subtypes of the PSW approach to identifying LD, which we do not delve into for the purposes of this chapter (see McGill & Busse, 2017, for a review of these subtypes of PSW). But suffice it to say that all approaches to PSW share at least three core assumptions: “(a) evidence of cognitive weaknesses must be present, (b) an academic weakness must also be established, and (c) there must be evidence of ‘spared’ (i.e., not indicative of a weakness) cognitive-achievement abilities” (p. 11). In general, then, the PSW approach has more

stringent requirements than the AAD model for identifying LD. And many PSW proponents claim that it makes more theoretical sense, as it requires more precise and meaningful matching (or congruence) between specific cognitive abilities and the academic achievement domains that have been shown to correlate with these abilities (Alfonso & Flanagan, 2018; Fiorello & Wycoff, 2018). PSW has seemed like a promising innovation for LD identification and has been adopted statewide by several boards of education as a replacement for—and perceived improvement upon—the traditional AAD model. However, systematic tests and critical reviews of the PSW model have showed that, similar to the AAD approach, the evidence supporting PSW is lacking and insufficient to support its adoption as an approach for identifying LD (Kranzler, Floyd, Benson, Zaboski, & Thibodaux, 2016a, 2016b; McGill & Busse, 2017).

The AAD and PSW approaches, taken together, are the main practices that make up what is now called the *cognitive profile analysis* (CPA) approach to identifying LD. Basically, CPA refers to any model or approach that involves making inferences about how scores on cognitive ability tests relate to students' academic achievement or performance. There are many ways to do CPA, and we have focused on AAD and PSW in this chapter because they are the most prominent examples in school psychology. No matter which approach to CPA is used, however, the take-home message from reviews of the best available evidence remains the same: CPA is an ineffectual practice for identifying LD and informing LD-related intervention. This position has been reiterated most recently in a rigorous review by Fletcher and Miciak (2017), who conclude plainly that “cognitive tests are not necessary for evaluating LD” (p. 5), as well as in a meta-analysis by Burns, Petersen-Brown, and colleagues (2016), who state that “the data do not support the use of cognitive measures to develop interventions” (p. 28). We find it fitting to close this review of CPA—highlighting it as a traditional approach that has many problems—by quoting some of school psychology's leading scholars on this topic, who are themselves experts in standardized cognitive and achievement assessment. In the final paragraph

of their in-depth analysis of the best available evidence regarding the potential utility of CPA for school psychology, McGill, Dombrowski, and Canivez (2018) sum up the issue:

We recognize that school psychologists are always seeking better and sound methods to identify and help at-risk children and adolescents. While cognitive profile analysis procedures are intuitively appealing and there have been some incremental advances in the theoretical and conceptual development of newer variations of these methods over the course of the last decade, replicated empirical evidence for the reliability, validity, diagnostic utility, and treatment utility of these methods remains less than compelling. As a result, despite the perceived value of the information afforded by these assessment practices, the bulk of available empirical evidence continues to support the recommendation against using cognitive profile analysis as a focal point for diagnostic and treatment decisions in clinical practice. (p. 118)

Unfortunately, CPA is not the only problematic practice in school psychology that could benefit from updating and upgrading. Within the traditional approach to service delivery, one assumed benefit is that classification or diagnosis leads to appropriate treatment via access to special education placement and/or related services and, more important, that special education and related services benefit students (Dowdy, Mays, Kamphaus, & Reynolds, 2009). Given the amount of time and resources devoted to diagnostic and classification activities, some researchers have attempted to evaluate the degree to which diagnostic assessments actually inform treatments, as well as the degree to which students who are diagnosed and receiving services actually benefit from those services. Early studies failed to demonstrate the efficacy of special education placement for students with high-incidence disabilities, such as SLDs, speech–language impairments, emotional/behavioral disorders, mild intellectual disabilities, and other health impairments (e.g., Carlberg & Kavale, 1980; Glass, 1983; Reschly, 2008). For students with high-incidence disabilities, meta-analyses regarding the overall effects of special education identification and placement (e.g., Kavale, 2005) have been equivocal (see also Reschly, 2008). Furthermore, some studies indicated that students identified for special

education were not necessarily receiving instruction that differed from instruction provided to their peers without disabilities, thus calling into question the differential service delivery assumption behind diagnostic assessments (e.g., Thurlow & Ysseldyke, 1982) and special education placements (e.g., Ysseldyke, Christenson, Thurlow, & Bakewell, 1989; Ysseldyke & Thurlow, 1984).

Because students with and without disabilities are not—and, ethically speaking, should not be—randomly assigned to various educational services, one cannot conduct true experimental studies to test the efficacy of special education placement. Evaluating the benefits of special education is also difficult because students with disabilities have often been exempted from state- and district-level assessments. With recent movements toward accountability within educational systems, these large-scale achievement data are becoming more accessible, yet the evidence does not clearly demonstrate benefits for students with disabilities. In fact, “when performance over time is tracked, the gap in performance of students in general and special education gets wider every year, with a continual decline in the performance of the group of students assigned to special education” (Reschly & Ysseldyke, 2002, p. 7). Clearly, more research is needed in this area because preliminary evaluations have failed to demonstrate the effectiveness or efficiency of special education placement alone as an intervention (Reschly, 2008; Reschly & Ysseldyke, 2002).

Indeed, the most compelling meta-analyses to date suggest that students in more integrated special education placements (i.e., spending more time in general education classrooms) are likely to have better academic and social skills outcomes compared to those in more segregated special education placements, which are classrooms consisting solely of students with disabilities (Oh-Young & Filler, 2015). A recent longitudinal study again confirmed this effect, showing that students with disabilities who spent 80% or more of their school day in general education classrooms consistently performed better on statewide reading and math tests compared to students with disabilities who spent more time in special education classrooms (Cole,

Murphy, Frisby, Grossi, & Bolte, 2020). Although conventional wisdom suggests that special education and segregated placements are likely to lead to more intensive supports—which should, in turn, lead to greater academic success—for students with disabilities, our best available evidence has consistently failed to support this intuition.

Despite the field’s long-standing awareness of the shortcomings of these common practices, school psychology has often continued to be deficit focused, with the role of school psychologists centering around the search for pathology or disability as a means for appropriately matching intervention (e.g., Alessi, 1988). This practice is troublesome when we consider the stigma associated with many diagnostic or categorical labels, their typical lack of treatment utility, and the need for a preventive focus to comprehensively address student needs and to consider *all* students—not just those who are experiencing difficulties or who are eligible for special education services (e.g., Hoagwood & Johnson, 2003; Hunter, 2003; Kilgus & von der Embse, 2019; Power, 2003; Shapiro, 2000; Stoiber, 2014; Strein, Hoagwood, & Cohn, 2003; VanDerHeyden et al., 2019). As Reschly and Ysseldyke (2002) aptly put it, “The search for pathology dominates eligibility evaluations and confers an overall, often implicit, obsession with deficits that deflects attention from effective treatment” (p. 7). What we are advocating for as an alternative to these traditional, ineffectual approaches has been put nicely by Amanda VanDerHeyden (2018), who recommends school psychologists stop “clinging to ineffective practices” and, instead, just “do what works.” She continues to drive this point home as follows:

It is up to each individual school psychologist to use decision-making practices that will result in a positive difference in the lives of the children we serve. If you want to make big, not little, differences, select evidence-based tools of known effect, show up, and do the work to get those tools used to their greatest potential. (p. 8)

Ultimately, we believe that school psychologists will make better decisions and bigger difference in the lives of the youth, families, and schools they serve by embracing a data-driven problem-solving approach to

service delivery. Given the history of our field and current status of our evidence base, we are confident in putting forth the problem-solving approach as the most reasonable, pragmatic, scientifically sound, self-correcting method for moving school psychology forward. However, we have also been around the professional block enough times to know that taking a rigorous problem-solving approach to practice is far from easy, as the traditional approaches have longer histories, remain institutionalized in many educational systems and training programs, and are often ingrained in the minds of even the most well-intentioned educational professionals (e.g., general and special educators, school administrators). To meet these challenges, we believe successful problem solvers must have the following characteristics: (1) be open, flexible, and responsive to new information and changing circumstances; (2) be willing to recognize when they fail (i.e., when their initial hypotheses or assumptions are incorrect) and then try (and keep trying) again; (3) be committed to the trifecta of other educational movements that support problem solving and put it to good use: EBP, RTI, and MTSS (Ervin, Gimpel Peacock, & Merrell, 2010); and (4) be committed to a prevention mindset or orientation toward service delivery. In the following subsection, we briefly make the case for this last point, focusing on the importance of MTSS as a prevention endeavor.

A Focus on Prevention

In [Chapter 1](#), we described EBP, RTI, and MTSS as complimentary and important movements that help actualize a problem-solving approach to school psychology. These movements are closely related, yet each has distinct characteristics:

- *EBP* emphasizes the general processes of identifying, disseminating, promoting, and adopting empirically supported practices.
- *RTI* refers to the process of providing an EBP that is matched to student needs and then using student response data to make decisions

about the effectiveness of that specific EBP when applied in a particular, local situation.

- *MTSS* is a service delivery heuristic for integrating EBP and RTI within a multilevel approach that addresses the learning and social-behavioral needs of all students.

Working within a prevention context is at the core of the *MTSS* model, with the idea being that we can bring EBP and RTI to bear on reducing the prevalence and severity of problems within an entire school population. The following quote clearly illustrates the importance of prevention:

Communities cannot afford, and I mean this in hard economic terms as well as in humanitarian terms, to invest only in repair services.... To illustrate the point there is a fable concerning three people who were having a picnic beside the river. As they were enjoying their lunch in the sunshine, one looked up to see a child floating down the river. Immediately he leaped in and brought the child ashore. As he did so, his companions saw two more children helplessly bobbing in the water. Upon diving in to bring them out, they were dismayed to find still three more children in the river. Very quickly, they realized that the river was alive with struggling children in need of rescue. As they frantically worked to save as many as possible, one of the three suddenly left the water and began to run upstream along the bank. Seeing this, the others shouted after him in alarm, "Where are you going? Come back, we must help these children!" Continuing to run, he yelled, "You do the best you can there, I'm going up the river to try to stop them from falling in!" (Kisler, 1967, as cited in Drum & Figler, 1973, p. 13)

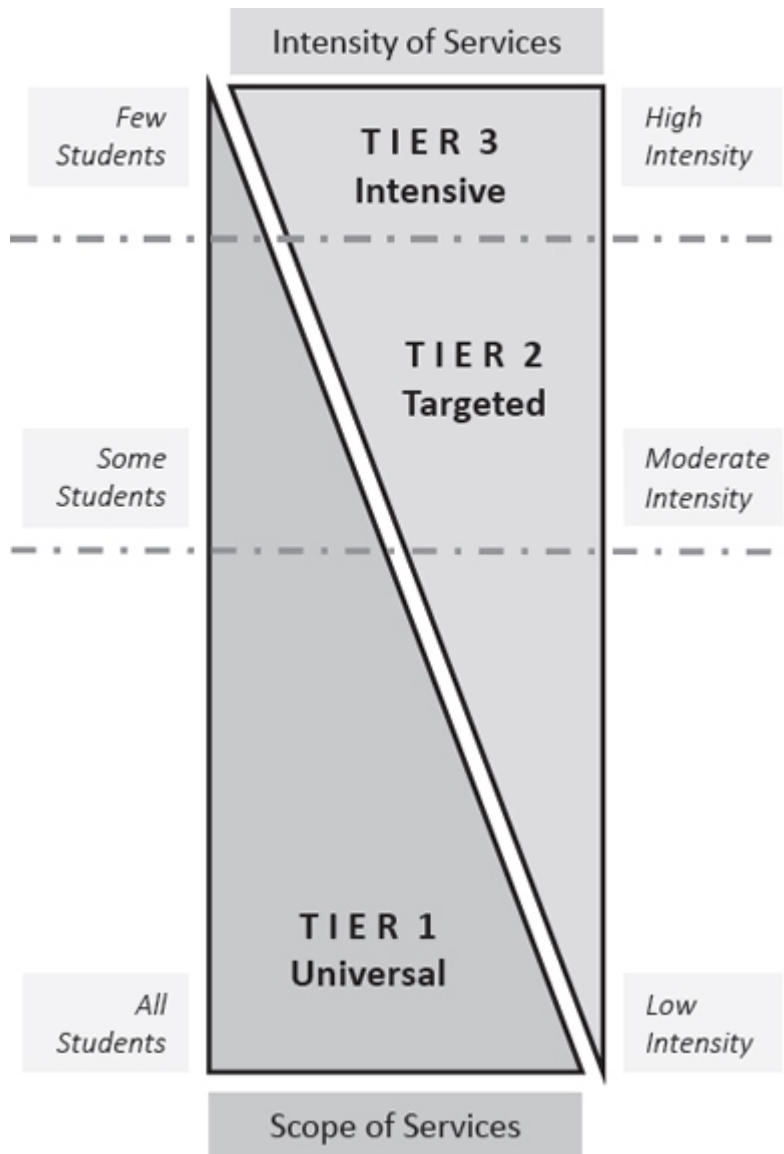
To date, school psychologists have invested much in "repair services." The children we typically serve are referred to us because they are already experiencing difficulties of some sort. Using the preceding analogy, one could argue that school psychologists spend a great deal of their time attempting to "pull kids from the river" or, if we are unable to pull them out, throwing them supports so they can stay afloat. Unfortunately, and as this parable indicates, a focus on repair services alone takes great effort and still may not be successful because of the increasing number, severity, and complexity of problems that we face. Given that we cannot simply treat our way out of this situation on a student-by-student basis, we suggest the best

path forward is to embrace what Gutkin (2012) calls an *ecological* approach to school psychology, which emphasizes prevention work at the systemic level. School psychology is therefore increasingly moving to providing services within a tiered fashion that addresses the needs of all students within a school setting. Within MTSS, scholars generally identify three tiers of service delivery (e.g., Herman, Reinke, & Thompson, 2019; Kilgus & von der Embse, 2019; Stoiber, 2014):

- *Tier 1*, also known as *universal supports* or *primary prevention*, refers to low-intensity services that are provided to *all* students within a school population, without regard of risk status. The aim of this level of service delivery is to promote overall population wellness, which prevents the onset of new problems and buffers against existing problems.
- *Tier 2*, also known as *targeted supports* or *selective prevention*, refers to moderate-intensity services that are provided to *some* students, based on identified risk factors or early indicators of the presence of problems. The aim of this level of service delivery is to support students “at risk” early and efficiently, preventing the possibility of worsening risk factors or the development of more severe problems over time.
- *Tier 3*, also known as *intensive supports* or *indicated prevention*, refers to high-intensity services that are provided to *few* students, based on indicators showing significant risk factors or severe problems. The aim of this level of service delivery is to support students “in risk” immediately and effectively, preventing further development of chronic and costly problems throughout the lifespan.

[Figure 3.1](#) represents the key characteristics of an MTSS model with three tiers. We think of the two interlocking or reflective triangles in this figure as illustrating the two aspects of practice that are under our intentional control as school psychologists: (1) the scope of students receiving services and (2) the intensity of services provided to those students. The relationship

between these two triangles is then tuned (up or down) depending on the aims of our services and the presence of risk or problems. Although the literature on MTSS and prevention work does not discuss or operationalize the *intensity* element of this heuristic in great detail, we think it is important to clarify that this refers to a ratio of time or effort or resources expended *per pupil*, not simply the raw amount of time or effort or resources expended *per school*. Thus, school psychologists could spend much of their practice role devoted to Tier 1, yet the intensity ratio per pupil at this level of service delivery would be relatively low. For example, if a school psychologist was working in a high school with 2,000 students, and spent 20 hours per week (50% of employed time) engaged in universal prevention programming, the practice time expended *per pupil, per week* at Tier 1 would only be 0.6 minutes (20 hours = 1,200 minutes per week; $1,200 \text{ minutes} / 2,000 \text{ students} = 0.6 \text{ minutes per student, per week}$). To continue the example, if this school psychologist spent the other 20 hours of employed time providing Tier 3 services (e.g., mental health intervention, assessment, and case management) to 15 students, then the practice time expended *per pupil, per week* at Tier 3 would amount to 80 minutes ($1,200 \text{ minutes per week} / 15 \text{ students} = 80 \text{ minutes per student, per week}$). If we were to then calculate a ratio of these two intensity ratios (Tier 3 practice time/Tier 1 practice time), we could say that this hypothetical school psychologist is spending well over 100 times more effort on Tier 3 students compared to Tier 1 students ($80 / 0.6 = 133.33$). This example nicely illustrates, then, how intensity of service delivery is being tuned (up and down) according to the scope of service delivery (see [Figure 3.1](#)).



[Follow for extended description](#)

FIGURE 3.1. Multi-tiered system of support (MTSS) model.

Thinking about [Figure 3.1](#) less technically and more metaphorically, we could harken back to the river analogy mentioned earlier. Specifically, we suggest that children who are already “in the river” are those represented in Tier 3 of the MTSS model, who are currently “in risk” and experiencing severe learning, behavioral, and/or social–emotional problems (see [Figure 3.1](#)). School psychologists currently spend the majority of their time and

effort providing intensive supports (i.e., individualized assessment and intervention services) to these students on a case-by-case basis. These students make up the smallest percentage of the school population, but because of the significance of their problems, they often require the majority of time and resources from school personnel (Walker et al., 1996). To continue the river analogy, the idea that we can prevent the prevalence of risk and problems by sending some folks “up river to try and stop [children] from falling in” is represented in Tier 1 and Tier 2 of the MTSS model (see [Figure 3.1](#)). Providing universal supports for all students without regard for risk status is accomplished through schoolwide reform that involves the consistent use of research-based effective teaching and behavior management practices, staff training and professional development, and systems-level decision making. On the other hand, providing targeted supports to some students with identified risk is accomplished through feasible, short-term interventions that often involve consultation-based or group-based service delivery. To extend the river analogy, then, we could say that Tier 2 services are like intentionally keeping children from wading too far into the heart of the river—recognizing that doing so decreases the probability of getting swept downstream. Whereas Tier 1 services are like stopping children from entering the river in the first place—preventing even the possibility of risk that comes along with entering the river, and further minimizing the possibility of somehow ending up down river. We think this metaphor illustrates plainly the same principle of intensity as a ratio, as it clearly expends less time per student by sending folks to do the prevention work up river than it does to rescue individual youth who have fallen into the river.

Of course, the river analogy is far from perfect, as we can never completely prevent all risk or stop the occurrence of all problems. No matter what efforts are put into place at Tier 1 and Tier 2, there are still students who will need ongoing, intensive, individualized services. An important feature of the MTSS approach to service delivery is that these students can access Tier 3 supports while still benefiting from the foundational supports

at Tier 1 and Tier 2. The MTSS model can be thought of as a vehicle for efficiently providing cumulative or aggregated supports that grow and expand according to student need (see [Figure 3.1](#)). That said, we believe that the most important feature of MTSS is not necessarily the number of tiers within the model or what we choose to call these tiers. Rather, the key feature of MTSS is its focus on applying a problem-solving approach within a prevention mindset or orientation to school psychology service delivery. Indeed, depending on available resources and needs, we imagine schools might make good use of MTSS models consisting of four, five, or more tiers, as long as these are developed with prevention in mind and leveled according to the two features that we can intentionally control within practice: (1) the scope of students receiving services and (2) the intensity of services provided to those students (see [Figure 3.1](#)).

Overview of the Data-Driven Problem-Solving Model

According to Deno (2002), the purpose of schooling is to foster the cognitive, affective, social, and physical developmental outcomes of students. Viewed in this light, Deno argues that school itself is an intervention that society has deemed important to implement on a universal level. In other words, *all* children who participate in schooling are part of a widespread intervention that is designed to alter their development from its “natural” (or unschooled) course. Within this context, it follows that the purpose of problem solving is to “eliminate the difference between ‘what is’ and ‘what should be’ with respect to student development” (p. 38). Thus, at a universal or schoolwide level, the problem-solving process begins with determining the discrepancy between (1) how students are functioning in various developmental domains when they enter school and (2) how we would like them to be functioning when they graduate. To address this initial discrepancy, schools establish a general scope and sequence of competencies that students should master through the schooling experience (i.e., benchmarks or indices of progress), with instruction focused on moving students forward through the various curricula toward the desired outcome of graduation.

Movement along this continuum of curricular materials and mastery of desired skills—toward optimal outcomes—does not occur at the same pace for all students or evenly across competency domains for individual students (Deno, 2002). Within a second-grade classroom, for example, the range of skills in the domain of reading may vary widely across students, with some reading at or above targeted benchmarks and others reading slightly or significantly behind desired levels. Teachers must employ a problem-solving process and adapt instruction to address the varying instructional needs of all students within a particular instructional domain (e.g., reading).

Similarly, at the individual student level, teachers need to address varying student needs across domains. For example, a kindergarten student may be viewed as not making adequate progress in a particular academic domain, such as reading, when this student's level of performance is not at the level expected along the continuum set by the school; yet the same student may be viewed as on target across other domains of functioning (e.g., social behavior, mathematics, writing). Thus, even for students who are making adequate progress within the general education curriculum, problem solving is needed to address various instructional needs as they move along all the continua of academic, behavioral, and social–emotional development.

The problem-solving model is therefore *outcome focused* and *context specific*. Emphasis is placed on measuring discrepancies between current and expected performance on important domains of functioning, and problem-solving activities focus on understanding the nature of this discrepancy and then developing, implementing, and evaluating interventions to reduce this discrepancy (and improve outcomes). All of these steps—assessment of the discrepancy, intervention development and implementation, and evaluation—occur within the context (i.e., setting and activity) in which the problem occurs. This focus directs the problem-solving agent (e.g., the school psychologist) toward solutions (e.g., instructional modifications) that best fit the problem context (e.g., independent seat work during math class). When school problems are viewed from a context-specific perspective, we can argue that “failure to profit from general education is relatively common and results to some extent from idiosyncratic, inappropriately arranged environmental events” (Lentz & Shapiro, 1985, p. 199). Taking a problem-solving lens to our profession allows us to forgo pathologizing students and, instead, focus solely on how we can bring about real change in the situation to ameliorate the concerns at hand.

The problem-solving perspective, although not new, is very different from the reactive focus of traditional diagnostic assessment (described earlier), which has historically dominated school psychology practice. The problem-solving model is focused on gathering information about the

problem and the problem context to develop working hypotheses about why problems are occurring and what solutions might work. These hypotheses are then tested via actionable interventions that are matched to—and then evaluated within—each unique problem context. In contrast, the traditional diagnostic model is focused on gathering information about presumed underlying learning processes and individual differences that might lead to diagnoses, with the assumption that the diagnosis will inform treatment. Thus, the problem-solving model not only employs scientifically validated tools, it also puts to use the scientific method for improving the outcomes for particular students in specific situations—*right here and right now*.

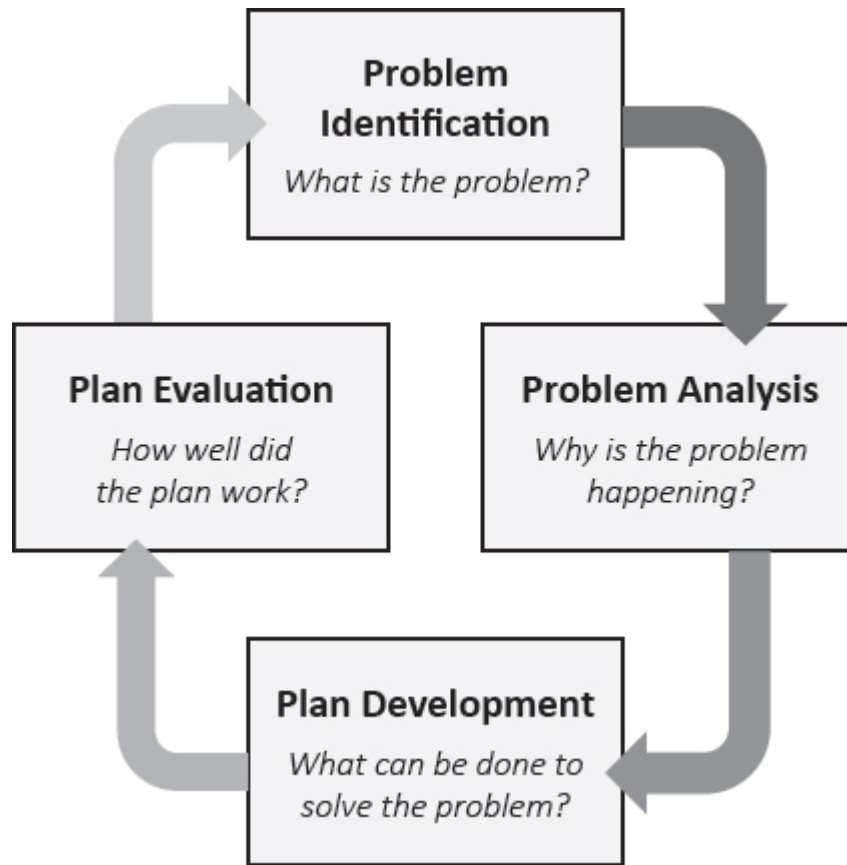
Problems that present in school settings can vary on many dimensions (e.g., magnitude, frequency, duration, complexity, resistance to intervention). Thus, the intensity of problem solving exists along a continuum and can be tuned (up or down) to match the severity of the presenting problem. For example, for some students, the discrepancy between actual and desired performance may be quite small, and problem resolution may be achieved with relatively minor adjustments to instruction or behavioral supports that could be managed by the classroom teacher within the general education curriculum (e.g., increased practice, corrective feedback, prompting). However, other students, whose presenting problems are characterized by greater levels of severity or complexity, may require additional problem-solving efforts (e.g., consultation between the teacher and a special education teacher or school psychologist) and perhaps more intensive instruction or behavioral or mental health supports to resolve their presenting concerns and curtail the development of more chronic problems. Additionally, for a smaller percentage of students, current functioning in some domains may present at levels that are severely discrepant from expected levels or that are extremely complex, intense, or resistant to intervention. These students might require ongoing problem-solving efforts to systematically address their needs and prevent exacerbation of existing problems. Finally, when a child's problem becomes chronic and pronounced,

it may be necessary to provide instructional or behavioral or mental health supports beyond what would typically be delivered in general education.

As noted earlier, the problem-solving approach can be applied along the continuum of student needs to address the wide range of problems presented by students within school settings. At each level of problem severity, problem solving may also vary in intensity, yet it will always follow a consistent process or series of steps or phases. Many models of problem solving appear within the school psychology literature (e.g., Bergan & Kratochwill, 1990; Ervin et al., 2010; Kratochwill & Bergan, 1990; Pluymert, 2014; Sanetti & Collier-Meek, 2019; Witt, Daly, & Noell, 2000). Across these models, Tilly (2002, 2008) notes that “four thematic questions guide practitioner thinking: What is the problem? Why is it occurring? What should be done about it? Did it work?” (2002, p. 27). This same line of questioning is used not only to guide problem solving along the continuum of individual student needs but also to address problems at small-group, classroom, and schoolwide levels. As Pluymert (2014) says in a recent comprehensive chapter on this topic, “The important point here is that whether a district is evaluating student math performance across grade levels in response to new curriculum adoption, or a school-based team is evaluating the reading performance of an individual struggling reader in third-grade, the problem-solving process is the same” (p. 25).

In the following subsections, we summarize the line of questioning that drives the steps or phases involved in the problem-solving process (see [Figure 3.2](#) for a representation of this process). Recognizing that there are many versions or iterations of the problem-solving model, what we present below is based primarily on Tilly’s (2002, 2008) and Pluymert’s (2014) descriptions of this approach, as we believe these offer the most parsimonious understanding of problem solving that might serve as the most general guide for school psychology service delivery. After outlining the basics of problem solving, we end with a description of how this approach might be embedded and sustained within the school context to

address the needs of *all* students from a preventive stance that is consistent with the EBP, RTI, and MTSS movements.



[Follow for extended description](#)

FIGURE 3.2. Problem-solving model.

Phase 1: What Is the Problem?—Problem Identification

The initial steps in solving any presenting problem are, first, recognizing and confirming its existence as a problem and, second, determining that it is, in fact, a problem worth solving. As we noted earlier in this chapter, in a data-oriented problem-solving model, problems are defined as discrepancies between “what is” (i.e., current performance/outcome) and “what should be” (i.e., expected/desired performance) on some domain of functioning. For example, when there is a discrepancy between a student’s *current* and

expected reading performance, in some circumstances this discrepancy may be viewed as a *problem*. In order for this step to occur, someone (e.g., a teacher or parent) must first notice the problem (i.e., discrepancy). This recognition requires some lived experience with or intentional monitoring of the student's current reading performance, as well as knowledge or information pertaining to expected reading performance (e.g., relative to same-age peers or grade-level performance criteria). Furthermore, in order to gain a clear understanding of the problem, it is important to use objective means to measure the discrepancy and confirm its existence.

Selecting standards for comparison to determine expected levels of performance (e.g., professional experience, teacher preference, parental expectations, developmental norms, medical standards, template matching, curriculum standards, local norms, national norms, and classroom peer performance) is not always an easy task. It requires professional judgment and some understanding of measurement issues (see [Chapter 8](#) for further discussion of assessment tools and heuristics). Within a problem-solving framework, it is important that selected assessment tools and measurement techniques help to clearly define the problem in objective, observable, and measurable terms. The goals of this first step or phase are to (1) get consensus about the right problem to solve and then (2) develop an operational definition of the problem that is good enough to help everybody “get on the same page” of understanding about the presentation of the problem (Pluymert, 2014). In addition, as emphasized above, we need to consider direct measurement of problems within the context in which they occur. Precision is extremely important at this stage of the problem-solving process, and quantifying the problem as a “discrepancy or difference score causes problem solvers to be objective about the problem” (Tilly, 2002, p. 29). The question becomes “How wide is the gap between actual and desired performance in this particular domain of functioning?” To quantify discrepancies, it is important to think in terms of measurement dimensions that are amenable to change (e.g., frequency, duration, latency, magnitude).

This careful measurement process involved in the *problem identification* phase also helps to formalize goals for students (i.e., a reduction in the discrepancy). When the discrepancy is large, it is sometimes necessary to consider short-term goals (or benchmarks) and long-term goals. For example, a student who is reading at a level that is significantly below that of peers (e.g., a discrepancy of three grade levels) is not likely to catch up in a short period (e.g., 1 year). Instead, a more reasonable short-term goal (or benchmark) might be set and progress-monitored along the way to the ultimate, long-term goal. Direct and frequent measurement is helpful in identifying problems; promoting agreement across stakeholders (e.g., parents, administrators, and teachers) about what the problem is; and, once an intervention is in place, determining whether or not it is improving. Furthermore, with the help of evidence-based assessment (EBA) tools, one can discern magnitude or problem severity in an objective fashion, which can be helpful when prioritizing problems within and across students. Of course, there are certain practical constraints to measuring discrepancies in applied settings, such as the time, resources, and competencies of a given practitioner or problem-solving team. Thus, skillful problem solvers need to consider the precision, objectivity, feasibility, and acceptability of various measurement options when engaging in this first step of the problem-solving process. Ultimately, the problem identification phase ends when the problem is defined clearly enough to permit the second step in the process: problem analysis.

Phase 2: Why Is It Occurring?—Problem Analysis

Once we have established that a problem exists and is worth our time and effort to solve, we move to the next stage in the problem-solving process: *problem analysis* (see [Figure 3.2](#)). In this stage, we gather further information about the problem and ask the question “Why is this problem occurring?” The overarching goal of this phase is to develop testable hypotheses about why the problem is happening (Pluymert, 2014). In a

problem-solving approach to school psychology, emphasis is placed on linking assessment data to viable treatments and appropriate evaluation (Lentz & Shapiro, 1985). In the problem analysis phase, then, “instead of measuring student performance to find disabilities, our purpose is to diagnose the conditions under which students’ learning is *enabled*” (Tilly, 2002, p. 29, original emphasis). To do this, we need to conduct an analysis of the problem context and function (see Jones & Wickstrom, 2010). One important question to answer in the problem analysis phase of the process is whether the problem is a *skill* (“can’t do”) or a *performance* (“won’t do”) problem (for more information on the “can’t do/won’t do” assessment method, see VanDerHeyden, 2014; Witt et al., 2000). When the problem is identified as a skill or performance deficit (i.e., the student’s actual performance level is less than what is expected), then several follow-up questions can help to further analyze the problem. For example, is the reason for this deficit that (1) the student does not want to perform the task or activity, (2) the student gets something (e.g., attention, access to a preferred activity or object, sensory stimulation) as a result of not performing the task, (3) the work is being presented at a level that is too difficult for the student, (4) the student has not been provided with enough assistance to acquire the skill, (5) the student has not been given sufficient time or practice with the skill to do it fluently, or (6) the work is being presented in a way that is different from the way the student has usually done the work? Asking—and then getting to the bottom of—these questions is the essence of the problem analysis phase.

As mentioned above, the purpose of the problem analysis phase is to gain an understanding of why the problem exists and to use this information to generate hypotheses about what might be done differently to solve the problem (Pluymert, 2014). For example, if we suspect that the student’s academic engagement problem is related to the fact that the student is experiencing significant internalizing symptoms (e.g., performance anxiety), then our hypothesized intervention strategy might focus on providing an intervention targeted toward developing self-regulation skills that help the

student cope with the internalizing symptoms during performance situations (e.g., relaxation or mindfulness skills). Alternatively, if we suspect that the student's academic engagement problem is due to the fact that the student has not yet mastered the academic skill needed to effectively engage in the task (e.g., reading fluency), then our hypothesized intervention strategy might focus on increasing opportunities to read (e.g., paired reading, reading at home, repeated reading exercises). Alternatively, if we are concerned that the student's academic engagement problem is not related to a skill deficit ("can't do") but is instead a motivational problem ("won't do")—a way of escaping the undesirable or otherwise aversive reading task—then our hypothesized intervention strategy will focus on something different: how to make the reading situation more reinforcing and/or less punishing for the student. For example, we might make the task less aversive (e.g., considering the use of interesting reading materials or choice of materials), teach the student a different and more appropriate way to let us know that the task is aversive (e.g., asking for a break), and/or allow escape from the task contingent on some criterion of performance (e.g., allowing brief breaks from reading for appropriate performance after a predetermined number of minutes on task). In each of these scenarios, the *problem* is essentially the same (i.e., a discrepancy between actual and desired reading performance), but the solutions are very different because of what is discovered and learned about the problem during the problem analysis phase.

During the problem analysis phase, information may be gathered from a variety of sources (e.g., student, teacher, parent, peers, administrator) via a variety of assessment tools (e.g., formal and informal direct observational methods, semistructured and unstructured interviews, anecdotal reports, rating scales, review of records, curriculum-based measures) to answer the preceding questions. The purpose is to understand why (or under what conditions) problems are more pronounced and to identify patterns and factors that contribute to the problem. We recommend focusing on directly measuring when, where, with whom, and during which activities the

problem is more or less likely to occur or become exacerbated. Given the assumption that many, if not most, student problems are a result of inappropriately arranged classroom and instructional events, attempts are made to examine potential contributing factors (e.g., materials, instructional strategies) that can be easily altered. Of course, factors that are outside of the school's control (e.g., allergies, illness, divorce) may play a role in the development or maintenance of the presenting problem. Yet when analyzing problems with future intervention development in mind, it is important to focus on what we can actually change to improve outcomes. As Pluymert (2014) puts it, preference should be given to “the most plausible and alterable hypotheses” (p. 31). For example, knowing that a student has a significant visual impairment is important for instructional planning, but it is unlikely that the cause of the visual impairment will be the focus of the intervention for school personnel, as this biological cause is unalterable. Instead, it is likely that the school will consider instructional accommodations (e.g., modified materials, vocal cues) to enable the student to benefit from instruction, despite the visual impairment, as these changes are both *plausible* and *alterable*. This problem analysis phase of the problem-solving model terminates when hypotheses about why the problem is happening become both actionable and feasible enough to guide the next phase of the model: intervention plan development.

Phase 3: What Should Be Done about It?—Intervention Plan Development

When we conceptualize problems as discrepancies between “what is” and “what should be,” we are driven by the need to identify a solution that reduces this discrepancy. It is at this stage of the problem-solving process that we use the information gathered thus far—and the conclusions based on that information—to decide what should be done about the problem (see [Figure 3.2](#)). In addition to developing hypotheses about why the problem is occurring and linking this information to the selection of appropriate

intervention strategies, one should consider interventions that have demonstrated empirical support (see [Chapters 9](#) and [10](#) for more discussion on this topic; see also Burns et al., 2017; Gimpel Peacock et al., 2010, Chapters 12–28; Theodore, 2016; Weisz & Kazdin, 2017). Thus, within the *intervention plan development* phase, an intervention strategy is selected and based on its functional relevance to the problem, contextual fit, and likelihood of success. After identifying an appropriate intervention strategy, it is important to specify the intervention techniques and procedures that will be used. For example, when deciding what we should do about a problem, we need to clarify the intervention steps, roles, and responsibilities, as well as the monitoring and evaluation protocols. We also need to figure out how often, for how long, and in what location the intervention will be delivered. In addition, it is important to determine the adequacy of existing resources and the need for additional resources involved in implementing the intervention. Furthermore, timelines for implementing objectives and achieving desired short-term or long-term goals should be specified. And, finally, planning should be made to ensure support for and proper monitoring of implementation integrity. Given that presenting problems can be more or less complex, the logistics of resulting intervention plans can be likewise more or less complex. But no matter the details, the most important point is to ensure that the plan be reasonable, feasible, and acceptable to all involved (Pluymert, 2014). The intervention plan development phase concludes when a clearly delineated intervention plan is created—a plan that can then be tested in the next and final phase of the problem-solving model: intervention plan evaluation.

Phase 4: Did It Work?—Intervention Plan Evaluation

As we emphasized several times throughout this chapter, the goal of the problem-solving process is to resolve the discrepancy between “what is” and “what should be.” Thus, the process does not simply end with a thorough description or analysis of the problem. Nor does it end with a careful

description of a potential solution to the problem. In order for the process to be completed, the problem should be resolved. Therefore, the plan must be implemented and, along the way, evaluated. Collecting ongoing information regarding the discrepancy between desired and actual performance is the best way to determine whether or not the intervention plan is effective. Thus, continuous outcome or progress monitoring and evaluation are essential parts of the *intervention plan evaluation* phase of the problem-solving model (see [Figure 3.2](#)).

At this stage, objective evidence should be gathered to determine whether the implemented intervention plan is effective (i.e., behavior change in the direction of the goal), practical (i.e., relatively easy to implement with integrity), and acceptable (i.e., perceived positively by those implementing and receiving the services). To ensure that the intervention itself—and not some other factor—is responsible for problem resolution, it is important to compare the extent of a problem during intervention with the extent of the problem preintervention (i.e., when the intervention was not yet in place). We suggest that single-subject evaluation methods (discussed in [Chapter 12](#)) are the most useful and rigorous methods for determining the effects (or lack thereof) of intervention plans on student outcomes (see Kazdin, 2019). When evaluating an intervention plan, there are two possible determinations: either the plan is *successful* (i.e., working as planned) or it is *unsuccessful* (i.e., failing to work as planned; Pluymert, 2014). If the plan is successful, then the next steps involve refining, optimizing, and, eventually, fading the plan until satisfactory problem resolution is achieved and agreed upon by all involved in the problem-solving process. If the plan is unsuccessful, however, then the next steps involve recycling through the previous stages of the problem-solving model—applying the process reflexively to (1) identify what about the plan is not working, (2) analyze why that part of the plan is not working, (3) redevelop the plan based on this analysis, and then (4) reevaluate the effectiveness and integrity of this updated plan. Although the problem-solving process sometimes works well on the first try, we have observed that for many problems, multiple iterations

of the process are needed to reach success. Flexibility, persistence, and responsiveness on the part of the problem solver or problem-solving team are therefore more than just *niceties* for making this model work—they are *necessities*.

Summary of the Critical Features of a Data-Driven Problem-Solving Model

The problem-solving model is *outcome focused*, *data driven*, *integrally linked to intervention*, and *context specific*. One of the most important features of this approach is the emphasis on measurement to guide decision making throughout each phase of the process. In fact, if we were asked to identify the most important feature of this process, it would be the *focus on data-based decision making*, which permeates all phases of the model. Consistent with an empirically or scientifically based approach to practice, the problem-solving model depends less on subjective judgment than on quantifiable feedback generated by the information collected throughout each phase of the process. An important feature of the type of information used in this process is that it is objective, observable, and measurable. The focus is on learning outcomes and alignment of student skills with curriculum and instruction rather than internal processes alone. In addition, data collection emphasizes direct over indirect methods, as well as methods that are repeatable and lend themselves to formative assessment of learning outcomes. At all stages of the problem-solving process, attempts are made to use tools and procedures that do not require significant levels of inference (Pluymert, 2014; Tilly, 2002). Similarly, the problem-solving process is context specific, and disabilities are viewed as problems only if they result in a functional impairment within a particular context. This viewpoint keeps the focus on aspects of the problem situation that are both plausible and alterable (i.e., what we can change), and reduces the interpretive leap necessary to move to intervention.

The School Psychologist's Role

We believe school psychologists can make significant contributions to improving the well-being of the students, families, and schools they serve through the vehicles of EBP, RTI, and MTSS that are fueled by a problem-solving approach. The same problem-solving process is flexible enough to be applied at the district, school, classroom, and individual student levels. And it is generalizable enough to be applied to any type of problem (e.g., academic or social–emotional) at any level of severity (e.g., mild to moderate to severe). One key to success in this model is the use of quantifiable, objective data to guide decision making at all phases and levels. The other key to success when using this approach is to engage the problem-solving process—either individually or as a team—in a way that is flexible, persistent, and responsive to changing conditions. Although using the problem-solving model does not always guarantee a successful resolution *immediately* (i.e., after the first cycle of completing each of the four phases within the model; see [Figure 3.2](#)), we are convinced that adhering to and recycling this process is a sure-fire way to *eventually* improve outcomes and reach success. Ultimately, we believe the school psychologist of the future has much to offer students, families, schools, communities, and the world by approaching service delivery using a problem-solving approach.

Discussion Questions and Activities

1. Visit the library and consult the early issues (i.e., prior to 1990) of *School Psychology Review*. See if you can find at least one example of an article that espouses a traditional (i.e., correlational or ATI) approach and one example of an article that espouses a problem-solving (i.e., experimental) approach. Now, examine some of the more recent literature (i.e., post-2010) and see if you can find a more current article that is consistent with a traditional (i.e., correlational or ATI) approach and one that is more consistent with a problem-solving (i.e., experimental) approach. Discuss whether the issues raised regarding the utility of ATI have been resolved.
2. Interview parents, teachers, administrators, and school psychologists regarding their perceptions of the current role and their ideal/preferred role of the school psychologist. If differences between the current role and ideal/preferred role are expressed, ask what barriers the individual thinks are getting in the way of the ideal/preferred role. Were there differences between perceptions of current and ideal/preferred roles? Were perceptions of the school psychologist's current role more consistent with a traditional (diagnostic) or an alternative (problem-solving) approach? What about perceptions of the ideal/preferred role?
3. Talk to school psychologists, teachers, or administrators to determine whether their schools are using an MTSS process. If they are, how are students identified for different tiers of services and what sorts of supports are available at each tier? If they are not, what prevention/intervention methods/processes are being used?
4. Interview a school psychologist about the typical process (steps) followed when working with an individual referral. Is the process more consistent with a traditional approach or with a problem-solving approach? Does the school psychologist define problems as discrepancies? Is measurement an integral part of the process? What type of information is collected to inform treatment? Is evaluation of the treatment part of the process or does this process end with assessment and recommendations?
5. Search the literature for problem-solving formats that were developed for use in school settings. From the information you collect, examine the forms and create your own version of a line of questioning that helps guide the process.

Chapter 4



Becoming Culturally Responsive

Diversity and Multicultural Issues in School Psychology

with **Rebecca S. Martínez**

At the writing of this edition, we are two decades into the 21st century, and for the first time in our modern history, the majority of students in U.S. public schools are *students of color*.¹ According to the National Center for Education Statistics, 2014–2015 was a landmark school year. For the first time, White students were the majority minority, representing 49% of PreK–12th-grade students. By 2027, it is projected that 55% of the student population will be students of color. Leading the population increase will be students who identify as Latinx,² Asian/Pacific Islander, and students who identify as two or more races (de Brey et al., 2019). Furthermore, students for whom English is not their first language and who are gaining English proficiency in school (i.e., English learners³ [ELs]), who may or may not be students of color, are the fastest growing segment of the school population. School personnel are more likely than ever to work with ELs at some point in their career (Albers & Martínez, 2015). It is important to note that, as the student population continues to diversify, the education workforce remains predominantly White, with 80% of public school teachers and over 85% of school psychologists reliably identifying as White over the past two decades.

The growing racial, ethnic, and cultural diversity of school-age children, coupled with a predominately White educational workforce, behooves educators to think of ways to equitably and effectively meet the diverse academic, behavioral, social–emotional, and mental health needs of *all* students. A deeper understanding of diversity considers individuals’ multiple intersecting identities (e.g., disability, race, ethnicity, gender, religion/spirituality, sexual orientation, social class, language, and immigration status). Thus, it is important to recognize that there may be more heterogeneity *within* groups than across or between groups, highlighting further the need for *culturally responsive* practices (Lopez & Burszryn, 2013). Culturally responsive school psychologists do not know everything about every minoritized or marginalized group—instead, they are committed to honing their multicultural competence across their lifetime. As culturally responsive school psychologists, we engage continuously in activities and practices that teach us how to effectively and equitably serve all students who might be minoritized or marginalized on the basis of one or more identity categories.

We believe that the capacity to serve all students well, particularly those from one or more minoritized or marginalized groups, is related to our readiness to engage in self-evaluation and self-reflection. In other words, our willingness to engage in ongoing, honest self-assessment about our awareness (or lack of awareness) and inclination (or reluctance) to serve all students well, is inextricably linked to our actual effectiveness in advocating for minoritized and marginalized students. The process of becoming culturally responsive school psychologists necessitates robust intellectual grappling with and honest dialogue about our own biases (we all have them!) and gaps in our knowledge (we all have these, too!). Furthermore, we believe it is imperative that we move beyond a superficial and scripted narrative of preservice and in-service multicultural training that fails to truly prepare practitioners for working with racially and ethnically minoritized children in real schools with real students and teachers (Frisby, 2013, 2015). This agenda must become firmly embedded throughout school

psychologists' preservice training. Multicultural growth then must actively continue during the in-service years.

In this chapter, we adopt the term *culturally responsive*, which comes from the teaching literature and refers to pedagogical practices that acknowledge and celebrate cultural differences and strengths in ways that include and promote learning for all students (Ladson-Billings, 1994). We assert that school psychologists' journeys to becoming culturally responsive necessarily includes multicultural *awareness*, multicultural *knowledge*, and multicultural *skills* (Li, Ni, & Stoianov, 2015; Sue et al., 1982), which we discuss in detail in this chapter. This tripartite framework for increasing school psychologists' cultural responsiveness includes:

1. Multicultural awareness of privilege and oppression as they relate to one's own worldview, values, biases, and misconceptions, and how these may differ from those of the colleagues with whom we work and the students and families that we serve.
2. Multicultural knowledge concerning broad issues (e.g., race and racism) and the worldviews of culturally different student groups (e.g., Black students; ELs; immigrants, lesbian, gay, bisexual, transgender, queer or questioning [LGBTQ] students) that help us understand the broader landscape of diversity in today's schools.
3. Multicultural skills related to culturally appropriate intervention strategies.

Much of the content covered in this chapter is material that might be covered in graduate courses on multiculturalism and readers of this chapter might concurrently be enrolled in such a course. *Reading about* and *openly discussing* topics concerning race and ethnicity, and power and privilege, might feel impolite and uncomfortable. After all, nobody wants to appear uneducated or insensitive. Nevertheless, for there to be genuine growth in our understanding of, and ability to serve, those who are different from us, we must engage in honest and open dialogues within ourselves and with our

colleagues. We want you to *challenge yourself* while reading this chapter to bravely confront what you *think* you know, and open yourself up to learning new information. We hope you consider the concepts and ideas we present in this chapter as a starting point in your lifelong personal and professional journey as a culturally responsive school psychologist.

Multicultural Awareness

Awareness of our own worldviews and attitudes toward people who are different from ourselves is a hallmark of being culturally responsive school psychologists. Hall and Theriot (2016) aptly noted that “the road to cultural competence begins with an understanding of one’s own personal and professional cultural awareness” (p. 37). In accordance with Domain 8 of the NASP Model for Comprehensive and Integrated School Psychological Services (NASP, 2020b), school psychologists should acknowledge and be aware of the impact of biases and beliefs within their professional practice. In the following section on multicultural awareness, we discuss oppression and White privilege, implicit bias and microaggressions, and racial colorblindness. It is important to note that these are complex topics and our discussion here is intended as a brief introductory overview. We encourage readers to take deeper dives into this material to more fully appreciate and understand these concepts. We are all lifelong learners when it comes to being culturally responsive school psychologists.

Oppression and White Privilege

One of the features that all “isms” (e.g., racism, classism, anti-Semitism) share is that they are rooted in oppression. The origin of the word *oppression* is literally to squeeze or suffocate. Taylor (2016) defines oppression as “a form of injustice that occurs when one social group is subordinated while another is privileged,” noting further that “oppression is maintained by a variety of different mechanisms including social norms, stereotypes, and institutional rules” (p. 520). Indeed, oppression of minoritized and marginalized people can happen at both systemic (e.g., the Holocaust, school-to-prison pipeline) and interpersonal (e.g., yelling racial slurs at individuals or groups) levels. At the opposite end of the continuum of

oppression is *privilege*. As we discuss in a later section, race is a dynamic social construct that has changed over time according to how people in power (usually White men) have defined it. In other words, people in power make the rules and the rules create power hierarchies. Recognizing that White privilege exists is a *necessary* but *insufficient* condition for confronting and dismantling the power hierarchies that support racism.

The concept of White privilege, put simply, refers to the benefits White people have simply because they are White (McIntosh, 1989). Discussions about Whiteness and White privilege make some people extremely uncomfortable and others deny that White privilege even exists. Our purpose here is not to elicit guilt or shame. Doing so is counterproductive to fostering multicultural awareness (Lund & Carr, 2015). Rather, our intention here is to underscore how being White is accompanied by “unearned power conferred systematically” (McIntosh, 1989) and how that power perpetuates oppression and hurts people of color. In a provocative essay titled “White Privilege: Unpacking the Invisible Knapsack” (<https://nationalseedproject.org/Key-SEED-Texts/white-privilege-unpacking-the-invisible-knapsack>), Peggy McIntosh lists numerous examples of how being a White person has afforded her privilege throughout her life (e.g., “I can do well in a challenging situation without being called a credit to my race,” “I can be pretty sure of having my voice heard in a group in which I am the only member of my race,” and “I am never asked to speak for all the people of my racial group”). Reading McIntosh’s essay is an excellent way to begin understanding the role of race in this country and will support efforts at becoming more culturally responsive in all aspects of life.

Racial Colorblindness

Often in the context of discussing race and racism, well-meaning (frequently White) people will say that they are “colorblind” or that they do not “see color” because they believe that everybody is equal. We want to challenge your thinking if you are someone who believes that you are racially

“colorblind.” Research shows that people who believe that they are racially “colorblind” are actually more culturally insensitive than people who do not believe they are colorblind (Wang, Castro, & Cunningham, 2014). Moreover, some scholars argue that racial “colorblindness” actually is an insidious form of racism. Some researchers have called this the theory of *colorblind racism* (Bonilla-Silva, 2009). Because people of color have historically been oppressed and denied certain privileges that Whites have (but did not earn), the idea of colorblindness invalidates this reality and trivializes the extraordinarily negative impact that racial inequality has had on people of color (Burke, 2017), particularly Black people. Racial colorblindness assumes that racism is not a problem (Bonilla-Silva, 2009), yet it is (West, 1994). When we disregard race, we disregard the very real experiences that people of color have experienced historically and to this day. Culturally responsive school psychologists acknowledge the painful consequences of racism and work to combat it.

Implicit Bias and Microaggressions

Implicit biases are unconscious and automatic biases. Often, our implicit biases are seemingly benign. For example, when a friend tells you that a child’s teacher gives too much homework and you assume that the teacher is female (when the teacher might be male), that is implicit bias. Likewise, when your female colleague refers to her partner and you assume the partner is male (when your colleague might be in a committed lesbian relationship), that is implicit bias. Implicit biases are often, however, understood and discussed in relation to discrimination and oppression. For example, the implicit biases held by corporate leaders in a company that women are not as competent as men results in a disparate wage gap between men and women in the company. Or the implicit bias that people of color are dangerous results in a White female grabbing her purse more tightly when a person of color enters the elevator. Implicit biases often manifest in comments or behaviors that are called microaggressions. The term

microaggressions was first coined by Chester Pierce in 1970, who described racial microaggressions as any subtle, automatic acts Black Americans experience; the term is now widely used to describe these experiences in any minoritized or marginalized group (Sue, Sue, Neville, & Smith, 2019). More specifically, microaggressions are “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults to the target person or group” (Sue et al., 2007, p. 273).

Sue and colleagues (2007) classified microaggressions into three categories: *microassaults*, *microinsults*, and *microinvalidations*. Microassaults are explicit and discriminatory verbal epithets; they are what we would commonly classify as a racist, sexist, or otherwise derogatory remark based on the real or perceived association with a particular group. Microinsults are usually unconscious, but they are rude and insensitive communications that demean a person’s race, culture, or identity. For example, telling a Latinx person, “You speak very good English” signals that the person believes Latinx individuals do not speak English well. Microinvalidations negate or ignore the thoughts, feelings, and reality experienced by people of color. Citing an example from a concept discussed above, when one states “I don’t see color,” this person invalidates the experiences of people of color. To further illustrate the concepts of implicit bias and microaggressions, we encourage readers to review materials that provide examples of this concept, including the NASP (2017a) handout *Implicit Bias: A Foundation for School Psychologists* (www.nasponline.org/resources-and-publications/resources/diversity/social-justice/implicit-bias-a-foundation-for-school-psychologists). Understanding our implicit biases and how they can manifest in the various types of microaggressions is another aspect of our multicultural awareness and in becoming more culturally responsive school psychologists.

Multicultural Knowledge

Culturally responsive school psychologists should become familiar with the key concepts, definitions, and historical events that we present in this section. The multicultural *knowledge* we discuss here serves as a starting point in understanding some of the historical underpinnings that continue to oppress minoritized and marginalized groups. We present these concepts and events within the context of discussing minoritized and marginalized groups in 21st-century public schools. We believe the multicultural knowledge presented here provides a necessary, albeit insufficient, foundation for becoming more culturally responsive.

Race and Discrimination

Scholars define race as a *social construct*, not as a biological difference between groups of people. Consider the fact that 99.9% of human genetic characteristics are common across all people—humans basically, at the core, are all the same. Historically, however, what it *means* to be a person of color or what it means to be White has changed. In other words, racial constructions (i.e., how we define race) and racial self-identification (i.e., how people define their own race) have changed over the ages, depending on the social and political conditions of the time. The fact that race is a social construct is not meant to discredit the fact that race is real. Furthermore, how race is *perceived* has significant consequences for how people treat one another. It may come as no surprise, but as early as elementary school, children are able to detect that certain behaviors are discriminatory or racist (Tatum, 1997). Discriminatory behaviors intended to hurt people spring from the perceived differences in the worth and value of one person over another and are based solely on the color or shade of their skin. That said, it is important to keep in mind that discrimination is

not limited to race but can be experienced by any minoritized or marginalized group on the basis of any identity status, including disability, race, ethnicity, gender, religion/spirituality, sexual orientation, social class, language, immigration status, etc.

Across history, perceived racial differences in the United States have simultaneously helped to define and divide Americans (Banks & Nguyen, 2008). Recent survey data show that Americans believe that racial discrimination persists to this day and is a significant social problem (Pew Research Center, 2015). Consider the fact that racially driven incidents are reported in the news regularly. At universities across the United States, incidents of racial slurs and lewd language have been used to taunt, torment, and discriminate against students of color. In the age of social media, there is no shortage of news stories about posts or tweets containing disparaging anti-Semitic, anti-immigration, or racist remarks. In [Chapter 2](#), we discussed the importance of understanding the field's past in order to move the field forward. In a similar vein, it is critical to understand the origins of racism and other oppressive "isms" if we are to move forward in our efforts to combat them, both in and out of our schools. Although a detailed historical recounting of the origins of racism is beyond the scope of this book, it is critical for culturally responsive school psychologists to have a basic understanding of the history of school segregation and integration.

School Segregation and Desegregation

The Civil Rights Movement of the 1950s and 1960s, among other major events, sought to desegregate public schools (i.e., to end the legally enforced separation of Black and White students) across the United States. As noted in [Chapter 2](#), the 1954 landmark ruling of the U.S. Supreme Court in *Brown v. Board of Education* held that segregated schools were not acceptable and violated the equal protection clause (i.e., that states are to guarantee the same rights, privileges, and protections to *all* citizens) of the 14th Amendment to the U.S. Constitution. Furthermore, the *Brown* ruling

acknowledged that student separation in the schools on the basis of skin color was inherently unequal and discriminatory. Nevertheless, there was so much pushback following the ruling of the *Brown* decision that in 1955 the courts ruled again in *Brown v. Board of Education II* and ordered schools to integrate students of color “with all deliberate speed.” Following the second *Brown* ruling, and despite continued opposition, integration was initiated by brave students across the country who took a leap of faith and began to slowly matriculate in all-White schools. Some of the better-known heroes in the desegregation movement include the Little Rock Nine, as they came to be known. In 1957 in Little Rock, Arkansas, nine Black students—Minnijean Brown, Elizabeth Eckford, Ernest Green, Thelma Mothershed, Melba Pattillo, Gloria Ray, Terrence Roberts, Jefferson Thomas, and Carlotta Walls—became the first Black students to matriculate at Central High School, despite the governor’s unrelenting efforts to block them. A few years later in 1960, 6-year-old Ruby Bridges was the first Black student to enroll in an all-White elementary school in the south: the William Frantz Elementary School in New Orleans, Louisiana. These, and countless other students of color and their families, helped begin the dismantling of school segregation. Nevertheless, as we noted in [Chapter 2](#), the full promise of equality in American public schools has yet to be fulfilled. The educational achievement gap, disproportionate representation of students in special education, and unequal punitive disciplinary measures are at least three ways in which modern-day inequality continues to manifest in schools.

Educational Disparities

Perhaps the most robust way in which racial disparities manifest in the United States is in the unrelenting educational achievement gap. Data from the National Assessment of Educational Progress (NAEP; i.e., the Nation’s Report Card; see www.nationsreportcard.gov), which includes a national representative sample, consistently reveals wide gaps in both reading and math achievement between White students and non-Asian students of color.

The percentage of students scoring at the proficient level or above has consistently been higher for White and Asian students than Black, Latinx, and American Indian students. In 2019, for example, 45% of fourth-grade White students and 54% of Asian students were proficient or above in reading skills, compared to 18% of Black students, 23% of Latinx students, and 19% of American Indian students. For math skills, during that same time period, 52% of fourth-grade White students and 66% of fourth-grade Asian students scored in the proficient range or above. However, only 20% of Black students, 28% of Latinx students, and 24% of American Indian students were proficient or above. Similar percentages (and similar differences) were also seen during that period in eighth-grade students in both reading and math. For EL students, the gaps are even more stark. In 2019, 10% of EL fourth-grade students were proficient in reading and 16% were proficient in math, compared to 39% of non-EL students who were proficient in reading and 44% of non-EL students who were proficient in math.

Many sociological, political, and institutional reasons have been posited for the discrepancies between White students and students of color. Some explanations for the achievement disparities include wealth and income imbalances (Lynch & Oakford, 2014), income segregation between school districts (Owens, 2018), and even school punishment and disproportionate disciplinary practices (Perry & Morris, 2014). Poverty is the most powerful risk factor for considerable negative outcomes in youth and adults (Ratcliffe & McKernan, 2012). Non-Asian students of color are consistently more likely than White students to live in poverty. In 2016, 31% of Black children and 26% of Latinx children were living in poverty (based on the official poverty measure), compared to 10% each of Asian and White children (de Brey et al., 2019). Despite efforts (e.g., preschool programs, such as Head Start) at closing the achievement gap between White students and non-Asian students of color, the gap remains. If we were really invested as a society in closing the gap, the benefits would likely extend far beyond the undeniable gains for students of color. Lynch and Oakford speculated:

If the United States were able to close the educational achievement gaps between native-born White children and Black and Latino/a children, the U.S. economy would be 5.8 percent—or nearly \$2.3 trillion—larger in 2050 ... thus, even very large public investments that close achievement gaps would pay for themselves in the form of economic growth by 2050. (p. 2)

A second area in which educational disparities between White students and students of color manifest is in the disproportionate identification of students for special education. The overrepresentation of students of color, especially Black children (Sullivan & Bal, 2013), in special education has consistently been reported. The overrepresentation of children of color in special education has been highlighted for high-incidence disabilities, such as SLDs (Harry & Klingner, 2014), and low-incidence disabilities, such as emotional disturbance (Sullivan, 2017). Disproportionality is also evident in the underrepresentation of certain groups in special education. For example, Sullivan and Bal (2013) reported that Latinx students were more likely to be underidentified for special education.

The third area in which there are clear educational disparities between White students and students of color is in punitive, exclusionary school discipline. Overwhelmingly, students of color are punished in schools at higher rates and more harshly than White students. In the 2013–2014 school year, 13.7% of all Black students (and 17.6% of Black male students) received an out-of-school suspension, which was more than any other racial or ethnic group represented in the study. The next highest rate was for American Indian students at 6.7% (de Brey et al., 2019). Disturbingly, Black preschool boys are also 3.6 times more likely to receive one or more out-of-school suspensions as White preschool children (U.S. Department of Education, 2016a). Recently, there has been attention on the disparity in discipline that Black *female* students experience compared to White students and male students of color. Crenshaw, Ocen, and Nanda (2015) have shed light on the gendered consequences of punitive and exclusionary school disciplinary actions affecting female students of color, particularly Black girls. In *Black Girls Matter: Pushed Out, Overpoliced, and Underprotected*, Crenshaw and

colleagues reported that during the 2011–2012 school year, Black girls were suspended *six* times more often than White girls (Black males were suspended three times as often as White males), and that 12% of Black females were subjected to exclusionary suspensions in comparison to 2% of White females. Crenshaw and colleagues conjecture that one reason Black girls are victims of harsher disciplinary sanctions than any other group is because of educators’ implicit biases and stereotyping that interprets typical behavior as actually “unruly, loud, and unmanageable” (p. 26).

English Learners

Students whose native language is a language other than English, and who come from an environment where a language other than English is dominant, are referred to as ELs or dual-language learners. It is important to note that 85% of PreK–5th-grade EL students and 62% of 6th–12th-grade ELs are native-born citizens of the United States (Zong & Batalova, 2015). ELs are a very diverse and heterogeneous group, with a myriad of unique academic and social–emotional needs.

In 2017, 10.1% of the public school students were ELs, which was an increase from 2000 when 8.1% were ELs (Hussar et al., 2020). The percentages of EL students by state varies widely, with California the highest at 19.2% and West Virginia the lowest at 0.8%. The percentage of ELs increased between 2000 and 2017 in all but seven states. There are also more ELs represented in the lower grades (e.g., 15.9% of kindergarteners) as compared to the upper grades (4.6% of high school seniors). Most ELs speak Spanish as their native language (3.7 million in 2017, making up 75% of EL students) followed by Arabic, Chinese, and Vietnamese. The vast majority of ELs are Latinx (76.5% in 2017), followed by Asian (10.7%) students. Furthermore, 14.3% of the EL population in 2015 received special education services under the IDEIA (Husser et al., 2020).

Culturally responsive school psychologists understand the general process of acquiring English as a second language, which we describe briefly,

drawing from the most widely cited second-language model in the literature, which is based on the work of Cummins (2008). Cummins described two key stages in the second-language acquisition process: basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP). BICS is sometimes referred to as conversational language and takes 2–3 years to acquire. ELs with BICS seem to have mastered English, and it is important to take into account the fact that to succeed in school, they also need CALP. CALP is the language related to academic subject areas and is necessary to succeed in school. The problem is that to be successful, ELs must not only master conversational language, they must also master academic language, which experts assert takes a full 7–10 years. In addition to the obvious difficulties with academic learning, many ELs are also dealing with a host of stressors related to acculturation, including acculturative stress. Acculturative stress arises from complicated factors in acculturation, including learning new cultural rules and expectations, experiencing prejudice, discrimination, lower self-esteem, and feeling conflicted about wanting to maintain the old culture while also integrating aspects of the new culture (Berry, 2006; Birman & Simon, 2014; Suárez-Orozco, Suárez-Orozco, & Todorova, 2008). ELs face discrimination in their communities and in the education system that must be considered when working with them and their families in the school system (Roberge, 2002).

Immigrants and Newcomer Students

Students attending schools in the United States who were not born in the United States are often referred to as immigrants; when they have been in the United States for only a few years, they are often referred to as newcomers. Approximately 2.4 million school-age newcomers live in the United States. Immigrants are people who are born in one country but choose to leave *from* their country or exit their homeland (i.e., emigrate) to enter *into* another country (i.e., immigrate) to establish residency in the new country. There are more immigrants living in the United States than ever

before (44.8 million in 2018; see <https://www.pewresearch.org/topic/immigration-migration/> for the most current statistics). Since 2000, the immigrant population increased by 12.6 million people. The newcomer population in the United States nearly doubled between 1990 and 2013, from 7.0 to 13.1% (Pew Research Center, 2015). Many of these newcomers are students matriculating in K–12 school programs across the country. In 2015, almost 23.0% of all public school students came from an immigrant household (Camarota, Griffith, & Zeigler, 2017).

Approximately 10.7 million immigrants are unauthorized (down from a high of 12.2 million in 2007), having entered the United States without needed immigration documents or those who had temporary legal stays that have since expired (Passel & Cohn, 2018). When newcomers cannot or do not obtain legal permission to reside in the United States, they are often identified as being undocumented because they do not have the legal documentation to establish residency. Nguyen (2017) defines undocumented students as “school-aged immigrants who entered the United States without inspection or overstayed their visas and are present in the United States with or without their parents” (p. 1). About 5.5 million of the undocumented immigrants in the United States come from Mexico, followed by Central America, Asia, South America, Europe or Canada, the Caribbean, Africa, and the Middle East (Passel & Cohn, 2018). People immigrate for many reasons, including escaping political unrest and/or persecution based on religion, ethnicity, and so on; seeking greater economic opportunities, including increased upward social/economic mobility; and reunification with family—although the most common overarching reason is immigration for better living conditions (Suárez-Orozco, 2015; Suárez-Orozco & Suárez-Orozco, 2001). Newcomers who have been displaced or forced to leave their home country to reside in a different country in order to survive war or persecution (e.g., due to their race, nationality, religion) are called refugees. In the United States, there are avenues for refugees seeking asylum to reside in the United States legally.

Many newcomers who are also refugees experience a history of traumatic experiences that often have deleterious consequences to acclimating to a new school and new way of life (Sibley & Brabeck, 2017).

The legal ramifications of being undocumented include being returned to the home country (i.e., deported). The fear of deportation can be particularly traumatic for youth who came to the United States with their families at an early age and have no connections to their “home” country. In an attempt to provide some legal standing for these youth, the Development, Relief, and Education for Alien Minors (DREAM) Act has been introduced in Congress several times (but not yet passed), with the first time being in 2001 and the latest (at the time of this writing) in early 2019. This act would grant undocumented youth who entered the United States under the age of 18 who meet certain criteria (e.g., currently in school or have graduated with a high school or general equivalency diploma [GED]; not convicted of serious or multiple crimes) conditional permanent residency (which includes a work authorization) as a pathway to lawful permanent residence. (After 5 years as a lawful permanent resident, individuals are then able to apply for citizenship.)

In part due to the DREAM Act not being passed, in 2012, the Obama administration established the Deferred Action for Childhood Arrivals (DACA), a program giving eligible undocumented students who arrived in the United States prior to age 16 a temporary but renewable 2-year delay (i.e., deferred action) from deportation (Passel & Lopez, 2012). In 2017, under the Trump administration, DACA was rescinded with a plan to phase out DACA. Following this, there were a number of legal challenges to this rescinding of DACA. In June 2020, the U.S. Supreme Court ruled in favor of the DACA program and against the president’s order rescinding DACA. This ruling should mean that individuals who already have DACA status can apply to renew their status (which they were permitted to do prior to this ruling), and that new applications from those wanting to apply for DACA status for the first time should be accepted (which was not permitted following 2017). However, the Trump administration stated in July 2020 that

initial DACA applications would be rejected, but this decision was later rescinded by the Biden administration, which affirmed its commitment to preserving and fortifying DACA in January 2021 (<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/preserving-and-fortifying-deferred-action-for-childhood-arrivals-daca/>). Given the back-and-forth on the issue, it is important to note that court rulings and current administrative rules do not prevent future attempts to rescind DACA via executive order, given that DACA was established by executive order and not by Congress (Immigrant Legal Resource Center, 2020).

Prior to the DREAM Act and DACA, in 1982, the U.S. Supreme Court ruled that all children—regardless of citizenship or immigration status—are entitled to public K–12 education (*Plyler v. Doe*, 1982). Nevertheless, anti-immigration bills and other efforts to limit educational access to undocumented students have been documented since *Plyler*. For example, Arizona and Alabama passed state legislation “requiring school districts to track and report undocumented students to determine the financial impact of funding their education” (Nguyen, 2017, p. 3).

LGBTQ Students

Culturally responsive school psychologists are also equipped to address the needs of youth who identify as LGBTQ (i.e., gender- and sexual-minority youth). *LGBTQ* is an inclusive term often used to denote the spectrum of sexuality and gender identity. This term includes individuals with same-sex attraction (gay/lesbian) as well as those whose gender identity differs from their sex assigned at birth (transgender). It also includes individuals who are questioning or who simply do not identify as male or female (e.g., those who identify as nonbinary). Nonbinary individuals are not a uniform group and include, for example, those who identify as gender fluid as well as those who identify as agender.

LGBTQ youth are at a disproportionate risk for deleterious health, social, and educational outcomes. According to data from the 2019 Youth Risk Behavior Survey (YRBS; Johns et al., 2020), 32.0% of lesbian, gay, and bisexual students reported being bullied on school property (compared to 17.1% of heterosexual students) and 26.6% were bullied online (compared to 14.1% of heterosexual students). Students who identify as LGBTQ are also at increased risk for serious mental health concerns, including a heightened risk of suicidal ideation and suicide attempts. On the 2019 YRBS, almost one-half (46.8%) of lesbian, gay, and bisexual youth had seriously considered suicide (compared to 14.5% of heterosexual students) and 23.4% of lesbian, gay, and bisexual youth had attempted suicide at least once in the prior year (compared to 6.4% of heterosexual youth). It is important to note that school climate can play an important role in outcomes for LGBTQ youth and that with increased supports in schools, including affirming and supportive school personnel, victimization of LGBTQ students can be decreased and positive outcomes increased (Kosciw, Palmer, Kull, & Greytak, 2013). Espelage (2016) urged the field of school psychology to conduct more research in the area of sexual orientation and gender identity in the schools.

Multicultural Skills

In an article describing the challenges and opportunities of training culturally responsive school psychologists, Lopez and Bursztyn (2013) conceptualized a broad multicultural training framework and considered trainers' responsibility to prepare school psychologists to work with students and families from *all* backgrounds. We agree and cannot underestimate the importance of training the next generation of school psychologists to be culturally responsive; to fail in this area fails all children. To move culturally responsive preparation of school psychologists forward, it is essential to discuss the specific multicultural skills that school psychology trainees and practitioners should cultivate. To this end, Lopez and Bursztyn do a commendable job of describing how each of the 10 domains of school psychology practice—the essential skills of school psychology practitioners—in NASP's Model for Comprehensive and Integrated School Psychological Services (i.e., NASP Practice Model) can be understood using a multicultural framework. When practiced within a multicultural framework as described by Lopez and Bursztyn, these domains of practice become some of the most important multicultural skills in the day-to-day practices of culturally responsive school psychologists. In the section that follows, we draw heavily from Lopez and Bursztyn's work to describe these specific domains of practice within a multicultural lens.

Within the NASP Practice Model, 10 domains of school psychology professional practice are divided across three broad areas: (1) practices that permeate all aspects of service delivery; (2) direct and indirect services for students, families, and schools; and (3) foundations of school psychological service delivery. First, practices that permeate all aspects of service delivery include (1) data-based decision making and accountability and (2) consultation and collaboration. School psychologists are expected to use valid and reliable assessment techniques to assess progress toward academic

and behavioral goals. Lopez and Bursztyn (2013) underscore the limitations of standardized assessments for culturally and linguistically diverse (CLD) students. Importantly, they remind us that all standardized tests fail to reflect how exposure to the assessment tasks negatively impact results. For CLD students, poor results on standardized assessments should not be equated with a deficit—indeed, culturally responsive school psychologists should interpret results (and help other school personnel interpret results) based on how much exposure to the dominant (i.e., tested) language and culture the student has had. To illustrate, it is inappropriate to assess in English a newcomer student who has had no exposure to English. If the student participates in a mandatory schoolwide screening program (e.g., in Tier 1 within a multi-tiered systems of support [MTSS] model) for English prereading skills, the results must be interpreted in light of the lack of exposure to the English language.

School psychologists should also receive training in equitable, ethical, and appropriate ways to evaluate and identify EL students for special education services. Lopez and Bursztyn (2013) note that school psychologists must also become sensitive and responsive to students' and families' cultural and linguistic differences, particularly as they relate to the consultation process. For example, when consulting with teachers about their concerns of a newcomer's withdrawn and quiet behavior in the classroom, the school psychologist should be able to discuss the concerns in the context of both acculturative stress and the silent period during the second-language acquisition process. School psychologists should work collaboratively with school staff to foster warm relationships with and welcoming school environments for parents and families. And much like we have emphasized in this chapter, Lopez and Bursztyn underscore the importance of honing one's own self-understanding and multicultural competence as a necessary, but insufficient, aspect of gaining multicultural skills and becoming culturally responsive practitioners.

Second, within the area of direct and indirect services for students, families, and schools, school psychologists are expected to display

multicultural competence in two specific domains of practice or skills related to student-level services: (1) academic interventions and instructional supports and (2) mental and behavioral health services and interventions. School psychologists must become familiar with the ways that assessment information is used to develop and implement evidence-based instructional strategies. For example, school psychologists should be knowledgeable about which interventions have research support (e.g., include students in the sample who are similar to the student/s to receive the intervention) and are appropriate for use with particular students. Similarly, school psychologists should become familiar with evidence-based strategies that support students' behavioral and emotional functioning. (We discuss academic and mental health interventions further in [Chapters 9](#) and [10](#), respectively.) Specifically, culturally responsive school psychologists understand ways to maximize student success and are knowledgeable of programs aimed at supporting diverse students—academically, behaviorally, and social–emotionally.

Regarding systems-level services, school psychologists are expected to understand (1) schoolwide practices to promote learning; (2) services to promote safe and supportive schools; and (3) family, school, and community collaboration. Lopez and Bursztyn (2013) expect culturally responsive school psychologists to understand how systems-level services, including those within a MTSS, promote and maintain effective learning and positive mental health. School psychologists should also have expertise in identifying and utilizing evidence-based strategies for effective crisis response. For example, in an area that has seen an influx of refugees, school psychologists should be prepared in the prevention and management of crises related to trauma and stress from the immigration process. Lopez and Bursztyn recommend that culturally responsive school psychologists employ an ecological perspective to more holistically inform prevention and crisis intervention, and to better understand children's experiences. They further challenge school psychologists to examine their own biases about their views of children who may not fit the norm of the children with whom they

are more accustomed to working. In their work with families, culturally responsive school psychologists adopt a posture of cultural reciprocity (Harry, Kalyanpur, & Day, 1999), where the school psychologist takes into account a family's cultural values and assumptions, and in a spirit of respect, works with the families to adapt and interpret school recommendations to fit the family's cultural and value systems.

Finally, within the NASP Practice Model there are three broad foundations of school psychological service delivery that permeate all skills and all aspects of the work school psychologists do (in and out of schools): (1) equitable practices for diverse student populations; (2) research and evidence-based practice; and (3) legal, ethical, and professional practice. Lopez and Bursztyn (2013) note that the need for school psychologists to acquire knowledge of individual differences is delineated specifically in the diversity standard. In addition, they note that the standard emphasizes that respect for diversity and social justice are foundations of all aspects of service delivery. In all aspects of their work, and given the broad diversity of languages represented by EL students, school psychologists must be willing and prepared to work with translators (i.e., for oral language) and interpreters (i.e., for written language). In their research, school psychologists recognize heterogeneity within and among groups, and they consider participants' self-identification labels (e.g., Black vs. African American vs. Caribbean). The training standard about law, ethics, and professional practice assumes respect for human diversity and adoption of social justice at the center of professional identity and practice.

Promoting Cultural Responsiveness in School Psychology

In this chapter, we addressed a number of issues related to becoming culturally responsive school psychologists. We started the chapter by describing recent statistics demonstrating that students of color and ELs are increasing rapidly in the school-age population. Despite the growing diversity in schools, teachers and school psychologists remain overwhelmingly White. We also discussed the importance of becoming culturally responsive if we are going to serve students appropriately in the 21st century. To become culturally responsive, we urged readers to be willing to be self-reflective and open to challenging beliefs or assumptions that may not be congruent with developing multicultural awareness, multicultural knowledge, and multicultural skills. In this section, we close with thoughts about three ways in which we can begin to promote diversity and awareness of the multicultural issues that impact the work of all school psychologists. We believe that there are three specific ways to become more culturally responsive as a field: (1) diversify school psychology, (2) improve preservice multicultural training, and (3) become social justice advocates. In the following section, we briefly touch on each of these areas.

Diversify School Psychology

Over half of youth in schools in the 21st century are students of color, yet the field of school psychology remains predominantly White. Thus, the field must become more diversified. To this end, we must actively recruit racially, ethnically, and linguistically diverse school psychologists (Proctor, Simpson, Levin, & Hackimer, 2014), and in particular we must aggressively recruit bilingual school psychologists to meet the demands of the growing EL population (Frisby, 2015). In a study by Proctor and Romano (2016), the

authors reviewed articles published in the two decades between 1994 and 2014 regarding practices focused on recruitment of racial and ethnic minorities to school psychology. They found only 10 studies focused on minority recruitment strategies. Proctor and Romano assert that “programs should actively recruit minorities, particularly from predominantly minority serving undergraduate institutions, and provide them with financial support” (p. 324). In support of these findings and in acknowledgment that a more diverse workforce in school psychology starts with the active recruitment of a more diverse graduate student population, NASP (2016) published a position statement, *Recruitment and Retention of Culturally and Linguistically Diverse School Psychologists in Graduate Education Programs*, where specific strategies are discussed to promote recruitment and retention of students of color in school psychology programs. Examples include (1) engaging in targeted recruitment through minority-serving institutions of higher education, (2) adopting flexible admissions criteria, (3) evaluating recruitment and admissions processes to ensure they are inclusive, (4) integrating diversity into all aspects of training, (5) ensuring ongoing peer and faculty mentoring and access to professional networks, and (6) promoting awareness and prevention of racial microaggressions. With the increase of diverse graduate student populations, training programs can also work to encourage these graduates to move into faculty positions, thus increasing the number of faculty trainers in school psychology from diverse backgrounds, which may in turn lead to increased recruitment/retention of diverse students.

As part of the efforts to interest diverse students in the field of school psychology from early on in their schooling, NASP recently launched the NASP Exposure Project [NASP-EP; see [www.nasponline.org/resources-and-publications/resources/diversity/cultural-competence/multicultural-affairs-committee/nasp-exposure-project-\(nasp-ep\)](http://www.nasponline.org/resources-and-publications/resources/diversity/cultural-competence/multicultural-affairs-committee/nasp-exposure-project-(nasp-ep))]. The purpose of NASP-EP is to expose high school students and undergraduate students, especially those of diverse backgrounds, to school psychology. The project has readily available

prepared materials for school psychology graduate students, faculty, and practitioners to use to present to students in their area.

Improve Preservice Multicultural Training

Improving multicultural training in school psychology graduate programs is one of the surefire ways of preparing future school psychologists for serving the needs of culturally and linguistically diverse students. Developing specialty tracks in school psychology programs is one way to do this (Proctor & Truscott, 2012), but multicultural specialties may not be realistic given faculty shortages in school psychology and the need for programs to meet the demands of accrediting bodies. There are other ways to improve preservice multicultural training. Proctor and Simpson (2016) reflected on the question of exactly “How should programs implement multiculturalism?” (p. 253). Drawing from findings in the available literature on ways to improve multicultural training in psychology programs, Proctor and Simpson provide recommendations across five areas: (1) recruit and retain diverse school psychology students, (2) engage in faculty professional development, (3) integrate multicultural content and develop students’ knowledge about diverse groups, (4) translate multicultural knowledge into service delivery, and (5) evaluate students’ multicultural knowledge and skills.

We suggest that there are several additional ways to improve preservice multicultural training. First, practicum opportunities must include opportunities to work with diverse students. In some programs across the country that are more homogeneous, programs will have to work particularly hard to make this possible. For example, programs could facilitate travel to other parts of the state where more diverse students are located by facilitating carpooling and reimbursing students for mileage/gas for traveling. Research shows that preservice training, where students have racially and ethnically diverse clients in practicum courses, increases multicultural competency (e.g., Sagun, 2014). Furthermore, for school

psychology faculty who want to begin today to integrate social justice in their courses, Shriberg (2012) made four recommendations: (1) engage in dialogue related to why this content is important; (2) develop a mission statement and core training goals related to social justice; (3) embed meaningful experiences that help to make “social justice” a real thing, not simply a theoretical construct or aspiration; and (4) provide a safe and supportive forum for eliciting voice and constructive dialogue.

Advocate for Social Justice

An advocate is a person who works for and openly supports a cause. We believe school psychologists should become outspoken advocates for social justice in the schools, working to promote and support equity, parity, and educational excellence for all youth, regardless of their minoritized or marginalized status/es. In April 2017, the NASP board of directors adopted a specific definition of social justice (www.nasponline.org/social-justice):

Social justice is both a process and a goal that requires action. School psychologists work to ensure the protection of the educational rights, opportunities, and well-being of all children, especially those whose voices have been muted, identities obscured, or needs ignored. Social justice requires promoting non-discriminatory practices and the empowerment of families and communities. School psychologists enact social justice through culturally-responsive professional practice and advocacy to create schools, communities, and systems that ensure equity and fairness for all children and youth.

Undoubtedly, school psychologists in the United States today work within a context where discrimination and intolerance (e.g., racism, classism, homophobia) abound (Shriberg, Song, Miranda, & Radliff, 2013). Social justice focuses on cultivating an understanding of the myriad social, political, systemic, and institutional influences upon the human experience and involves taking action to create change on behalf of those who are minoritized or marginalized. To help further illustrate some of the principles of social justice, Malone and Proctor (2019) describe and give examples of social justice across three dimensions: distributive, procedural, and

relational. All three are important to consider as school psychologists are working toward and advocating for social justice. *Distributive* justice refers to resource allocation and whether this is accomplished in an equitable manner. For example, looking at access to programs that support learning and mental health—Is there equal access across different groups of students or do some groups have more access to specialized programs? *Procedural* justice refers to how decisions are made. Just because there may be similar programs available to all students does not mean that the decision-making process for how students are selected for those programs is equitable and unbiased. Finally, the *relational* component of justice refers to the treatment people receive when they are in these settings. For example, even though males and females may be equitably chosen to participate in a program does not mean they are given the same opportunities once they are in the program (e.g., males may be chosen for leadership positions more often). All of these components are important to consider when working to address social injustices.

Social justice has been a theme of several special series within school psychology journals, including (1) *School Psychology Review* (Power, 2008), (2) *Journal of Educational and Psychological Consultation* (Shriberg & Fenning, 2009), and (3) *School Psychology Forum* (SPF; Proctor, 2016). In a special journal issue of SPF in 2016, scholars in school psychology contributed conceptual and empirical articles discussing ways school psychologists can (and should) act as advocates for racial and social justice. There have also been several other recent publications that provide guidelines for how school psychologists can integrate social justice work within the contemporary practice of school psychology. For example, Fallon, Veiga, and Sugai (2021) propose several ways to strengthen MTSS for behavior to promote racial equity. McDaniel, Cohen, LaSalle, and Nesse (2021) provide a blueprint for how schools might leverage positive behavioral interventions and supports to improve discipline equity among racially and ethnically diverse students. And Sullivan and colleagues (2021) provide several recommendations for reorienting the roles and activities of

school psychologists toward addressing the health disparities experienced by minoritized and marginalized populations, especially in the wake of the COVID-19 pandemic. We encourage students, trainers, and practitioners alike to read these important works and take action on these guidelines toward enhancing equity work within your spheres of influence. Attention to social justice in school psychology underscores the importance of advocating for all students and, we believe, school psychologists can and should be the ones to spearhead social justice efforts in today's 21st-century schools.

Discussion Questions and Activities

1. Read Peggy McIntosh's (1989) monograph "White Privilege: Unpacking the Invisible Knapsack": <https://nationalseedproject.org/Key-SEED-Texts/white-privilege-unpacking-the-invisible-knapsack>. What did you think of the essay? Discuss your thoughts and questions with a trusted colleague or supervisor.
2. As a follow-up to the previous exercise, take some time to identify areas in which you have unearned privileges. They may be due to race, educational status, financial status, and so on. We all have some degree of unearned privileges and the point here is to begin recognizing them. Take a few minutes every day for 1 week to write them down. What did you learn about yourself? What did you learn about how others interact with you?
3. Take and score your results on the Multicultural Awareness, Knowledge, and Skills Survey (MAKSS), which is a tool that measures an individual's multicultural counseling awareness, knowledge, and skills: https://drkdr counselingcourses.weebly.com/uploads/4/9/6/6/4966511/the_makss_instrument.pdf. What did you learn about yourself from the results? In what specific areas might you make improvements?
4. Take an implicit bias test. Several are available at <https://implicit.harvard.edu/implicit/education.html>. Reflect on your score and think about a time when you had an implicit bias about a person or group of people that was proven not to be correct. What can you do to be more aware of your implicit biases as you progress through your graduate coursework and practicum experiences?

¹ In this volume, we adopt the phrase *people (or students) of color* to refer to non-White racial- and ethnic-minoritized groups (Vidal-Ortiz, 2008).

² The term *Latinx* has come into use recently. In Spanish and Portuguese, nouns are gendered and Latino/a is used to denote the male and female forms of people, respectively, from Latin descent. Latinx is now commonly used as a more gender-neutral and all-inclusive term.

³ There are numerous terms used interchangeably to refer to students whose native language is not English and who are acquiring proficiency in the English language including but not limited to, *English learner*, *dual language learner*, and *limited English proficient*. The most common term used is *English language learner* (Linse, 2013). Most recently, researchers and the U.S. Department of Education have used the term *English learners*, which is the term we adopt for use in this book.

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Chapter 5



Becoming a School Psychologist

Training and Credentialing Issues

The previous chapters in this book addressed general characteristics and background regarding the field of school psychology. With that background as a foundation, we now move into reviewing the process of *becoming a school psychologist*. This chapter addresses a variety of issues related to the process of professional entry into the field. In this chapter, we explore how individuals typically make the decision to become school psychologists. An extensive discussion of school psychology training programs and of the characteristics of students and faculty in these programs makes up a substantial portion of the chapter. We also explore a variety of issues related to the training of future psychologists and the regulation of the programs that provide the training. An important and unique aspect of preparation to enter the field—practicum and internship training—is detailed, along with an exploration of the considerations involved in selecting and finding an appropriate internship. The various processes for credentialing school psychologists are also discussed, and the chapter concludes with a brief discussion of continuing professional development expectations and professional networking and other opportunities within the field.

Becoming a School Psychologist

Collectively, we have interviewed or fielded inquiries from hundreds of individuals—maybe more than that—who are interested in learning more about the field of school psychology, are seeking admission to graduate programs in the field, or are trying to find answers to questions about the roles and functions of school psychologists. Most of these interactions have been with prospective graduate students who are considering careers as school psychologists. In some cases, these individuals are well informed about the field and have a good understanding of what a school psychologist is and how one becomes a member of the profession. Some have even shadowed a school psychologist in the field and they have no doubt that they want to become school psychologists themselves. We also find many misconceptions about both what a school psychologist is/does and how to become one. These experiences, as well as our own experiences that led us personally to the field of school psychology, have caused us to reflect on the paths that lead to our field. Although it is true that everyone's path is somewhat unique, we have found many similarities on the road to becoming a school psychologist.

One typical commonality among individuals who seek entry into the field of school psychology is a strong interest in both psychology and education, as the field is a unique hybrid of both disciplines. Our experience has been that, increasingly, individuals who apply for admission to graduate programs in school psychology have earned undergraduate degrees in psychology. We estimate that approximately 90% of applicants to our respective training programs in recent years have their undergraduate degrees in psychology, with the remaining 10% in the fields of education, sociology or social work, or a variety of other disciplines. A small minority of applicants to our programs in recent years have previously earned graduate degrees (usually master's level) in psychology, education, social

work, or counseling. Some individuals who enter the field have had previous professional experience in one of these fields or in another area. However, holding graduate degrees and having prior extensive professional experience are not necessarily the norm for entering the field. Although we have no hard evidence to prove this point, our perception is that the “typical” newcomers to the field of school psychology in recent years are ones who enter graduate school in their early to mid-20s, having earned undergraduate degrees in psychology within the past year or two.

The motivations of individuals who enter the field of school psychology are varied and diverse, but there are some common threads tying them together. Primarily, most aspiring school psychologists have a strong desire to provide support to children and their families and to assist them as they struggle with the challenges of the educational experience. With this general motivation almost always comes a particular interest and desire to support and assist children who are struggling academically or behaviorally or who are otherwise at risk for negative educational and life outcomes. In other words, those attracted to school psychology tend to have a strong humanitarian or service orientation, coupled with a strong sense of social justice and responsibility, and a commitment to and interest in public education. Beyond these general characteristics, there are certainly some differences among those who desire to enter the profession. Some move into the field with a strong desire to make a major impact in improving and changing educational and social systems; some are attracted to the field because of the continuing strong job market, stable employment situations, and their perceptions of reasonable compensation and benefit packages. Almost all school psychologists enjoy the generally regular work hours, which typically are similar to a school day or business day. Those who work in public school settings often have 9- or 10-month employment contracts, with additional vacation and holiday time off during the school year.

Regardless of the varied backgrounds, aspirations, and motivations of individuals who enter the field, the road to the profession begins with acceptance to a graduate training program in school psychology. The 3- to 6-

year graduate school experience provides the foundation for working as a school psychologist and is an important socializing factor in developing an initial model of practice and a worldview of the field. Thus, graduate training programs in the field, as well as the faculty who staff them, are of particular interest in the process of becoming a school psychologist and are the focus of the next section.

School Psychology Training Programs, Students, and Faculty

Without successfully completing a graduate training program in school psychology (or a respecialization program) it is typically not possible to become a school psychologist. The training programs not only function as the initial point of entry into the profession but also serve the essential role of professional socialization into the field, as well as transmission of values, competencies, and practices for new professionals. It is the training programs that have responsibility for implementing the training standards of the national professional organizations (NASP and APA) and for endorsing graduates of the programs for licensure and certification from state departments of education and from state psychology licensing boards. Given the critical role that school psychology training programs play in the continued development and well-being of the field, we cover in detail various aspects of graduate training programs and the faculty and graduate students who are connected to these programs. In addition, we address some of the emerging issues and trends impacting training programs.

School Psychology Training Programs

Characteristics

It is somewhat difficult to obtain a highly accurate picture of school psychology training programs across North America because two separate national organizations (NASP and APA) accredit or approve programs in the United States while the Canadian Psychological Association (CPA) accredits programs in Canada. In addition, many programs are not accredited and thus do not appear on lists of approved programs, nor do they have reporting responsibilities to the national organizations. There also seems to be a moderate but constant flux in training programs, with a few

new programs emerging each year and some programs becoming inactive. Furthermore, it is complicated to generalize what we do know about training programs and to make inferences about the students and faculty within them. That said, with the information currently available, as well as previous detailed efforts to describe the characteristics of school psychology training programs, it is possible to at least make some generalizations about training programs, their host institutions, and the faculty and students who are involved in these programs.

The most comprehensive current list of training programs in the United States is posted on the NASP website (<http://apps.nasponline.org/standards-and-certification/graduate-education>) and includes over 250 institutions of higher education that offer graduate programs in school psychology. Of these institutions, approximately 200 have NASP-approved or NASP-accredited programs at the specialist level, doctoral level, or both (see www.nasponline.org/standards-and-certification/graduate-program-approval-and-accreditation for a current list of NASP-approved/-accredited training programs). There are over 65 active doctoral programs in school psychology with APA accreditation (www.apa.org/ed/accreditation/programs), plus additional programs (12 at the time of this writing) that are APA accredited as combined programs with school psychology as one of the training areas in addition to clinical and/or counseling psychology. The CPA lists four accredited doctoral programs in school psychology (www.cpa.ca/accreditation/CPAaccreditedprograms). Approximately 25% of institutions have both doctoral- and specialist-level training programs.

The majority of the current training programs are at the specialist level. While many of these programs grant specialist degrees, such as the educational specialist (EdS) and specialist in school psychology (SSP), others may grant a master's degree and/or certification. Regardless of the degree granted, these programs are considered to be specialist level. The number of graduates produced by these programs each year is likely to be even more skewed in the direction of nondoctoral programs because specialist programs tend to be larger than doctoral programs in terms of the

number of new students accepted each year. Based on data from the 2018–2019 school year, there were an estimated 2,562 new students in specialist-level programs and 566 in doctoral-level programs (Gadke, Valley-Gray, & Rossen, 2021).

A review of the current lists of approved/accredited training programs from NASP and APA indicates that the large majority of school psychology training programs are found at public rather than private institutions of higher education. Within these institutions, about 75% of the training programs are located within colleges of education (often within departments of educational psychology), whereas about 25% are located within colleges of arts and sciences in departments of psychology. With a few exceptions, doctoral programs are more likely to be found at national research universities than at regional universities or liberal arts colleges, where specialist-level programs are the norm. School psychology programs at all levels exist across the United States and Canada, but they are not necessarily distributed evenly by region. For example, the Midwest and East Coast regions of the United States have a large number of training programs, whereas there are fewer training programs in the western United States (excluding California) and a very small number of programs in Canada. Only three states (Alaska, Hawaii, and Wyoming) have no school psychology training programs, although a number of states have only one institution that has an active training program (several of the institutions in these states do have both specialist- and doctoral-level programs). [Table 5.1](#) provides a comprehensive list of the specialist-level school psychology training programs in the United States and Canada; [Table 5.2](#) provides a comprehensive list of doctoral training programs. We developed these tables based on our review of NASP- and APA-accredited program listings (as referenced above) and through Internet searches for additional training programs. We recognize that there is a continuous flux in program status over time and that some programs in our lists in [Tables 5.1](#) and [5.2](#) may have changed status and that new programs may have emerged that do not appear on our list. Thus, for students searching for programs, we recommend

confirming program status through reviews of the NASP and APA websites as well as program-specific websites.

TABLE 5.1. Listing of Active Specialist-Level School Psychology Training Programs in the United States and Canada

University	Terminal degree ^a	NASP approval/accreditation ^b
<u>Alabama</u>		
University of Alabama	EdS	Approved
<u>Arizona</u>		
Northern Arizona University	EdS	Approved
University of Arizona	EdS	Approved
<u>Arkansas</u>		
Arkansas State University	EdS	Approved
University of Central Arkansas	MS	Approved
<u>California</u>		
Alliant International University	MA	
Azusa Pacific University	EdS	Approved
Brandman University	EdS	
California Baptist University	MS	
California State University–Chico	MA	Approved
California State University–East Bay	MS	Approved
California State University–Fresno	EdS	Approved
California State University–Long Beach	EdS	Approved
California State University–Los Angeles	MS	Approved

University	Terminal degree ^a	NASP approval/accreditation ^b
California State University– Monterey Bay	MA	Candidacy status
California State University– Northridge	MS	Approved
California State University– Sacramento	EdS	Approved
California State University–San Bernardino	EdS	
Chapman University	EdS	Approved
Fresno Pacific University	MA	
Humboldt State University	MA	
La Sierra University	EdS	
Loyola Marymount University	EdS	Approved
National University	MS	
Philips Graduate University	MA	
Saint Mary’s College of California	MA	
San Diego State University	EdS	Approved
San Francisco State University	MS	
University of LaVerne	MS	
University of the Pacific	EdS	Approved
<u>Colorado</u>		
University of Denver	EdS	Approved
University of Northern Colorado	EdS	Approved
<u>Connecticut</u>		
Fairfield University	MA/SYC	Approved
Southern Connecticut State University	MS/SYC	Approved
University of Connecticut	MA/SYC	Approved
University of Hartford	MS/SYC	Approved

University	Terminal degree ^a	NASP approval/accreditation ^b
<u>Delaware</u>		
University of Delaware	EdS	Approved
<u>District of Columbia</u>		
Gallaudet University	PsyS	Approved
Howard University	MEd	
<u>Florida</u>		
Argosy University/Sarasota	EdS	
Barry University	SSP	Approved
Florida International University	EdS	Approved
Florida State University	EdS	Approved
Nova Southeastern University	PsyS	Approved
University of Central Florida	EdS	Approved
University of Florida	EdS	Approved
University of South Florida	EdS	Approved
<u>Georgia</u>		
Georgia Southern University	EdS	Approved
Georgia State University	EdS	
<u>Idaho</u>		
Idaho State University	EdS	Approved
<u>Illinois</u>		
Chicago School of Professional Psychology	EdS	Approved
Eastern Illinois University	SSP	Approved
Governors State University	EdS	
Illinois State University	SSP	Approved
Loyola University of Chicago	EdS	Approved
National–Louis University	EdS	Approved
Northern Illinois University	MA	Approved

University	Terminal degree ^a	NASP approval/accreditation ^b
Southern Illinois University–Edwardsville	SSP	Approved
Western Illinois University	SSP	Approved
<u>Indiana</u>		
Ball State University	EdS	Approved
Indiana State University	EdS	Approved
Indiana University–Bloomington	EdS	Approved
Valparaiso University	EdS	Approved
<u>Iowa</u>		
University of Northern Iowa	EdS	Approved
<u>Kansas</u>		
Emporia State University	EdS	Approved
Fort Hays University	EdS	
Pittsburg State University	EdS	
University of Kansas	EdS	Approved
Wichita State University	EdS	Approved
<u>Kentucky</u>		
Murray State University	EdS	
University of Kentucky	EdS	Approved
Western Kentucky University	EdS	Approved
<u>Louisiana</u>		
Louisiana State University–Shreveport	SSP	Approved
Nicholls State University	SSP	Approved
<u>Maine</u>		
University of Southern Maine	MS	
<u>Maryland</u>		

University	Terminal degree ^a	NASP approval/accreditation ^b
Bowie State University	MA/CAS	Approved
Towson University	MA/CAS	Approved
<u>Massachusetts</u>		
Northeastern University	MS/CAGS	Approved
Tufts University	EdS	Approved
University of Massachusetts–Amherst	EdS	Approved
University of Massachusetts–Boston	EdS	Approved
Williams James College	MA/CAGS	Approved
Worcester State University	EdS	Approved
<u>Michigan</u>		
Andrews University	EdS	Approved
Central Michigan University	MA/SPsyS	Approved
Grand Valley State University	PsyS	Approved
Michigan State University	EdS	Approved
University of Detroit–Mercy	SSP	Approved
Wayne State University	MA/CAGS	Approved
<u>Minnesota</u>		
Minnesota State University–Moorhead	PsyS	Approved
University of Minnesota	MA/SC	Approved
<u>Mississippi</u>		
Mississippi State University	EdS	Approved
<u>Missouri</u>		
University of Missouri–Columbia	EdS	
University of Missouri–St. Louis	EdS	Approved
Webster University	EdS	

University	Terminal degree ^a	NASP approval/accreditation ^b
<u>Montana</u>		
University of Montana	MA/SSP	Approved
<u>Nebraska</u>		
University of Nebraska–Kearney	EdS	Approved
University of Nebraska–Lincoln	EdS	Approved
University of Nebraska–Omaha	EdS	Approved
<u>Nevada</u>		
University of Nevada–Las Vegas	EdS	Approved
<u>New Hampshire</u>		
Plymouth State University	MEd	Approved
Rivier University	EdS	
<u>New Jersey</u>		
Fairleigh Dickinson University	MA	Approved
Georgian Court University	MA/CAGS	Approved
Kean University	MA/PD	Approved
Montclair State University	Ed Services Cert.	Approved
New Jersey City University	MA/PD	Approved
Rider University	EdS	Approved
Rowan University	EdS	Approved
Seton Hall University	EdS	
<u>New Mexico</u>		
New Mexico State University	EdS	Approved
<u>New York</u>		
Adelphi University	MA	Approved
Alfred University	MA/CAS	Accredited

University	Terminal degree ^a	NASP approval/accreditation ^b
City University of New York, Brooklyn College	MSEd/CAS	Approved
City University of New York, Queens College	MSEd/CAS	Approved
College of New Rochelle	MS	
College of Saint Rose	MS/CAS	Approved
Columbia University, Teachers College	EdM	Approved
Fordham University–Lincoln Center	PD	Approved
Iona College	MA	Approved
Long Island University–Brooklyn Campus	MSEd	
Long Island University–Hudson	MSEd	
Marist College	MA	Approved
Mercy College	MS	Approved
Niagara University	MS/CAS	Approved
Pace University	MSEd	
Roberts Wesleyan University	MS	Approved
Rochester Institute of Technology	MS/CAS	Approved
St. John’s University	MS	Accredited
State University of New York–Oswego	MS/CAS	Approved
State University of New York–Plattsburgh	MA/CAS	Approved
University at Albany, State University of New York	CAS	Approved
University at Buffalo, State University of New York	MA/AC	Approved

University	Terminal degree ^a	NASP approval/accreditation ^b
<u>North Carolina</u>		
Appalachian State University	SSP	Approved
East Carolina University	MA/CAS	Approved
Western Carolina University	SSP	Approved
<u>North Dakota</u>		
Minot State University	EdS	Approved
<u>Ohio</u>		
Cleveland State University	PsyS	Approved
John Carroll University	EdS	Approved
Kent State University	EdS	Approved
Miami University	EdS	Approved
Ohio State University	EdS	Approved
University of Cincinnati	EdS	Approved
University of Dayton	EdS	Approved
University of Toledo	EdS	Approved
Youngstown State University	EdS	Approved
<u>Oklahoma</u>		
East Central University	MS	
Oklahoma State University	EdS	Approved
Southwestern Oklahoma State University	EdS	Approved
University of Central Oklahoma	MA	Approved
<u>Oregon</u>		
George Fox University	EdS	
Lewis and Clark College	EdS	Approved
University of Oregon	MS	Approved
<u>Pennsylvania</u>		

University	Terminal degree ^a	NASP approval/accreditation ^b
California University of Pennsylvania	MS/Cert.	Approved
Eastern University	MS/AGS	
Edinboro University of Pennsylvania	EdS	Approved
Immaculata University	EdS	
Indiana University of Pennsylvania	MEd/Cert.	Approved
Lehigh University	EdS	Approved
Marywood University	EdS	
Millersville University	MS/Cert.	Approved
Philadelphia College of Osteopathic Medicine	Eds	Approved
Temple University	EdS	Approved
<u>Rhode Island</u>		
Rhode Island College	MA/CAGS	Approved
<u>South Carolina</u>		
The Citadel	EdS	Approved
Francis Marion University	SSP	Approved
Winthrop University	SSP	Approved
<u>South Dakota</u>		
University of South Dakota	EdS	Approved
<u>Tennessee</u>		
Middle Tennessee State University	EdS	Approved
Tennessee Tech University	EdS, MA	
University of Memphis	EdS, MA	Approved
University of Tennessee–Chattanooga	EdS	Approved
<u>Texas</u>		

University	Terminal degree ^a	NASP approval/accreditation ^b
Abilene Christian University	SSP	Approved
Baylor University	EdS	Approved
Houston Baptist University	MA	
Our Lady of the Lake University	MS	
Sam Houston State University	SSP	Approved
Stephen F. Austin University	MA	Approved
Texas A&M University–Central	SSP	
Texas A&M University–Commerce	SSP	Approved
Texas State University	SSP	Approved
Texas Tech University	MEd	
Texas Women’s University	SSP	Approved
Trinity University	MA	Approved
University of Houston–Clear Lake	SSP	Approved
University of Houston–Victoria	SSP	Candidacy status
University of Texas–Austin	SSP	
University of Texas–Rio Grande Valley	MA	
University of Texas–San Antonio	MA	Accredited
West Texas A&M University	MA	
<u>Utah</u>		
Brigham Young University	EdS	Approved
University of Utah	EdS	Approved
Utah State University	EdS	Approved
<u>Vermont</u>		
Castleton College	MA/CAGS	
<u>Virginia</u>		
College of William and Mary	EdS	Approved
George Mason University	MA/CAGS	Approved

University	Terminal degree ^a	NASP approval/accreditation ^b
James Madison University	EdS	Approved
Radford University	EdS	Approved
<u>Washington</u>		
Central Washington University	EdS	Approved
Eastern Washington University	EdS	Approved
Gonzaga University	EdS	
Seattle University	EdS	Approved
University of Washington	EdS	Approved
<u>West Virginia</u>		
Marshall University	EdS	Approved
<u>Wisconsin</u>		
Alverno College	EdS	Candidacy status
University of Wisconsin–Eau Claire	EdS	Approved
University of Wisconsin–La Crosse	EdS	Approved
University of Wisconsin–Madison	EdS	
University of Wisconsin–Milwaukee	EdS	Accredited
University of Wisconsin–River Falls	EdS	Approved
University of Wisconsin–Stout	EdS	Approved
University of Wisconsin–Whitewater	EdS	Approved
<u>Canada</u>		
McGill University	MA	
Mount St. Vincent University	MA	
University of Alberta	MEd	
University of British Columbia	MA/MEd	

University	Terminal degree ^a	NASP approval/accreditation ^b
University of Calgary	MS/MEd	
University of Manitoba	MA	
University of Saskatchewan	MEd	
University of Toronto	MA	
Western University	MA	

^aMany programs grant a degree en route to the terminal degree. When two degrees are granted, only the terminal degree that qualifies one to be a school psychologist is listed. When programs grant a degree plus a certificate, both are listed.

^bNASP program *approval* is given to programs in CAEP-accredited institutions; NASP program *accreditation* is given to programs that are not part of CAEP-accredited institutions.

TABLE 5.2. Listing of Active Doctoral-Level School Psychology Training Programs in the United States and Canada

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
<u>Alabama</u>			
University of Alabama	PhD/EdD		Approved
<u>Arizona</u>			
Northern Arizona University	PhD ^c	On contingency	
University of Arizona	PhD	Accredited	Approved
<u>California</u>			
Alliant International University	PsyD		
Chapman University	PhD		

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
University of California–Berkeley	PhD	Accredited	Approved
University of California–Riverside	PhD	Accredited	Approved
University of California–Santa Barbara	PhD ^d	Accredited	Approved
<u>Colorado</u>			
University of Colorado–Denver	PsyD	On contingency	
University of Denver	PhD	On contingency	Approved
University of Northern Colorado	PhD	Accredited	Approved
<u>Connecticut</u>			
University of Connecticut	PhD	Accredited	
<u>Delaware</u>			
University of Delaware	PhD		Approved
<u>District of Columbia</u>			
Howard University	PhD		Approved
<u>Florida</u>			
Florida State University	PhDc	Accredited	
Nova Southeastern University	PsyD	Accredited	Approved
University of Florida	PhD	Accredited	Approved

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
University of South Florida	PhD	Accredited	Approved
<u>Georgia</u>			
Georgia State University	PhD	Accredited	Approved
University of Georgia	PhD	Accredited	Approved
<u>Illinois</u>			
Chicago School of Professional Psychology	PsyD	On contingency	
Illinois State University	PhD	Accredited	Approved
Loyola University of Chicago	PhD/EdD	Accredited	Approved
National–Louis University	EdD		
Northern Illinois University	PhD	Accredited	Approved
<u>Indiana</u>			
Ball State University	PhD	Accredited	Approved
Indiana State University	PhD	Accredited	Approved
Indiana University–Bloomington	PhD	Accredited	Approved
<u>Iowa</u>			
University of Iowa	PhD		
<u>Kansas</u>			

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
University of Kansas	PhD	Accredited	
<u>Kentucky</u>			
University of Kentucky	PhD	Accredited	Approved
<u>Louisiana</u>			
Louisiana State University	PhD	Accredited	Approved
Tulane University	PhD	Accredited	
<u>Maine</u>			
University of Southern Maine	PsyD		
<u>Maryland</u>			
University of Maryland–College Park	PhD	Accredited	Approved
<u>Massachusetts</u>			
American International College	EdD		
Northeastern University	PhD	Accredited	Approved
University of Massachusetts–Amherst	PhD	Accredited	
University of Massachusetts–Boston	PhD	Accredited	
<u>Michigan</u>			

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
Central Michigan University	PhD	Accredited	Approved
Michigan State University	PhD	Accredited	Approved
<u>Minnesota</u>			
Minnesota State University–Mankato	PsyD	Approved	
University of Minnesota	PhD	Accredited	Approved
<u>Mississippi</u>			
Mississippi State University	PhD	Accredited	Approved
University of Southern Mississippi	PhD	Accredited	Approved
<u>Missouri</u>			
University of Missouri–Columbia	PhD	Accredited	Approved
<u>Montana</u>			
University of Montana	PhD	Accredited	Approved
<u>Nebraska</u>			
University of Nebraska–Lincoln	PhD	Accredited	Approved
<u>Nevada</u>			
University of Nevada–Las Vegas	PhD		
<u>New Hampshire</u>			

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
Rivier University	PsyD ^ε	On contingency	
<u>New Jersey</u>			
Fairleigh Dickinson University	PsyD		
Georgian Court University	PsyD		
Kean University	PsyD ^b	Accredited	Approved
Rutgers, the State University of New Jersey	PsyD	Accredited	Approved
<u>New Mexico</u>			
New Mexico State University	PhD		
<u>New York</u>			
Adelphi University	PsyD		
Alfred University	PsyD	Accredited	Accredited
Columbia University, Teachers College	PhD	Accredited	Approved
Fordham University–Lincoln Center	PhD	Accredited	Approved
Hofstra University	PsyD	Accredited	Approved
Pace University	PhD		
Pace University	PsyD ^b	Accredited	Approved
Roberts Wesleyan University	PsyD ^b	On contingency	

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
St. John's University	PsyD	Accredited	Accredited
Syracuse University	PhD	Accredited	Approved
University at Albany, State University of New York	PsyD	Accredited	
University at Buffalo, State University of New York	PsyD ^ε	Accredited	
Yeshiva University	PsyD ^b	Accredited	Approved
<u>North Carolina</u>			
East Carolina University	PhD	Accredited	
North Carolina State University	PhD	Accredited	Approved
University of North Carolina–Chapel Hill	PhD	Accredited	Approved
<u>Ohio</u>			
Kent State University	PhD	Accredited	Approved
Ohio State University	PhD	Accredited	Approved
University of Cincinnati	PhD	Accredited	Approved
<u>Oklahoma</u>			
Oklahoma State University	PhD	Accredited	Approved
<u>Oregon</u>			
University of Oregon	PhD	Accredited	Approved

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
<u>Pennsylvania</u>			
Duquesne University	PhD, PsyD	Accredited	Approved
Indiana University of Pennsylvania	PhD		Approved
Lehigh University	PhD	Accredited	Approved
Pennsylvania State University	PhD	Accredited	Approved
Philadelphia College of Osteopathic Medicine	PsyD	On contingency	Approved
Temple University	PhD	Accredited	Approved
<u>South Carolina</u>			
University of South Carolina	PhD	Accredited	Approved
<u>South Dakota</u>			
University of South Dakota	PhD		Approved
<u>Tennessee</u>			
University of Memphis	PhD	Accredited	
The University of Tennessee–Knoxville	PhD	Accredited	Approved
<u>Texas</u>			
Baylor University	PhD		
Stephen F. Austin State University	PhD		
Texas A&M University	PhD	Accredited	Approved

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
Texas Tech University	PhD		
Texas Women's University	PhD	Accredited	Approved
University of Houston	PhD	Accredited	Approved
University of Houston–Clear Lake	PsyD ^b	On contingency	
University of Texas–Austin	PhD	Approved	Approved
<u>Utah</u>			
University of Utah	PhD	Accredited	Approved
Utah State University	PhD	On contingency	
<u>Virginia</u>			
James Madison University	PsyD ^b	Accredited	
University of Virginia	PhD ^b	Accredited	Approved
<u>Washington</u>			
University of Washington	PhD	Accredited	Approved
<u>Wisconsin</u>			
University of Wisconsin–Madison	PhD	Accredited	Approved
University of Wisconsin–Milwaukee	PhD	Accredited	Accredited

University	Doctoral degree	APA accreditation	NASP approval/accreditation ^a
<u>Online</u>			
Capella University	PsyD		
<u>Canada</u>			
McGill University (School/Applied Child)	PhD	CPA	
University of Alberta (School/Clinical)	PhD	CPA	
University of British Columbia	PhD	CPA	
University of Calgary (School and Applied Child)	PhD		
University of Toronto (School/Clinical)	PhD	CPA	
Western University (School and Applied Child)	PhD		

^aNASP program *approval* is given to programs in CAEP-accredited institutions; NASP program *accreditation* is given to programs that are not part of CAEP-accredited institutions.

^bClinical/school program.

^cCombined counseling/school program.

^dCombined clinical, counseling, school program.

Models of Training

Although there are many commonalities among the various school psychology training programs, each program has unique characteristics and a unique identity and tradition. Even two training programs that claim to

use the same broad training model and have similar training philosophies may differ substantially. As prospective students research various training programs and make decisions regarding where to apply, the array of choices can be overwhelming, particularly if one is not exclusively focused on a specific location or region. One way to distinguish training programs is to identify the model of training they utilize, as well as the specific focus or philosophy to which they adhere. In this regard, there are existing models of training that provide a framework for looking at the similarities and differences among programs.

APA has supported numerous efforts since the 1940s to articulate and define models of training for doctoral programs in professional areas of psychology. The best known of these is the *scientist–practitioner* training model, which is presumed to describe programs that provide students with a solid foundation in research and the scientific aspects of psychology, enabling them to apply these foundations to the professional practice or application of the discipline. This model was initially articulated in a 1949 clinical psychology training conference held in Boulder, Colorado (Frank, 1984). Hence, the scientist–practitioner model of training is sometimes referred to as the “Boulder model.”

In addition to the well-known scientist–practitioner model, other models of training emerged beginning in the 1970s. The *scholar–practitioner* model of professional psychology emerged from the Vail Conference on Professional Training in Psychology in 1973, partially as a result of dissatisfaction with the scientist–practitioner model, which some trainers and practitioners contended did not provide sufficient attention to the preparation of practitioners in psychology and did little to alleviate personnel shortages during that era. The scholar–practitioner model of training places the primary focus of graduate education on professional or clinical practice and may not emphasize conducting independent research (e.g., an original dissertation or thesis) as an integral aspect of preparing psychologists. In this respect, the scholar–practitioner model is more similar to the training that physicians receive during medical school, which is

typically built on a foundation of basic science and clinical practice but does not require the completion of a research dissertation or extensive research methodology courses for receipt of the doctor of medicine (MD) degree.

More recently (in the early 1990s), the *clinical science* model of training has emerged (in part in reaction to the perceived shift away from research) and focuses on using the scientific method to advance knowledge about clinical problems (McFall, Treat, & Simons, 2015). With a more specific focus on science in psychology, adherents to this model are typically heavily focused on research and studying clinical issues to understand what is effective in the practice of psychology. The Psychological Clinical Science Accreditation System (PCSAS; www.pcsas.org) has emerged as an alternate (or additional) accrediting body for doctoral programs in psychology, first accrediting programs in 2009. Currently accreditation is limited to “programs within the intellectual and educational domain of clinical psychology” and must be housed in departments of psychology (or the equivalent). As of mid-2021, there were 44 PCSAS-accredited doctoral programs in clinical psychology.

Within school psychology doctoral programs, the dominant training model is likely the scientist–practitioner model. The scholar–practitioner model is also likely to be seen in a number of doctoral programs and seems to be more common in doctor of psychology (PsyD) programs. Our guess is that many doctoral programs that list “scientist–practitioner” as their model are actually more closely aligned to the scholar–practitioner model.

Within a specialist-level program (which consists of at least 60 semester or 90 quarter hours of coursework), it is simply not as feasible to be as highly specialized as within a doctoral program (which typically consists of about 100 or more semester credit hours or 150 or more quarter credit hours). Thus, the specialist-level programs in school psychology tend to fit within the scholar–practitioner model, and, in some cases, scientist–practitioner models. Fagan and Wise (2000, 2007) presented an additional model of training, the *pragmatic* model, which is considered to be a relevant option for nondoctoral programs. The pragmatic model reflects an

orientation toward meeting accreditation requirements and standards (of NASP and state departments of education), and is highly prescriptive in terms of specific courses and competencies that must be covered for someone to become a practicing school psychologist. This “can result in a high degree of similarity among programs” (Fagan & Wise, 2007, p. 201), which is considered to be an unavoidable trade-off with the specificity inherent in accreditation standards. Certainly, there is something to be said for the pragmatic model of training, although we believe that it is still quite possible for specialist-level programs to focus on one of the general training models, particularly the scholar–practitioner model. These training models are summarized in [Table 5.3](#).

TABLE 5.3. Overview of General Training Models in Psychology

Training model	Brief description
Scientist–practitioner	Emphasizes research and scientific aspects of psychology and application of these foundations to the professional practice or application of the discipline
Scholar–practitioner	Primary emphasis is on professional or clinical practice of discipline, but also has extensive expectations for production of scholarly work, such as dissertation research
Clinical science	Emphasizes scientific method and research to advance knowledge about clinical problems
Pragmatic	Main emphasis is on alignment with state department of education and/or NASP training standards to ensure that program meets all relevant criteria and receives program approval

Curricula

Although individual training programs may establish the curricula and coursework requirements they deem to be appropriate, there is a great deal of similarity among programs in this regard because of the need to adhere to prescribed standards from national accrediting bodies and from state departments of education (which often use national accrediting standards as a basis for their internal requirements for school psychology licensure or certification). As a result, training programs may vary substantially in terms of their models of training and the philosophical underpinnings of the program faculty. However, there tends not to be much difference in terms of credit hour requirements, general curriculum domains, and, in many cases, even the content and title of specific courses.

The specialist-level training standard advocated by NASP (and adopted with few changes by numerous state departments of education for program approval) requires a minimum of 60 semester credits or 90 quarter credits and includes a full-time internship (minimum 1,200 clock hours). The complete criteria for this standard are found in NASP's "Standards for Graduate Preparation of School Psychologists." These graduate standards are one set of standards in NASP's 2020 Professional Standards (NASP, 2020b), which are a unified set of principles that guide professional practices, credentialing, graduate education, and ethical behavior of effective school psychologists. The NASP standards define contemporary school psychology; promote comprehensive and integrated services for children, families, and schools; and provide a foundation for the future of school psychology.

Students in specialist-level programs typically are required to complete at least 2 years of full-time study on campus, in which they complete 12–16 credit hours of coursework each semester and also engage in practicum or field training requirements. Some programs have spread this training over 3 years to allow students a lighter course load with more time to focus on other program requirements (e.g., research requirements). In terms of specific coursework required, NASP has adopted a general approach

wherein several content domains are specified and programs are required to demonstrate that their curricula sufficiently cover these domains. In some instances, state departments of education are more prescriptive of specific coursework requirements and may require the completion of specific courses rather than general domains. The following 10 domains of professional practice are included in the NASP (2020b) standards:

- Data-based decision making
- Consultation and collaboration
- Academic interventions and instructional supports
- Mental and behavioral health services and interventions
- Schoolwide practices to promote learning
- Services to promote safe and supportive schools
- Family, school, and community collaboration
- Equitable practices for diverse student populations
- Research and evidence-based practice
- Legal, ethical, and professional practice

At the conclusion of the coursework and practicum training, students in specialist-level programs complete a full-time internship for 1 academic year (1,200 clock hours minimum) under the supervision of a licensed or credentialed school psychologist. NASP training standards also allow students to complete the internship on a part-time basis over a 2-year period and provide some flexibility in the settings in which the internship may be completed. At least 600 of the 1,200 clock hours must be completed in a school setting, a requirement that allows students to complete their remaining hours in a non-school setting (such as a clinic or research center) under the supervision of an appropriately credentialed professional. While not all training programs are NASP approved, few training programs purposefully adopt curriculum requirements below the NASP standard because doing so would preclude them from pursuing NASP program approval and because graduates of programs with lower standards may have

difficulty obtaining jobs outside of the state in which the training program is located.

Separate standards for doctoral-level training in school psychology have been developed by both NASP and APA. The doctoral standards advocated by NASP (2020b) include the basic standards for all training programs and coverage of the 10 domains listed above but also specify that doctoral programs provide “Greater depth in one or more school psychology competencies described in NASP Domains of School Psychology Practice, consistent with the philosophy/mission of doctoral-level preparation reflected in program aims, sequential program of study, and supervised practice” (p. 30). In addition, the NASP standards stipulate that doctoral programs must include a minimum of 4 years of full-time training at the graduate level, consisting of a minimum of 90 semester credits (or the equivalent) and a minimum of 1,500 clock hours for the internship. If students have prior school-based specialist-level internship or a 600-hour advanced practicum experience in the schools that provided a “comparable experience to a formal specialist-level internship” (p. 30), they can complete the entirety of their doctoral internship in a non-school setting, such as a hospital, clinic, residential treatment facility, or child guidance center. Otherwise, the same rule for a minimum of 600 clock hours in a school setting during the internship holds true for doctoral internships in school psychology (NASP, 2020b).

The doctoral program training standards espoused by APA and required for accreditation from this organization differ from NASP’s in terms of specificity and design but are otherwise similar in terms of general expectations and credit hour requirements. APA does not have separate accreditation requirements for doctoral programs in clinical, counseling, school, and combined psychology—collectively referred to as *health service psychology*. Rather, the accreditation standards, which are detailed in *Standards of Accreditation for Health Service Psychology* (SoA; APA, 2018), with additional specificity provided in the companion *Implementing Regulations* (see <https://www.accreditation.apa.org/policies>) focus on

discipline-specific knowledge and profession-wide competencies that are expected to be covered in all health service psychology training programs. In the SoA document, the specific processes for how competencies are reached are not prescribed but programs must nevertheless show how their training requirements and standards are consistent with general areas of competencies as outlined in the SoA.

It is assumed that doctoral programs in school psychology seeking APA accreditation will adhere to the general psychology training guidelines and will also be consistent with what is generally deemed to be appropriate specialty training in school psychology. Like NASP's doctoral training standards, the APA guidelines specify that doctoral programs must include at least 3 years of full-time academic study beyond the bachelor's degree plus an additional year of full-time internship training. APA-accredited programs must document that students have discipline-specific knowledge in the field of psychology broadly. Under the SoA, programs can have students take courses in these specific areas or can provide other training opportunities to provide students with appropriate graduate-level knowledge. Areas of discipline-specific knowledge outlined in the SoA include:

- History and systems of psychology
- Affective aspects of behavior
- Biological aspects of behavior
- Cognitive and affective aspects of behavior
- Developmental aspects of behavior
- Social aspects of behavior
- Advanced integrative knowledge (includes integration of any two: affective aspects of behavior, biological aspects of behavior, cognitive and affective aspects of behavior, developmental aspects of behavior, and social aspects of behavior)
- Research methods
- Quantitative methods
- Psychometrics

The profession wide competencies outlined in the SoA in which students must demonstrate competence are:

- Research
- Ethical and legal standards
- Individual and cultural diversity
- Professional values, attitudes, and behaviors
- Communication and interpersonal skills
- Assessment
- Intervention
- Supervision
- Consultation and interprofessional/interdisciplinary skills

In comparing the NASP and APA standards and domains for doctoral training programs, there are certainly some identifiable differences but also many similarities. Regardless of whether doctoral programs in school psychology are accredited by APA, approved/accredited by NASP, or have joint association approval/accreditation, students who enter these programs can expect that their training will take 5–6 years beyond the bachelor's degree (although 4 years is a minimum, most students take longer); their coursework will include broad coverage of scientific, theoretical, and professional practice issues; they will engage in extensive practicum or fieldwork experiences during the years in which they complete their coursework; and their experience will culminate in a full-time internship for 1 year in a school setting or a related youth-serving clinical setting. Doctoral students can also typically expect to complete a dissertation research project toward the end of their program. Some programs (particularly PsyD- and doctor of education [EdD]-degree programs, as well as programs that adhere more to a scholar–practitioner model) may require a comprehensive or terminal project in lieu of the doctoral research dissertation, but the dissertation requirement seems to be much more typical than the alternatives.

Determining Training Level and Location

As well-qualified prospective school psychology students consider applying to graduate programs, they face a bewildering array of choices concerning which programs to target. One of the first decisions that must be considered is whether to pursue training at the doctoral level or the specialist level. It seems very likely that the specialist level of training will continue to serve as the entry level into the field in the coming years in most, but not all, respects. The large majority of practitioner positions within public school systems do not require doctoral-level training and in many systems, there is little financial incentive for investing the additional time and money required to obtain a doctoral degree. However, there are some good reasons to consider doctoral-level training. Specifically, one cannot become a core faculty member in a school psychology training program without a doctoral degree, and this level of training is also usually required for school psychologists who desire to work in clinical or medical practice settings. Although some states allow school psychologists with specialist degrees and appropriate credentials to engage in independent or private practice, most do not have such a provision and require the doctoral degree and a state-issued psychology license (through a board of psychological examiners or similar entity) for this role. In addition, some supervisory positions in larger school systems, such as school psychology coordinator, director of pupil personnel services, or director of student services or special education, may require a doctoral degree.

Aside from these practical considerations, there are other reasons for prospective students to consider doctoral-level training. Although the 2 years of university-based training and the additional year of internship training required for the specialist degree may provide an excellent foundation for a career as a school psychologist, the additional years of training that are typically required for doctoral-degree programs above the specialist training may greatly enhance one's background and competence in research methods, specialized assessment and intervention techniques, and

intervention expertise with specialized populations. These benefits may be important to consider in selecting the level of training to which one aspires. In addition, we have observed that many of our students in specialist-level programs have the desire to obtain a doctoral degree but decide that it would be best to first work for 3–5 years or so and then return to graduate school. Although having such professional experience can be a great asset to students in a doctoral program, the reality is that there are many potential barriers that can obstruct one's return to graduate school once full-time employment as a specialist-level school psychologist is attained. Examples of common barriers encountered when returning to the role of a full-time student (with its accompanying lifestyle changes) may include the practical issues of becoming accustomed to a full-time professional income, starting a family, taking on greater financial obligations, and so forth. Another consideration is having to complete a second internship after the doctoral coursework has been completed as part of the doctoral program. For these reasons, graduate students interested in pursuing doctoral-level training may want to think twice before deciding to work for a few years after the specialist degree and then returning to school to complete the doctoral requirements. Although some doctoral programs in school psychology are tailored to the needs of working professionals who decide to pursue the doctoral program while maintaining their employment, such programs are still the exception and are not available in most regions of the United States, particularly outside of large urban areas.

The other choice that prospective students must make is which specific institutions or programs to consider. Certainly, there are practical issues to consider in this regard, such as relocation to a distant state or region, the cost of tuition, and the availability of financial assistance. There are also important professional and conceptual issues to consider in the selection of a program. Although a great deal of similarity exists among various training programs in terms of training and curricula offered, there are also many important differences. Typically, and as we discussed at the beginning of this chapter, each program has its own unique philosophical orientation and

training model. Thus, programs may vary greatly in their approach to teaching assessment and intervention techniques, in their view of the role of school psychologists, in the types of training settings available, and so forth.

Prospective students would be wise to carefully research potential graduate programs and apply to programs that have the type of training model, course offerings, and practice or research specialties they are seeking. Another important element in program selection is to learn about the faculty who staff particular programs. What are their research, teaching, and clinical interests? How many are there, and what is the faculty-to-student ratio? What is the availability of faculty for advising students? What are their individual theoretical orientations toward practice, teaching, and mentorship? Are they accepting new advisees? Does the faculty as a whole represent the demographic diversity sought by prospective students (e.g., racial or ethnic minority, LGBTQ, female)? For students who enter doctoral programs and are considering the possibility of becoming a school psychology faculty member, the selection of a program with faculty who can provide them with the appropriate mentoring and experiences in research and publication is especially critical. Finally, there is an important climate or environmental element to consider when deciding on what program to attend. Given that one is investing considerable time and money in a graduate program, it is wise to consider such issues as level of collegiality among faculty and students, how satisfied and positive current students seem to be, and what it would be like to live in the community where the program is located. These are important issues, and to help evaluate these, we advise potential graduate students to visit the program and community in person before accepting a program's admissions offer, if possible.

Characteristics of Faculty and Students

For the same reasons that it is difficult to obtain a highly accurate picture of school psychology training programs, it is quite complicated to accurately portray the characteristics of graduate students in school psychology

training programs, as well as the characteristics of faculty or trainers who staff these programs. In many respects it is even more difficult to gather highly accurate data on students and faculty because the numbers are so much greater than the numbers of programs and because there is not a common metric or reporting system for programs to provide this information. Given these caveats, accurate representation of the graduate students and faculty in school psychology training programs is of great worth to the field because the faculty serve as the gatekeepers and socializing agents into the profession, and the current student population represents an important part of the future of the profession.

Students

As noted earlier in this chapter, given that most school psychology training programs are at the specialist level, most students are also at this level. Data from the 2018–2019 school year (Gadke et al., 2021) indicate that there were approximately 10,173 school psychology students enrolled in graduate school training programs (including those on internship), with about 72% being enrolled in specialist-level programs. As is true of the field as a whole (see [Chapter 6](#)), most of the students (an estimated 86% of both specialist-level and doctoral students) are female. In addition, few students at either the doctoral level (29%) or specialist level (30%) were students of color. As noted in [Chapter 4](#), we believe that diversifying school psychology is critical, so we encourage a greater focus within the field on recruitment and retention of students of color.

What characteristics make for a successful graduate student and ultimately a successful school psychologist? Although a few attempts have been made over the past decades to describe the desirable personal attributes of school psychology students and practitioners, no consensus, overarching survey, or scientific findings exist on this topic. However, based on some of the common elements of lists compiled by previous authors (e.g., Bardon, 1986; Bardon & Bennett, 1974; Fagan & Wise, 2007; Fireoved &

Cancelleri, 1985), as well as our own take on what is required for a successful educational and professional experience in school psychology, we view the following dispositions and characteristics as being highly desirable (and essential in many respects) for school psychology graduate students and professionals to possess:

- Strong academic aptitude
- Intellectual curiosity and the ability and desire to apply scientific methods in conceptualizing and solving problems
- Excellent interpersonal and social skills
- Ability to communicate clearly and effectively, orally, verbally, and in writing
- Sense of personal, social, and ethical responsibility
- Intrapersonal strength, including insight into one's own behavior and motivations, emotional stability, and the ability to persist and persevere when circumstances are difficult
- Ability to ask for assistance from colleagues or supervisors when a task or experience is new and unfamiliar
- Ability to receive feedback in an open, nondefensive manner and the willingness to invest the time and energy to grow and change as a result of the feedback
- Strong desire to assist and support children, their families, and other professionals through educational and psychological processes
- Understanding of and respect for persons from diverse backgrounds and with varying experiences and worldviews
- Ability to provide leadership and facilitate effective problem solving within small groups
- Ability to adapt successfully to changing conditions and expectations and to be resilient in stressful situations
- Ability to be well organized and to complete a high volume of tasks in a timely manner

- Strong value for social justice and a desire to support schools in addressing educational and mental health disparities experienced by minoritized and marginalized youth, their families, and their communities.

To some extent, these skills and personal characteristics may be taught, learned, or refined within a graduate training program in school psychology. There is also the reality that many of these attributes are developed and refined over one's lifetime and that it may be difficult to simply "teach" these characteristics during the graduate training years; over time, these characteristics tend to become more like a personality trait than a state of behavior. For example, if a new graduate student begins training with noticeable deficits in social and interpersonal skills, there may be limits to how much these characteristics can be improved during a 3- to 6-year period of graduate education. Thus, school psychology training program faculty are likely to carefully consider an applicant's possession of these desired personal attributes and dispositions during the admission process for graduate school.

Faculty

Each school psychology training program must have faculty to teach courses, admit and advise students, administer the program, supervise student research and field training, and assist students in their transition from internship to regular employment, including endorsing them for licensure or certification after they have completed all program requirements. This list of faculty responsibilities is only partial. School psychology trainers do not operate independently or within a vacuum. Rather, they are typically part of a broader faculty within their department and as such have faculty responsibilities within the larger context outside of the program. School psychology faculty may teach undergraduate courses or other graduate courses outside of the school psychology program. They may

have departmental, college, or university committee responsibilities, such as serving on the faculty senate or being on a personnel, curriculum, or facilities committee. They may also have administrative responsibilities outside of the program, such as budget planning, program development, and review of personnel decisions, such as tenure and promotion or hiring.

In addition, school psychology faculty members are typically expected to contribute to their field outside of the college or university context. They may provide leadership or other service in state or national school psychology organizations and collaborate with state departments of education in developing the standards for the profession within that state. School psychology faculty may be asked to serve as editorial board members or editors of professional journals or newsletters within the field. Faculty who work at institutions in which research and the production of scholarly work are considered primary activities are expected to conduct research, publish articles in peer-reviewed journals, and present their research at professional meetings. They may also be expected to write books, develop products (e.g., assessment tools and intervention programs) for use in the field, and secure funding for their research or training efforts through submitting grant proposals to government agencies or private foundations. In some cases, school psychology faculty may provide professional services in schools or clinics on a part-time basis or work as consultants to school districts or other organizations. Indeed, the roles and expectations of school psychology faculty are many and varied—requiring creativity and the ability to juggle multiple responsibilities.

Faculty in school psychology programs typically work full time for the institutions in which the programs are housed. As training standards and professional expectations have evolved over the years, the doctoral degree has become the entry-level educational attainment to work as a school psychology faculty member, at least on a full-time basis. Some programs may also hire part-time or “adjunct” faculty to teach courses and assist in supervising the applied training of students. In many cases, these adjunct faculty members are full-time practitioners or administrators in school

districts and clinics. Although, to the best of our knowledge, there are no precise estimates on how many school psychology faculty there are based on the number of school psychology graduate programs, as well as the standards of NASP (2020b) that specify each approved program must have “faculty who are designated specifically as school psychology program faculty members and total at least three full-time equivalents” (p. 29), a conservative estimate would be that there are at least 780 trainers in the United States. However, it is likely that the number is much higher, as most programs have more than three core faculty members. APA’s (2018) SoA does not specify a required number of faculty but indicates that programs must have “an identifiable core faculty responsible for the program’s activities, educational offerings, and quality, who ... are sufficient in number for their academic and professional responsibilities” (p. 18). An informal review of APA-accredited school psychology programs indicates that, on average, these programs have about 4.5 tenured/tenure-track faculty, with the range being three to eight. As should be obvious from these figures, programs do differ in the number of faculty they have, a figure that is usually correlated with the number of students in a program. Usually, the more students a program admits, the more faculty members the program has.

Likely in part due to aging and retirements, the job market for faculty positions has been quite robust from an applicant perspective but rather troubling from a program-hiring perspective, with an ongoing shortage of doctoral-level school psychologists applying for academic positions. Shortages of school psychology trainers have been documented for a number of years. The projected rate of retirements of trainers is quite high, with close to half of all male faculty members and one-third of all female faculty members in 2010 expected to have retired by 2020 (Castillo, Curtis, & Tan, 2014). Although more recent data could not be found, it seems likely that the shortage in trainers and faculty will continue for some time.

It was common for faculty who joined school psychology training programs two decades ago or more to have had several years’ experience as school psychologists in practice settings before becoming trainers. Certainly,

there is much to be said for the mentoring and role modeling qualities of school psychology trainers who have extensive experience as practicing school psychologists. It is our observation that it is becoming increasingly typical for new program faculty to enter their first academic jobs directly out of graduate programs, with only practicum and internship experiences as practitioners, and less common for new faculty members to have had several years' prior experience as practitioners. Perhaps the increased demands on academicians in recent years to establish prominent research and publication records, regardless of the type of institution at which they work, has been responsible in part for this perceived trend.

What are the personal characteristics or attributes necessary to help one become a successful faculty member in a school psychology training program? To start with, the characteristics we have previously noted as desirable for graduate students and practicing school psychologists would be of great value in making an excellent trainer. To these qualities we add a few more that we believe are especially relevant to the unique demands and expectations of being a faculty member:

- Desire to mentor diverse graduate students into the profession and to serve as a professional guide and role model for them
- Ability to juggle multiple, and often conflicting, role demands and expectations (e.g., staying current in practice within the field while also establishing a strong program of scholarly work)
- Ability to think creatively and establish innovative programs of teaching, scholarly work, and clinical training
- Ability and desire to stay current on trends and findings within the field of school psychology, including updates to training standards and best practices, and to continually incorporate new ideas into teaching and scholarly work
- Ability to work effectively and positively within systems and among colleagues

- For faculty who work at research universities or other institutions at which research and scholarly work is an essential expectation, it is absolutely necessary for one to have the desire to engage in these activities on a continual basis and to produce the expected results (publications, products) at regular intervals and sometimes in large volume.
- Increasingly, the desire and ability to garner resources through state and federal funding mechanisms for research and training purposes (e.g., student and program support) are highly desired and necessary for school psychology faculty, particularly in the current era of fiscal retrenchment in public higher education.

After reading this list of desired characteristics (and some of the implications), graduate students may wonder why one would want to become a faculty member in the first place! Although there are certainly some aggravations and frustrations built into the role of a trainer, just as there are in the role of a practitioner, we in no way want to discourage graduate students from considering careers as faculty members. On the contrary, we view this role as exciting, flexible, tremendously rewarding, and quite enjoyable. Having the opportunity to shape the future of the field and to mentor graduate students into the profession is a tremendous privilege, and we believe that being a school psychology trainer is an amazing career path for those graduate students who are so inclined. Given the current shortage of trainers, we certainly hope that more programs will prepare students for academic careers by providing adequate training and experience in research, as well as in the applied areas of school psychology.

Practicum and Internship Training

In the applied or professional areas of psychology and education, students develop expertise in the practice of their particular field through supervised field experiences. The field of school psychology has particularly strong traditions and practices in this area. Both NASP and APA have been active in shaping experience standards for the field and have addressed expectations for practicum and internship training and supervision at length in their respective guidelines for training and credentialing (APA, 2018; NASP, 2020b). Although there are some differences in the standards of the two organizations with respect to field training (especially with regard to differences between specialist- and doctoral-level training standards), there is also a great deal of similarity.

Practicum Training

Practicum training generally begins early during the graduate training experience. It is not unusual for school psychology training programs to have students begin a limited practicum placement during their first year or even first semester in the program. Practicum training provides an opportunity for students to receive an orientation to the culture and expectations of schools and related systems, to become familiar with professional practice in the field through observing and shadowing a practicing school psychologist, and to take on gradually increasingly complex responsibilities for providing professional services. Professional services provided during the practicum experience may include assessment, consultation, and direct interventions conducted under the supervision of an experienced credentialed professional.

Training programs vary in terms of their specific expectations and opportunities for practicum training. Some programs maintain university-

based clinics or service centers in which students may practice their clinical skills by providing direct services to the public under the supervision of program faculty. Other programs do not maintain such clinics but place their students in practicum settings in the community. These settings are primarily in public schools, but they are not limited to such settings, particularly in doctoral programs. For example, training programs that are located in universities with medical centers may also provide practicum opportunities for their students in specialty medical clinics under the supervision of licensed psychologists. In addition, training programs that have relationships with community mental health programs, practitioners in group practice, or residential treatment facilities may create practicum opportunities for their students in these agencies.

By definition, practicum training occurs on a time-limited basis while students are still completing academic coursework, research, and other program requirements. A practicum experience may be tied to a specific academic course (such as a consultation or assessment), or it may be broader in scope. Practicum experiences typically include time for on-site supervision with the field supervisor, but by definition they are conducted under the direction of the training program faculty and may include weekly supervision and training seminars with program faculty. Neither NASP nor APA sets a minimum number of required practicum hours but both specify that the practicum be a supervised, evaluated experience that covers a range of practice skills. While some states specify a minimum number of required practicum hours for credentialing as a school psychologist (e.g., California requires 450 with at least 300 in the schools; Illinois requires 250), most states have no specific hour requirements.

Internship Training

Internship training differs from practicum training in four major ways. First, rather than being integrated within the academic coursework, internships are conducted at the end of a student's program of study, after all (or nearly

all) coursework, practica, and other program requirements have been completed. Second, rather than being a part-time experience with limited involvement, internships require a full-time commitment over the course of an academic or calendar year (although both NASP and APA allow for internships to be conducted on a half-time basis over 2 years). Third, whereas supervision of practicum experiences is usually the direct responsibility of faculty within the training program (with assistance from on-site field supervisors), internship training is conducted under the direct supervision of a licensed field supervisor, with the training program playing a more limited role, such as progress monitoring, communicating with the student and supervisor, and student evaluation. Fourth, although practicum training experiences may focus on limited types of professional skills, interns are expected to provide a comprehensive range of supervised professional services, using and integrating a broad range of skills. In essence, the internship is a capstone experience of a student's graduate training in school psychology, one of the final steps toward independence as a professional. Definitions of what constitutes a full-time internship in school psychology vary somewhat based on training programs, organizational training standards, and level of training. As long as they meet the training standards of relevant professional associations, and assuming they satisfy the credentialing requirements of the states or provinces in which they are located, training programs may establish their own unique guidelines for internship training in order to make this experience appropriate to the specific objectives of the program. Some of the primary general principles and guidelines for internship training in school psychology are as follows:

- For specialist-level internships, NASP requires that the internship must be at least 1,200 clock hours, which is equivalent to full-time work for an academic year or half-time work over a 2-year period.
- For doctoral-level internships, NASP requires a minimum of 1,500 clock hours. Many predoctoral internships (particularly those in non-

- school settings or consortiums) require as many as 2,000 clock hours.
- NASP training standards stipulate that approximately half of the internship time (600 hours minimum) must be conducted in school settings. APA has no such setting-specific requirement, a difference that has been a point of contention between the two organizations with respect to doctoral training programs.
 - Internships must be conducted under the supervision of an appropriately credentialed school psychologist or, in the case of non-school settings, a board-licensed psychologist. Supervision duties may be split among two supervisors if needed. Supervisors of specialist-level interns are expected to hold at least a specialist degree, whereas supervisors of predoctoral interns are expected to hold a doctoral degree.
 - A minimum of 2 hours per week of individual, face-to-face supervision between interns and their supervisors is the general expectation.
 - The internship experience is considered to be a training experience, not just full-time employment. Thus, the internship should be based on a written internship plan and include a broad range of activities, including group supervision seminars, professional development workshops, opportunities for observation of supervisors, and so forth.
 - The training program monitors the student's internship experience to ensure that the objectives of the program are realized. The internship supervisors and training program faculty communicate as needed for problem solving and evaluation of the student's progress.

The process of securing an internship placement is as variable as the training and internship programs. NASP has yet to adopt any accreditation or approval program for specialist-level internships, so there is no central clearinghouse for posting and seeking internship positions. School psychology training programs typically develop their own network of internship settings on an informal basis, and it is not unusual for students

from particular training programs to intern regularly at these sites. Information on internship opportunities is often sent to training program directors and then posted or sent to listservs for potential interns to consider. Attending state school psychology association conferences and networking with psychologists and administrators from potential internship sites is a time-honored way to get one's foot in the door for an internship. In addition, many state school psychology associations post notice of internships (and jobs) on their websites. If a student is willing to look nationally rather than regionally for internship opportunities, attendance at a national convention (NASP or APA) often provides similar networking opportunities on a broader scale. In addition, students who desire to stay or relocate to a particular geographical area are often successful in securing internships by contacting school psychologists and administrators early in the year prior to their internships and initiating a dialogue, letting them know of their interest and availability.

Potential interns in doctoral programs in school psychology sometimes secure their internships through the same methods as were discussed for specialist-level internships. However, for many doctoral-level internships, an established network is available for accreditation and posting of internships. APA accredits predoctoral internships and posts a listing of accredited sites on its website (www.apa.org/ed/accreditation/programs). APA-accredited internships operate their posting, applications, and notification process through the Association of Psychology Postdoctoral and Internship Centers (APPIC; www.appic.org). APPIC listings include APA-accredited internships, as well as many other doctoral-level internships that are not APA accredited but that agree to operate under the conditions established by APPIC, which are similar to those of APA. Although many of the internship opportunities in the APPIC network are not appropriate or relevant for school psychology students (i.e., those that focus exclusively on adult populations), this system also includes a considerable number of other internship opportunities that are appropriate for school psychology students. These opportunities include a limited number of school districts,

consortiums between school districts and community agencies, child guidance centers, residential treatment centers for youth, children's medical centers, and some community mental health agencies that work extensively with schools and children. The advantage for graduate students in securing internships through the APPIC network is that all sites have agreed to provide training opportunities and appropriate supervision, areas that are sometimes problematic when a student attends an internship that does not have the mechanisms already in place to ensure that all training requirements are met.

For a number of years, the APPIC system has consistently had more applicants for its internships than could be placed. This seems to have balanced out some in recent years and, as reported on APPIC's website, 2018 was the first year in which there were fewer applicants than internship positions and this trend continued in 2019 and 2020; however, in 2021 there were again more applicants than positions. Match statistics from the APPIC website indicate that, for 2021, 8% of applicants were unmatched after the final match process. This is a significant improvement from 5–10 years ago, when over 20% of applicants did not match. There was a steady decrease in nonmatched students over about 5 years until the rate went up in 2021. The number of positions that went unfilled was slightly lower than previous years at 3%. Students from school psychology programs matched at a lower rate than did those from clinical or counseling programs, with 84% of school psychology students matching compared to 90% of clinical students and 88% of counseling students. Student-to-internship site match rates vary greatly by program, and prospective students should be encouraged to look at match rates (which APPIC publishes and which APA-accredited programs are required to post on their websites¹) when making decisions regarding graduate school.

For doctoral students in school psychology programs, the APPIC match process may not be the way many choose to go—especially if their end goal is to work in the schools. While there are an increasing number of school-based internships listed with APPIC, many school-based internships are

non-APPIC sites and graduates may choose these sites over participating in the match. That being said, there are certain career paths that school psychologists might take that would make an APPIC internship (and especially an APA-accredited internship) more important. In addition, the APA SoA state that for APA-accredited doctoral programs, “Students are expected to apply for, and to the extent possible, complete internship training programs that are either APA- or CPA-accredited.” When students complete nonaccredited internships there is greater burden on the graduate training program to document the “quality and adequacy of the internship experience.” Doctoral students should explore their career options early and know the associated requirements so that they are in the best position to be competitive for the internships and jobs they will be seeking in the future.

Finding a good internship placement is a critically important element of becoming a successful school psychologist. A carefully planned and supervised internship experience will help a student move into the field appropriately prepared and well positioned for future success as a practitioner or a trainer. Internships that do not meet one’s expectations for training and supervision may prove to be disappointing and may even discourage a student from working in the field. As school psychology trainers, we have seen both results and much prefer the former outcome to the latter. With careful planning and a willingness to go where the best training opportunity is available, a positive outcome is more likely. Selection of the best internship site is dependent to some extent on whether a student is geographically mobile and able to go to where the better opportunities are. For students who are bound to location, opportunities must be secured within a limited locale, and in some cases, the fewer choices involved in such situations means that extra planning and effort are required for a good internship experience.

Almost all full-time internships in school psychology are paid experiences. Although accepting unpaid internships is sometimes a reality for students who are not willing or able to relocate to sites that offer paid opportunities, we do not encourage unpaid full-time internship situations

and believe that some of these situations border on exploitation. The rate of pay varies greatly by state and region. It has been our experience that the lower-paying internships typically pay a student about half of what a fully credentialed beginning school psychologist would earn in that setting, although it is more typical for interns to earn maybe 75% of the salary of a beginning credentialed professional in that setting. Some interns may even be able to negotiate for a full salary, especially in districts in which interns are hired to fill vacant school psychologist positions rather than to fill positions specifically allotted to interns and/or in areas of the country where there is an acute shortage of school psychologists. In addition to salary, it is important for interns to consider what benefits are offered by the internship site, as well as the cost of living in the area in which the internship is located. These factors can help put a salary figure in a more realistic context.

Credentialing in School Psychology: Certification and Licensure

Completing the internship and receiving the graduate degree or completion certificate in a school psychology program is a necessary but insufficient step toward working as a school psychologist. To work as a practitioner in a public school or independent practice setting, one not only must have the necessary academic preparation but must also possess an appropriate credential. In some cases, getting the necessary license or credential following completion of the program and endorsement by the training program faculty is mostly a formality: The training institution certifies that the individual who is applying for the credential has completed all essential program requirements, the applicant completes the paperwork process (including providing information for a criminal background check to be performed) and pays a fee, and the credential soon appears in the mail. However, in many cases, the process is more complex. A lengthier application process, a rigorous transcript evaluation, a challenging written exam, and in some cases, an oral exam with licensing board members may all be required. This section provides a brief overview of the three most common credentialing processes that school psychologists are likely to encounter: state department of education certification/licensure, the Nationally Certified School Psychologist (NCSP) credential from NASP, and licensing for independent practice as a psychologist from state psychology licensing boards.

State Department of Education Certification/Licensure

Each of the 50 U.S. states has particular processes for credentialing professional educators and related service professionals (e.g., school administrators, speech–language pathologists, school counselors, school

psychologists) to work in the public school system of that state. Prior to about the 1980s, this process was almost always referred to as *certification*, and it culminated in the receipt of a certificate allowing one to work in public school settings. After some of the educational reform activities that were typical in U.S. states in the 1980s and 1990s, some states changed the title of the credential they awarded from certificate to *license*, but the intent and meaning were the same: to allow the holder of that credential to work within the individual's specialty area in the public schools. The Canadian provinces have similar procedures for credentialing individuals to work as education professionals within public school systems. The purpose of state or provincial credentialing is quality control. The state sets minimum preparation standards that must be attained for one to work as a teacher, counselor, school psychologist, and so forth, and then verifies that these standards have been met prior to issuing the practice credential.

The typical route to receiving a credential within the state in which one's training program is located is to obtain an endorsement from the training program, which is then accepted by the state or provincial department of education as evidence that the training criteria have been met. Most states have additional requirements, such as earning a passing score on the Praxis School Psychologist exam. NASP maintains a list with links to current state credentialing requirements (www.nasponline.org/standards-and-certification/state-school-psychology-credentialing-requirements). The process of applying for a credential is most straightforward for applicants applying in the state in which they completed their graduate training. Because out-of-state institutions are not approved by that particular state department of education, a detailed transcript evaluation process may be required to ensure that the standards of the state have been met. In addition, the state credentialing body may require the applicant to demonstrate evidence of completion of an out-of-state training program through an additional endorsement process. As school psychology trainers, we have all had the experience of receiving such requests from graduates of our training

programs, some of whom completed the program years before we were employed there.

Because there is variability in the school psychology training and credentialing standards adopted by states and provinces, an individual may complete a training program in one state, obtain experience working as a school psychologist in that state, and still not meet the credentialing requirements of another state. In such instances, additional specific coursework sometimes is necessary, although states may issue a temporary credential and allow the applicant a period of 1 or 2 years to show evidence of completing the additional requirements. Also, because credentialing requirements may vary considerably across states and provinces, we advise that individuals who are considering practicing in a state other than the one in which they were or will be trained investigate carefully the specific requirements for school psychology credentialing in that state and ensure that they meet the necessary expectations prior to completion of their training program, if possible. In general, graduates of NASP-approved training programs are likely to meet credentialing requirements across different states. However, there may be situations in which this is not the case.

NCSP Credential

In 1988, NASP established the National School Psychology Certification Board (NSPCB), which administers the process of awarding the NCSP credential. The board and the NCSP credential were established to provide a national standard that can be used as a measure of professionalism by interested agencies and individuals, and to recognize school psychologists who meet this national standard. Additional purposes for establishing the NCSP credential include the promotion of continuing professional development among school psychologists and a desire to foster cooperation and commonality among groups that recognize school psychologists. Among the circumstances surrounding the creation of the NCSP was the

fact that so much variation exists across states with regard to the criteria for being considered for school psychology certification or licensure (Batsche & Curtis, 2003). As stated by NASP (2020a), the intent of the NCSP is to “promote uniform credentialing standards across states, agencies, and training institutions, and to facilitate the credentialing of school psychologists across states through the use of equivalency” (p. 38).

Awarding of the NCSP requires the following:

- Completion of a minimum 60-semester-hour graduate-level training program in school psychology with training across NASP’s 10 practice model domains.
- Completion of an internship of at least 1,200 clock hours, as part of the training program under the supervision of an appropriately credentialed school psychologist and including a minimum of 600 clock hours in a school setting.
- Receipt of a passing score (currently 147) on the Praxis School Psychologist exam administered by Educational Testing Service.

Graduates of NASP-approved training programs automatically qualify to apply for the NCSP credential and to take the Praxis exam without a transcript review following completion of their graduate programs. However, the NCSP is not limited to graduates of NASP-approved programs. Individuals who graduate from any recognized school psychology graduate training program may be approved to take the national exam and ultimately receive the NCSP credential if they can demonstrate that their program included the appropriate amount and types of coursework, practicum, and internship experiences. Coursework requirements are explicit in the NCSP criteria, based on the NASP professional service domains noted earlier in this chapter. The process for making a determination of eligibility in such cases is the responsibility of the NSPCB.

According to Hunley (2004), the NCSP enjoyed an initial burst of popularity following its establishment in 1988, but interest appears to have

leveled off somewhat. Currently about two-thirds of school psychologists who are NASP members have the NCSP credential (Goforth, Farmer, Kim, Naser, et al., 2021). Despite the less than universal interest in the NCSP, there are some practical reasons that recent graduates may wish to pursue the NCSP credential. For starters, the NCSP may be viewed favorably as an indication of one's commitment to professionalism when seeking employment or advancement in the field. Perhaps more importantly, the NCSP has slowly emerged as a standard for many state departments of education to accept when applicants from other states apply for a license or certificate to practice in that state. According to NASP (2020a) data, close to 16,000 school psychologists had an active NCSP credential as of June 2020, including 1,263 who received the NCSP over the past year. A total of 33 states are listed on the NASP website (www.nasponline.org/standards-and-certification/national-certification/why-become-an-ncsp) as recognizing/accepting the NCSP for state credentialing purposes.

State Board of Examiners in Psychology License

Obtaining licensure for the independent practice of psychology and for use of the title “psychologist” (as opposed to “school psychologist”) requires that one have a doctoral degree in psychology and meet the specific application and approval requirements of a state board of examiners in psychology. Independent practice as a psychologist is sometimes confused with the term *private practice*. Although it is true that psychologists in private practice settings are independently practicing as psychologists, independent practice is not limited to these situations. Psychologists who work in public and private hospitals, clinics, health care organizations, community mental health centers, college and university counseling centers, and various other settings are also engaging in the independent practice of psychology—that is, they are using the term *psychologist*, offering psychological services to the public, and are not required to work under the supervision of another licensed psychologist in order to engage in these activities. By contrast, the

term *school psychologist* is recognized in the psychology licensing laws of most states as applying to those who have a state department of education credential in school psychology and whose practice is limited to school settings. As described in [Chapter 2](#), these licensing and terminology differences have long been a point of contention between NASP (which advocates for specialist-level school psychologists being able to engage in independent practice) and APA (which advocates that independent practice as a psychologist be limited to those holding a doctoral degree).

It is important to understand that neither NASP nor APA “owns” or regulates the terms *school psychologist* or *psychologist*, nor are there any federal laws dictating how these professional descriptions are to be used. Rather, legal regulation is the domain of states and provinces. Aside from contacting specific licensing boards, the best source for general information on state licensure for independent practice is the Association of State and Provincial Psychology Boards (ASPPB; www.asppb.net), an organization that coordinates and supports board licensing efforts among the states and provinces and that maintains an extensive website with information about these processes. Although there is some variation in the licensure requirements established by specific state boards, there are also many similarities. In most cases, being recognized as a licensed psychologist for independent practice requires:

- A doctoral degree in psychology.
- Completion of at least 2 years of supervised (by a licensed psychologist) psychology practice experience. In most cases, at least 1 of the years must be at the postdoctoral level; however, an increasing number of states are not requiring supervised postdoctoral hours as long as the applicant has sufficient supervised experience at the predoctoral level.
- A passing score on the Examination for Professional Practice in Psychology (there is no universal standard for passing scores; each

state or province establishes its own criteria for passing, although the ASPPB recommends a score of 500, which is 70% correct).

- A passing score on a state or provincial jurisprudence (law and ethics) exam administered by the board and, in some cases, an oral exam or case presentation to the board.

Despite the commonalities in requirements among state and provincial licensing boards, it is not a given that psychologists who are licensed in one state will automatically qualify for licensure elsewhere, and the process of obtaining licensure in a new area is sometimes complex and time-consuming. However, a recent effort of ASPPB has been to establish a procedure for making license reciprocity among states and mobility for psychologists easier than it has been in the past. This procedure involves registering one's credentials with ASPPB and obtaining their Certificate of Professional Qualification (CPQ) in psychology, which is currently accepted for licensure in 43 states or Canadian provinces, accepted to a more limited extent by 11 states, and under consideration by two other states. An early-career licensed psychologist who anticipates the possibility of needing to have geographic mobility for several years may find the CPQ to be quite useful.

Given the apparent complexity of obtaining licensure for independent practice as a psychologist, why would a doctoral-level school psychologist who already has a state department of education credential in school psychology want to go through this process? The major benefit is that an independent practice psychology license allows school psychologists to practice in nontraditional or non-school settings (e.g., clinics, hospitals, community health centers, private practice groups) where their training in school psychology may allow them to provide unique services. Other benefits include the role expansion that such opportunities provide to school psychologists and the impact that school psychologists may be able to make in settings in which they may be the only professionals trained in their specialty.

Specialty Credentialing

In addition to the basic licensure and certification types just described, various additional opportunities exist for school psychologists to receive recognition for their particular areas of competence, especially at the doctoral level of training. For example, the American Board of Professional Psychology (ABPP; see www.abpp.org for more information) has established processes for board certification in 15 different specialty areas of doctoral-level training, including school psychology. Some school psychologists with particular skills and interests in applied behavior analysis have obtained certification from the Behavior Analyst Certification Board (BACB; see www.bacb.com for more information), a credential that is available to master's- and specialist-level practitioners, as well as doctoral-level practitioners (and that includes fields other than psychology), that requires specific coursework and supervised experience in behavior analysis. Other specialty credentials and recognition programs are also available. Specialty credentials are usually not required for specific employment as a school psychologist, but they can serve as evidence to potential employers and the public that one has acquired specialized expertise.

Continuing Professional Development

Given the great effort required to get admitted to a graduate program in school psychology; to successfully complete the program; to complete a 1-year supervised internship; and to receive a certificate, license, or other credential for the practice of school psychology and specialty areas, it is often surprising to new school psychologists that they are not really ever “done” with their educational training and professional development. On the contrary, continuing professional development (CPD) is an important part of being a school psychologist. CPD is not only considered to be an important value within the profession but, in many cases, is required for maintaining practice credentials. In thinking about the importance and necessity of CPD, consider that new knowledge and techniques are constantly emerging in the field of school psychology and that what may have been best practice 10 or 20 years ago may currently be considered obsolete.

State boards of education vary in their specific requirements for renewal of school psychology certificates or licenses. These credentials are typically issued for a specified number of years—for example, 3–5—with the stipulation that the recipient must show evidence of meeting specified CPD requirements before the credential is renewed for another period of time. Some states require a minimum number of years of professional employment during the credential period for it to be renewed. Some states require completion of a specified minimum number of clock hours of approved CPD activities (such as workshop or conference attendance). Some states have both experience and training requirements for credential renewal. NASP’s NSPCB requires renewal of the NCSP certificate every 3 years, a process that requires documentation of 75 clock hours of CPD activities during the 3-year time period. State and provincial psychology licensing boards vary somewhat in terms of their requirements for license

renewal, but a typical approach is to require documentation of a minimum of 40 clock hours of approved CPD activities (e.g., graduate coursework or approved professional training workshops) for every 2-year renewal cycle. In each of these instances, credential renewal requires not only documentation of the required activities but also completion of an application form and payment of a renewal fee.

CPD activities can take a variety of forms, and each credentialing body has its own specific rules governing what activities are acceptable. The most common CPD activities include attending professional workshops or taking graduate-level continuing education courses from school psychology programs or related professional training programs. The annual NASP and APA conventions provide a wealth of opportunities for professional training and development, as do most state affiliates of NASP and APA at their own annual or semiannual conferences. Both NASP (<https://nasp.inreachce.com>) and APA (www.apa.org/education/ce) also offer webinars, online workshops, and other trainings for CPD purposes. In addition, many regions, particularly large metropolitan areas, have numerous opportunities available for attending in-person professional training workshops in the education and mental health fields.

Discussion Questions and Activities

1. If you are currently a graduate student in a school psychology training program and are using this book as part of an introductory school psychology course, discuss your own process of learning about the field and making the decision to apply to graduate training programs in the field. Why did you select school psychology over other areas of professional psychology (clinical or counseling) or over other professions within the field of education? Why did you choose to enter the particular graduate training program where you currently study?
2. Using the Internet, locate the standards for training programs in school psychology in the documents from APA and NASP that are referenced in this chapter. Review and evaluate the requirements for specific areas of coursework and field experience for accredited programs. Do you consider these requirements to be sufficient? Do you think that the requirements should be more specific or more general than they are currently?
3. Although the debate regarding the appropriate entry level of training required to become a school psychologist (specialist level or doctoral level) has raged for years, there has not been a substantial increase in the percentage of doctoral-level school psychologists, who currently make up only about 25% of the professionals in the field. What are the issues and practical considerations that have resulted in little change in the entry-level debate or status of the field over the years?
4. Go to the APPIC website (www.appic.org) or to recent issues of NASP *Communiqué* or other professional newsletters and study the internship opportunities available to specialist-level and/or doctoral-level students in school psychology. What are the elements of postings that make them attractive or unattractive to potential applicants?
5. Increasingly, school psychologists are required to engage in specified CPD activities to keep their practice credentials current. What are the advantages and disadvantages of typical methods of professional development training (e.g., attending workshops and conferences)? Are there possible alternative methods of CPD for school psychologists that should be considered as evidence of meeting recertifying requirements?

¹ The information appears in a document titled *Student Admissions, Outcomes, and Other Data*, available on all APA-accredited school psychology websites.

Chapter 6



Working as a School Psychologist

Employment Trends, Opportunities, and Challenges

In the previous chapters, we outlined general issues regarding the field of school psychology. In this chapter, we focus more specifically on the job of a school psychologist and address the following questions: How does one obtain a job as a school psychologist? In what settings are school psychologists employed? What functions or roles do school psychologists serve? Who are school psychologists? and What is the job outlook in the field of school psychology? There are some encouraging trends in the field of school psychology. Notably, the job market in school psychology continues to remain quite favorable for those seeking employment in the field. Particularly in certain areas of the United States, the shortage of school psychologists that became evident in the 1990s shows few signs of remitting. The economic climate through much of the United States has improved since the last edition of this book when many states were forced to make cuts (or not add money even with a growing student body population) to their education budgets. Another encouraging trend is the expansion of the function of school psychologists. In line with the problem-solving model discussed in [Chapter 3](#), more and more school psychologists are actively involved in the implementation of multi-tiered systems of support (MTSS),

a role that has continued to expand from early response to intervention (RTI) models focused more on academics to comprehensive models that focus on academics, as well as social–emotional and behavioral outcomes. Although school psychologists continue to be very involved in assessment activities, there is an increasing focus on consultation, intervention, and prevention activities. Given the current status of the field, we believe it is an exciting time to be a school psychologist.

Obtaining a Job as a School Psychologist

Upon completion of graduate school, individuals with specialist-level degrees (i.e., those who have completed a graduate program that consists of at least 60 semester credit hours) and doctoral degrees in school psychology are prepared to enter the workforce. Those with specialist-level degrees are most commonly employed in public school districts as school psychologists. Prior to obtaining a job as a school psychologist, an individual must obtain a credential or educator licensure through the state's office/department of education (see [Chapter 5](#) for more details on this process). The search for a job typically begins toward the end of a student's internship year. Students may desire to continue to work in the districts in which they completed their internships. For such students, it should be easy to identify whom to contact within the school district to inquire about job opportunities. In fact, in some school districts (especially in areas in which there are shortages of school psychologists), there may be an expectation on the part of the district that the intern will stay on as an employee of the district.

For students wishing to find employment in a different district or another state, the process of identifying districts with job openings can be somewhat more complex. Unfortunately, the field of school psychology does not have a centralized process for posting available positions. Thus, individuals seeking employment need to use various methods to locate districts with open positions. Almost all job postings appear online in some format. For example, NASP maintains a career center as part of its website (<http://nasponline-jobs.careerwebsite.com>), where employers can post jobs and job seekers can search the listed postings. Recent searches of this site reveal over 1,000 job postings for school psychologists. In addition, job sites, such as Indeed (indeed.com), carry listings with large numbers of school psychology positions. For those seeking employment who know the state in which they would like to work, the websites of the state school psychology

associations or individual school districts may be some of the best places to locate open jobs. A quick perusal of several of these websites revealed that many had sections in which jobs were posted, and all that had jobs posted had multiple postings. Beyond these methods of searching for positions, school psychology program training directors are often sent job announcements to share with their students, and many of these announcements are also sent to college or university career planning centers.

Students can also be proactive in inquiring about the possibility of job openings by contacting school districts in which they are interested in working and inquiring as to whether there are open positions or whether it is *anticipated* that there may be open positions for the following school year. However, determining who one should contact can be confusing, and this contact person often varies by school district. In many districts, it is the special education director or coordinator who provides this information. In other districts, it may be someone in the human resources or personnel offices. In some districts, especially those that are quite small, the primary contact person may be the superintendent or someone in the superintendent's office. If a prospective job applicant is unsure who the best person is to contact initially, a good course of action is to contact one of the district's school psychologists to inquire as to whom is the appropriate contact person with respect to job openings.

Contacting current school psychologists can also be beneficial to applicants who are interested in obtaining more information regarding the practice of school psychology in a particular district. For example, applicants might ask about expected school loads (i.e., the number of schools assigned to each school psychologist), adoption of the MTSS model, typical number of evaluations completed, ability to engage in intervention and consultative services, and general work atmosphere of the district. Generally, students can contact a district's school psychologists by calling the school district office or searching the district's website. Some school psychologists may be housed in a central district office location. Others may

have offices in their assigned schools. Even for those with school-based offices, district office personnel should be able to provide information on how to best reach a school psychologist.

After finding the appropriate contact person in a school district, the applicant will likely be able to ask about the procedures involved in applying for a job in that district. Typically, an online application must be completed. Along with this, applicants are typically asked to provide a curriculum vitae or resumé, as well as names of references. School districts often, although not always, want formal letters of recommendation from individuals with whom the applicant has worked. Some school districts have their own recommendation forms (usually online) that must be completed by the applicant's references. These recommendations should be completed by professional contacts who can attest to the applicant's skills and potential for excellence in all aspects of the practice of school psychology. For individuals just out of graduate school, we recommend that applicants seek one reference letter from their internship supervisor. Other recommendations will likely be obtained from graduate school faculty and practicum supervisors. If recent graduates have formed good working relationships with school administrators at their internship sites, such as a building principal, it may be useful to seek a letter of reference from that person as well.

In addition to the application and recommendations, school districts typically conduct interviews with job applicants. Applicants should prepare for these interviews by learning about the district and having specific questions to ask. In a pool of applicants in which many may seem comparable on paper, the interview can be the deciding factor in terms of who is offered the job. Interviews vary widely in terms of formality and questions asked. However, all applicants should be prepared to answer basic questions regarding their background in school psychology, perceived strengths and weaknesses, and their view of school psychology. Interviewers may ask applicants to respond to case scenarios. These can be intimidating for applicants, and, unfortunately, there is no specific way to prepare for

such questions. By being familiar with best practices, applicants should be able to successfully answer questions of this nature. In addition, conducting mock interviews with program faculty and peers may help students increase confidence and ability to think quickly and respond with a well-reasoned answer.

In addition to identifying whom to contact regarding job openings in a given school district, applicants also need to know when to look for jobs. We recommend that individuals begin contacting school districts in mid-winter to early spring the year before they wish to begin employment. However, many school districts will be unsure of their funding situations and vacancy status at that time. Thus, they will not be in a position to make job offers until later in the academic year. Many school districts will not even begin interviewing until later in the year; some may not begin the interview process until as late as May, close to when the school year is ending. Some districts may interview earlier in the year but then not make job offers for several months. Because this process is so variable by district, we recommend contacting districts earlier rather than later so as to not miss out on applying for a job simply because application materials were not submitted early enough. That said, applicants should not worry if they are told that a district is unsure of its ability to hire and will not know whether there are open positions until later in the spring. Although this type of response can be anxiety provoking for students who want to know whether they will be gainfully employed the following year, such a response is typical in many districts. As discussed later in this chapter, there has been an ongoing nationwide shortage of school psychologists. Given that shortage, it is highly likely that applicants who are not completely place bound (i.e., in need of a job in one specific district or geographical region) will be able to locate a job. In fact, our experience is that well-qualified, geographically mobile applicants often receive several job offers!

Obtaining a Job in a Non-School Setting

Individuals with doctoral degrees have more options than those with specialist-level degrees in terms of where they can find employment. The K–12 schools are perhaps the most common source of jobs for doctoral-level school psychologists, as well as specialist-level school psychologists. For doctoral-level school psychologists wishing to work in the schools, the process of locating a job is identical to that previously described. In most school districts, there is no differentiation in the hiring process between those with doctoral degrees and those with specialist-level degrees.

Doctoral-level psychologists may also find employment in university training programs and clinical settings, including medical centers, hospitals, and community mental health agencies. In addition, these individuals may elect to become licensed health service providers (i.e., licensed psychologists) and practice independently as a psychologist. Because most graduates of school psychology programs seek employment in public school settings, finding employment in each of these other areas is only briefly addressed below.

University Training Programs

Increasingly, job applicants for academic positions are finding jobs on HigherEdJobs (higherjobs.com). Almost all academic jobs (i.e., university faculty and administrative positions) are posted here. Other websites more specific to psychology and/or school psychology may also list open positions (although almost always these are also listed on HigherEdJobs). These include APA's *Monitor on Psychology* magazine and its online education and career center (www.apa.org/careers/index.aspx), as well as NASP's online career center referenced earlier. In addition, prospective trainers would do well to stay in touch with their university training directors and faculty, who

often receive postings for academic positions from other programs, which are increasingly being sent via e-mail listservs (e.g., the Trainers of School Psychologists mailing list: <https://tsp.wildapricot.org>; APA Division 16 mailing list: <https://apadivision16.org/subscribe-for-email-announcements/>). Open faculty positions are also commonly advertised on the Psychology Job Wiki at <http://psychjobsearch.wikidot.com> (see the “School” section).

Unlike school-based positions, which often do not open until later in the school year, university faculty positions are advertised early (generally starting in the fall and continuing through early winter of the year before the position is to begin). Thus, for individuals seeking faculty positions directly out of their doctoral programs, the job search process begins almost immediately after beginning the internship year. Within each announcement for a faculty position is a list of materials applicants must submit in order to apply for the position. A letter of application and a curriculum vitae are standard materials that are requested. Universities may also want transcripts, copies of published articles, teaching and/or research statements, a statement related to diversity and inclusion, teaching evaluations, or other materials that demonstrate the potential for excellence as a faculty member. Universities almost always utilize online application programs and applicants should be sure to submit their materials in the format requested when applying for jobs. It is the responsibility of the applicant to ensure that materials are formatted as intended. We have encountered situations in which application materials are unreadable due to formatting issues on the part of the applicant—not a good way to make a good first impression! Letters of recommendation are typically required and may need to be uploaded to a job site by the recommender or sent directly to the search committee chair. However, some universities may simply want names of references, who the search committee members will then contact via phone.

University positions typically involve a combination of research, teaching, and service activities, but different universities place different emphasis on these domains. Typically, specialist-level programs place less

emphasis on research than do doctoral-level programs. Because of the decreased emphasis on research, teaching loads in specialist-level programs are often higher than teaching loads in doctoral programs. In addition, service expectations may vary greatly depending on the university and individual departments. Although all universities have some faculty service expectations (e.g., sitting on university and departmental committees, providing service to the local community or profession), the extent of service expected varies greatly from department to department. Applicants should consider these differences and apply for positions that they believe are most suited to their interests and strengths.

Applicants for faculty positions should also keep in mind that “fit” (in terms of program philosophy and program needs) is an important quality in applying for academic jobs. It is important that applicants state clearly in their letters of application how they believe they might fit with the training program to which they are applying for a faculty position. Individuals should not apply for positions for which they perceive they are a poor fit. For example, if a job announcement indicates that the university is looking for a faculty member whose research involves behaviorally based interventions in the schools, it is unlikely that an individual whose research involves neuropsychological assessments for children with traumatic brain injury would be a good fit for the program. It is important that applicants consider fit not just in terms of whether they would be competitive for the job but also in terms of whether they would enjoy the job. Teaching outside of one’s area of interest or working within a department in which the program philosophy differs substantially from one’s own philosophy can make for a difficult job experience and an unhappy work situation.

When evaluating available academic positions, applicants should also seek to understand the supports available to them in the programs to which they are considering applying. As mentioned in [Chapter 5](#), the demands on a university trainer are many. It is imperative that new faculty have good sources of support. This support may be partially provided by individuals outside of the university (e.g., a former graduate school advisor), but

applicants for faculty positions should also assess support from within the program they are considering joining. For example: Are colleagues friendly and easily accessible? Are administrative personnel (e.g., department head, dean) supportive of the program and its mission? Are new faculty paired with experienced faculty mentors to help them navigate the complexities of academic life? Taking the time to investigate these supports can be invaluable to applicants in choosing the position that is right for them.

Clinical Settings

For individuals who desire to work in a clinical setting, such as a community mental health center, children's hospital, or specialty clinic, it may be critical to first complete a postdoctoral fellowship. To practice independently in such settings, a license as a psychologist is necessary. In most states this requires the completion of supervised postdoctoral hours, although increasingly states are allowing all or many of the supervised hours to be completed at the predoctoral level (including Alabama, Arizona, Connecticut, Indiana, Kentucky, Maryland, Missouri, North Dakota, Ohio, Utah, Washington, and Wyoming). Thus, individuals who have just graduated from a doctoral program may not yet be eligible for licensure. For current information on licensing requirements in all U.S. states and Canadian provinces, see the licensure requirement information on the website of the Association of State and Provincial Psychology Boards (www.asppb.net/page/psybook). Some clinical settings may hire a person and provide the supervision necessary to complete postdoctoral hours if needed, but other settings want applicants to have already achieved licensure. A postdoctoral fellowship is one way to obtain these hours to become eligible for licensure prior to applying for a full-time clinical position. Not only do postdoctoral positions allow individuals to accrue supervised hours toward licensure but such positions also allow individuals to obtain specialty training in certain areas (e.g., child neuropsychology, pediatric obesity). Although postdoctoral positions are by no means a required part of training,

they do seem to be becoming more common in the applied fields of psychology, including school psychology. In addition to having the necessary clinical hours, to become licensed as a psychologist, individuals have to pass the Examination for Professional Practice in Psychology and the jurisprudence (i.e., legal) exam in the state in which one seeks licensure.

Jobs in clinical settings, as well as postdoctoral positions, may be advertised in a variety of places, including the APA and NASP websites, as well as places like Indeed. In addition, APA now accredits postdoctoral programs (as they accredit doctoral training programs and predoctoral internships). A list of postdoctoral programs accredited by APA can be found on the APA website (see www.apa.org/ed/accreditation/programs/accred-postdoc.aspx). The Association of Psychology Postdoctoral and Internship Centers (APPIC) also maintains a searchable list of postdoctoral programs approved by APPIC (see www.appic.org). Although lists of postdoctoral programs are growing, informal networking (via faculty and internship mentors, as well as their contacts) may be needed to locate postdoctoral positions. Because clinical positions tend to be year-round jobs, there are no specific times of the year when most jobs are advertised, although for postdoctoral positions posted on the APPIC website, most application deadlines are in January or February (to start in the summer or fall of that year). We recommend that individuals who desire a clinical position begin searching for these positions in the late winter or early spring of their internship year.

Although there are no specific qualifications (other than licensure) to work in most clinical settings, as with university positions, applicants should consider their “fit” with positions and how their prior training and interests match with the described job. For example, if applicants have no prior training working with children with autism, it is highly unlikely that they would be hired to fill a position in which this population was a large focus of the clinical work. Individuals should take care to tailor their practicum, internship, and postdoctoral experiences (if any) so that they receive both

the breadth and depth of experience that will prepare them for clinical jobs in their areas of interest following graduation.

The Work Setting

Although school psychologists, particularly those trained at the doctoral level, have the credentials to work in a number of different settings, the majority of school psychology graduates work in the public schools. According to data obtained from the 2020 NASP membership survey (Goforth, Farmer, Kim, Naser, et al., 2021), of those school psychologists who reported their function, 82.0% reported working as school psychologists. The next most common function reported was that of a university faculty member (4.8%), followed by administrator (3.8%). It should be acknowledged that these numbers likely underestimate the percentage of school psychologists working outside of school settings and those working in roles other than that of school psychologists, given that these numbers are based on responses to a NASP membership survey. It seems likely that individuals trained as school psychologists but no longer functioning in a school psychology-related role would be less likely to maintain their membership in NASP. In addition, although this survey was completed by 1,308 NASP members, this is still a small percentage of total NASP members.

Even within the school-based work setting, a great deal of variability exists (as well as variability in the roles and functions, discussed later) for school psychologists. For example, most school psychologists serve or are assigned to multiple schools. Some of these school psychologists are based out of a central district office (where they typically have their own office space) rather than having school-based offices, whereas others may have school-based offices at their different schools. In addition, some school psychologists serve or are assigned to just one school, allowing them to become a part of that school's daily workings and culture.

School psychologist-to-student ratios vary considerably and affect the services that a school psychologist is able to provide. Currently, NASP

recommends that the school psychologist-to-student ratio should not exceed 1:500 and should be lower if school psychologists are working with students with more intense needs (NASP, 2020b). However, the mean ratio reported by school psychologists in the 2020 NASP membership survey was 1:1,233 (Goforth, Farmer, Kim, Naser, et al., 2021). As Fagan (2014) noted, the mean school psychologist-to-student ratio has steadily declined over time (e.g., in 1984 the ratio was 1:2,300), so although the ratio is not yet at the recommended level, it does appear that progress is being made—even if it is slow. The findings reported by Goforth, Farmer, Kim, Naser, and colleagues (2021) also support this, with fewer school psychologists over the years reporting very high ratios of above 1:2,000.

Salaries for school psychologists compare favorably with those of other service-oriented professions, especially when one considers that most school psychologists work on 9- or 10-month contracts. According to data from the 2020 NASP membership survey (Goforth, Farmer, Kim, Naser, et al., 2021), average salaries for school-based school psychologists ranged by region of the United States, with the highest mean salaries in the West (\$84,198) and Northeast (\$82,763), followed by the Midwest (\$74,745) and South (\$71,283).

School Psychologists in Nontraditional Settings

As noted earlier, a small portion of individuals trained as school psychologists do not work in school settings or are not employed as school psychologists. However, it is almost impossible to obtain data specifically on what these individuals are doing given that most surveys of school psychologists are geared toward those working in more traditional school settings and that most survey samples are drawn from NASP's membership list. As discussed in previous chapters and later in this chapter, increasing emphasis has been given to the expansion of the role of the school psychologist. With this role expansion, and as school psychologists become increasingly recognized as providers of comprehensive educational and

mental health services rather than solely as psychometricians, it is likely that the number of school psychologists working in “nontraditional” (i.e., non-school) settings will expand. Obviously, this role expansion also allows school psychologists to provide more comprehensive services within school settings.

The likelihood of doctoral-level school psychologists working in non-school settings is probably, in part, related to the settings in which the individuals completed their predoctoral internships. School psychology students who complete their predoctoral internships in non-school settings are probably more likely to choose similar settings for their permanent employment. Such individuals may also be more competitive for non-school positions than those who completed school-based internships, so students should be thinking ahead as they apply for internships in terms of the type of career they might eventually like to have. However, it can be more difficult for school psychology students (compared with clinical or counseling psychology students) to obtain internships in non-school settings because many non-school-based internship sites do not consider applicants from school psychology programs.

APPIC has the most comprehensive list of predoctoral internships (see searchable directory at www.appic.org). Programs are often added and removed from this list, but to give some sense of the programs available, in a recent search there were 806 programs listed overall, including 40 that list “school district” as an agency type. (It is important to keep in mind that each program typically has multiple internship positions.) Of these, 796 internship programs (including 681 APA- or CPA-accredited programs) consider applicants from clinical psychology programs, 729 (627 accredited) internship sites consider applicants from counseling psychology programs, while only 296 internship programs (238 accredited) consider applicants from school psychology programs. Of course, it should be acknowledged that these figures are for all internship sites (including those that focus on adults, as well as children) and school psychologists will most likely apply to those that focus on services to children. Narrowing the search of internships

to those that indicate they have a focus on children and/or adolescents, 387 (322 accredited) accept applications from clinical psychology program students, 333 (278 accredited) accept applications from counseling psychology program students, and 239 internships (195 accredited) accept applications from individuals in school psychology programs. This relative lack of alternative (i.e., non-school based) internship sites for school psychology students is concerning. It is likely that this furthers the perception that school psychologists predominantly engage in assessment activities and are not prepared to undertake other types of activities more often associated with clinical and counseling psychologists.

A study that is now somewhat dated, but we believe still relevant today, found empirical support for the idea that school psychology students may have more difficulties securing non-school-based internships (Gayer, Brown, Gridley, & Treloar, 2003). This was an analogue study in which the researchers sent internship training directors simulated internship application materials. The materials were identical, with the exception that one-third of the “applicants” were identified as being from clinical psychology programs, one-third from counseling psychology programs, and one-third from school psychology programs. The training directors were asked to indicate whether they would accept, reject, or “hold” the student. Clinical psychology students were most likely to be accepted, whereas school psychology students were most likely to be rejected. The acceptance rates were 66% for clinical, 48% for counseling, and 31% for school psychology students. The rejection rates were, respectively, 2%, 7%, and 40%. Findings such as these support the notion that the opportunities for school psychologists outside of the school setting may be more limited than for clinical and counseling psychologists. It is imperative that those within the field of school psychology increasingly advocate for themselves and our profession. We believe that schools and education should be the prominent focus within school psychology training programs, but at the same time we advocate for school psychologists being able to work in a variety of other

settings and decry stereotypes about school psychology that limit such opportunities.

A potential reason for the lower acceptance rates of school psychologists to non-school-based predoctoral internship sites may be the perceptions of strengths and weaknesses of school psychology students by internship directors. In a survey of internship training directors of sites that stated they accepted applications from individuals from school psychology training programs (Brown, Kissell, & Bolen, 2003), 31% of directors perceived individual and group counseling as a weakness for school psychology students even though this was the activity in which interns spent the most time. Educational assessment was perceived as a strength of school psychology interns by 56% of directors. Given this perception, it may be important for school psychology students who desire to complete an internship and/or work in a “nontraditional” setting to ensure they obtain sufficient intervention and other clinical experience while in graduate school.

In a more recent study involving a survey of internship training directors (Mahoney, Perfect, & Edwinston, 2015), when asked to rate their preference for clinical, counseling, and school psychology applicants on a scale of 1 (*not acceptable*) to 5 (*highly preferable*), school applicants averaged 2.55 ($SD = 1.42$), counseling averaged 3.06 ($SD = 1.17$), and clinical averaged 4.35 ($SD = 0.996$). In looking at factors that predicted a preference for school psychology applicants, importance of experiences with youth and having a supervisor with a school psychology background were related to a higher preference for school psychology students, whereas an increased value on individual therapy experience predicted a lower preference for school psychology applicants.

The Role and Function of School Psychologists

In addition to variations in the work setting and environment, there are also likely to be differences in the role and function of the school psychologist from state to state and even from district to district within the same state. As discussed in [Chapter 1](#), the definition of school psychology, as well as the role of the school psychologist, have changed over time. However, changes in practice may occur at varying paces and often lag behind philosophical changes regarding the practice of school psychology. The purpose of this section is to provide an overview of some of the stated roles and functions of school psychologists, as well as to provide some data on what school psychologists are actually doing.

School psychologists engage in a wide variety of activities—however, three activities are consistently identified as the main activities school psychologists perform: (1) assessment, (2) consultation, and (3) intervention. Within these broad areas, school psychologists engage in a variety of specific activities with an increasing focus on schoolwide collaborative approaches to comprehensively address academic, behavioral, and social–emotional needs of students. In the NASP brochure titled *Who Are School Psychologists* (available online at www.nasponline.org/about-school-psychology/who-are-school-psychologists), some of the numerous activities school psychologists may engage in with students, families, teachers, administrators, and community providers are outlined. These services include activities in each of the following areas: promoting positive behavior and mental health, supporting diverse learners, creating safe and positive school climates, strengthening family–school partnerships, and improving schoolwide assessment and accountability.

Student assessment and evaluation has long been identified as a primary function of school psychologists. As discussed in the historical context in

[Chapter 2](#), the role of assessment increased substantially for many school psychologists following the passage of Public Law 94-142 in 1975. With the advent of this law, guidelines were put into place that required certain assessment procedures to be followed prior to placing children in special education programs. School psychologists provided these assessments, and this function quickly took over all other functions for many school psychologists. Because federal and state laws required assessments to be completed, when resources were scarce in districts, school psychologists were often required to first complete these required activities before engaging in other activities. Unfortunately, school psychologists quickly began to be seen simply as psychometricians or “test and place” special education gatekeepers. Although school psychologists did engage in other professional activities, the vast majority of most school psychologists’ time was spent in assessment activities.

More recently, especially with the changes in special education law with the Individuals with Disabilities Education Improvement Act (IDEIA) passed in 2004 regarding the identification of specific learning disabilities (SLDs) (discussed in more detail in [Chapter 7](#)), school psychologists have seen some changes in their roles that we regard as positive. For many years, some school psychologists, as well as a number of school psychology trainers, advocated for school psychologists to function as comprehensive educational and mental health service providers (e.g., NASP, 2008). This call to engage in comprehensive mental health services has increased over time (e.g., NASP, 2015a, 2015b)—however, in reality, many school psychologists continued to engage most heavily in standardized assessment activities for the purpose of classification for special education services. For example, on the 2020 NASP member survey (Goforth, Farmer, Kim, Affrunti, et al., 2021), respondents were asked to rate the degree to which they engaged in various professional activities and 88% reported spending “quite a bit” or a “great deal” of time on evaluation tasks; the next highest area of practice was teacher consultation, with 64% reporting “quite a bit” or a “great deal” of time in this activity. With the passage of IDEIA 2004 and the possibility that

an RTI model could be used to identify students with an SLD, the field has increasingly moved toward a tiered model of services. Although many trainers and some practitioners had been advocating for this model for some time (e.g., Deno, 1986; Fuchs, 2003; Good & Kaminski, 1996; Tilly, 2008), it really was not until the term *response to intervention* appeared in law that this process became more widely utilized in schools throughout the country. In a report on RTI implementation in the 2008–2009 school year (Bradley et al., 2011), 70% of districts reported using RTI procedures for reading/language arts in elementary schools. Percentages were lower for other academic subjects (math = 47%, writing = 27%), as well as for behavior (36%). In addition, percentages of use were lower in middle schools and high schools compared to elementary schools. In terms of assessment for eligibility determination for special education in elementary schools, over half (53%) of the districts reported using both RTI and ability–achievement discrepancy data, whereas 35% used discrepancy data without RTI and 12% used RTI without discrepancy data.

While we certainly consider the shift toward the MTSS model, including RTI, as a positive one, this does not mean that we regard assessment activities as unimportant. Indeed, assessment is a critical activity within the problem-solving model we espouse in this book. However, the type of assessment data collected and how they are interpreted in problem solving is considerably different from standard intellectual ability (i.e., IQ) and achievement testing that have historically been associated with school psychology. Ideally, assessment should be conceptualized not as one specific activity but as a problem-solving, ongoing, and iterative *process*, as discussed in [Chapter 3](#). School psychologists receive referrals regarding children who are struggling academically, emotionally, and/or behaviorally. Prior to implementing any intervention, the school psychologist must conduct an assessment to determine what the problem is and what methods might be effective in remediating the problem. In some cases, the assessment may be utilized to help determine whether a student is eligible for special education services. In all cases, the assessment should help identify the specific

difficulties that are present and that preclude the child from learning or behaving as expected, so that appropriate remedial supports, strategies, and interventions can be adopted and incorporated to assist the student.

Assessment is an extremely valuable task that school psychologists perform. Without an appropriate, valid, and reliable assessment, it is difficult to correctly identify the problem, to know what intervention to use, and to determine whether the implemented intervention or support strategy is having the desired effect. Nevertheless, *assessment* is sometimes regarded as a bad word because, historically, many people (including many school psychologists) have considered the assessment process as simply the administration of a standardized measure or two and have failed to see it as part of the broader problem-solving context. We believe it is imperative that school psychologists develop a broader view of assessment and evaluation. With increased emphasis on multi-tiered models of assessment and intervention, we believe that this is starting to happen. As discussed in much more detail in [Chapter 3](#), school psychologists who engage in the problem-solving model of practice are continually using assessment in order to obtain the needed data to guide decision making at each stage of the problem-solving process. This type of assessment bears little resemblance to the standardized testing traditionally associated with school psychology. Assessment as part of the problem-solving process is key in guiding effective practice, and we are encouraged to see more and more school psychologists engaged in this type of assessment activity.

Consultation has also historically been a key part of school psychologists' roles, although to a lesser extent than assessment. Consultation is an indirect intervention method that is usually conceptualized as a triadic relationship (see [Chapter 11](#)). The professional (in this case, the school psychologist) works with a third party in the interest of changing the behaviors of the targeted client (i.e., the child who is referred). Within the school setting, the third party is typically a teacher or parent. School psychologists engage in teacher consultation more frequently than in parent consultation, likely due in part to the fact that teachers are at

the schools and are easier to access than parents. Consultative activities with teachers may include assisting in the development of a classwide behavior management plan and helping develop an academic intervention for a student who is struggling in reading. Parent consultation may involve working with parents on issues related to effective parenting and assisting parents in setting up programs at home to reinforce homework completion.

Some school psychologists also conduct systems-level consultation. In this form of consultation, the school psychologist does not work with one individual to promote changes in one child but instead works to bring about broader change. For example, the school psychologist may assist the school district in developing a new prereferral intervention process. This type of consultation has great potential to bring about changes that affect more than just one individual child. In addition, systems-level consultation work is essential in a multi-tiered model that focuses on developing prevention efforts that address the needs of all students at a universal level.

Unfortunately, school psychologists have traditionally spent most of their time consulting with parents and teachers regarding the individual needs of students who are already experiencing difficulties (i.e., indicated/tertiary intervention). Although this level of consultation should not be ignored, we are encouraged to see that school psychologists are expanding their roles to consult at classroom, small-group, and schoolwide levels to address primary and secondary prevention needs in addition to tertiary prevention and intervention efforts (e.g., Barnett, Ihlo, Nichols, & Wolsing, 2006; Reinke, Herman, Stormont, Brooks, & Darney, 2010; Reinke, Lewis-Palmer, & Merrell, 2008).

Within the intervention domain, school psychologists may engage in indirect or direct interventions, and these interventions may be conducted in group or individual settings. Indirect intervention is conducted via collaboration with important “others” in the child’s life (e.g., parents, teachers), as we described previously. For example, a school psychologist may run parenting groups concerning effective management of child behavior problems. School psychologists may also provide services directly

to students. For example, a school psychologist may work one-on-one with a student to alleviate symptoms of anxiety or depression that the student is exhibiting. Another direct intervention activity may involve running a social skills group to increase appropriate social behaviors in a group of elementary school children. As part of their intervention efforts, school psychologists may also engage in prevention activities. Prevention efforts may include developing schoolwide programs to decrease problems, such as bullying, and implementing early literacy programs. Although prevention activities are often conceptualized as occurring before any problems are noticed, prevention activities are probably most frequently put into place after problems are first identified but before they have reached a clinically significant level.

Ideal and Actual Roles

Although school psychologists are trained to practice assessment, consultation, and intervention, as well as other activities, such as research and program evaluation, historically there has been a discrepancy between the amount of time school psychologists report engaging in these activities and the amount of time they would like to spend engaged in these activities. Although school psychologists' roles do seem to be changing and broadening as multi-tiered systems of service delivery become more common, it is difficult to know at this point how much they will change and how closely they will align with school psychologists' ideal role.

Surveys of school psychologists' activities prior to the passage of IDEIA 2004 all document that school psychologists spent more time in assessment-related activities than in any other activities. For example, in a survey of approximately 400 school psychologists conducted in 1999, school psychologists reported spending on average 46% of their time in assessment-related activities. Consultation was reported to take 16% of their time and intervention (including interventions, counseling, and parent training) took 22% of their time (Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002). These findings are consistent with a study completed in the 1991–1992 school year (Reschly & Wilson, 1995) in which school psychologists reported that they spent most of their time (55%) in assessment-related activities, and another study completed in 1997 (Hosp & Reschly, 2002) in which school psychologists also reported spending the majority of their time (55%) in assessment activities and about 60% in eligibility-related services (e.g., conducting evaluations, attending individualized education program team meetings). In both of these studies, school psychologists reported that they would have preferred to spend less time in assessment activities and more time in direct intervention and consultative activities.

In a more recent study conducted in the 2009–2010 school year (Castillo, Curtis, & Gelley, 2012), school psychologists still reported that they were spending the most time in assessment-related activities, indicating that approximately 47% of their time was spent conducting special education evaluations (i.e., assessment activities) and that they completed an average of 27.3 initial special education evaluations in a year. Castillo and colleagues (2012) did note a downward trend in the number of initial evaluations completed from the 1999–2000 school year (39.9). They also reported that almost all school psychologists (96%) reported engaging in student-focused consultation but that overall only 16% of their time was devoted to consultation. About a quarter of school psychologists' time involved development and implementation of “intensive interventions” and close to 68% reported some involvement in individual counseling of students. These numbers are fairly consistent with the previous survey on practices from the 2004–2005 school year, wherein 96% reported that they engaged in consultative activities and 71% reported engaging in individual counseling (Curtis, Lopez, et al., 2008). Overall, the results from these surveys indicate that, although time in assessment activities seems to be decreasing, school psychologists are still spending more time in special education-related and assessment activities than in other activities.

Similarly, a nationwide study of school psychologists by Larson and Choi (2010) focused on roles pre- and post-IDEIA 2004. While school psychologists in this study estimated that more time was spent in assessment activities than other activities, the percentage did decrease from pre-IDEIA 2004 (55%) to post-IDEIA 2004 (47%). Small but significant increases in time spent in intervention (8–10%), preventative services (4–5%), and team collaboration (10–11%) were also noted.

In contrast to the studies cited thus far, in a survey of school psychologists in three midwestern states (Bahr et al., 2017), problem-solving consultation was rated as their top actual and top preferred role. In this survey, assessment activities were split across multiple areas—“report writing” was ranked as the second most common actual activity but was

placed 21st (of 25) in ordering of preferred activities. Mental health interventions were the ninth most common actual activity but placed as the second-most preferred activity.

Overall, current data seem to suggest that while other activities are increasing in frequency, assessment (and assessment-related activities) remains a common part of school psychologists' roles. We had hypothesized in the previous edition of this book that as RTI and MTSS procedures become more widely adopted, the school psychologist's role would continue to evolve—and while that seems to be somewhat the case, the change appears to be modest to date.

While actual activities engaged in by school psychologists may be changing only modestly, recent studies do provide some support for the notion that MTSS procedures are becoming more common. In a survey of practicing school psychologists regarding their districts' experiences with RTI and SLD classifications (Cangelosi, 2010), only 22% of participants indicated that their assessment and diagnostic practices had *not* changed at all following their state's adoption of the IDEIA 2004 regulations. More than 40% indicated that RTI information was taken into account “always” or “almost always” when evaluating a child for an SLD (with 10% indicating it was “never” taken into account). Interestingly, 83% indicated that results of cognitive assessment measures were “always” or “almost always” considered in making SLD determinations, and almost 70% indicated that a severe discrepancy between IQ and academic achievement was “always” or “almost always” considered.

In a survey of school psychologists in which they answered questions on various aspects of RTI (Sabourin, 2015), including how it changed their professional practices, 54% reported a decrease in administering individual, standardized academic assessments and 46% reported a decrease in time spent writing formal special education eligibility evaluations. Regarding activities that are commonly part of a multi-tiered model, about three-quarters of participants reported increased time in administering universal screening measures, evaluating intervention outcomes, and researching

evidence-based interventions (EBIs). However, in terms of actual involvement in activities, 43% of school psychologists in schools in which RTI was well established reported they “never” administered universal screening or progress monitoring assessments. Moreover, results from this survey indicated that school psychologists were more likely to be involved in making decisions about effectiveness of interventions (79% reported they “often” or “always” were), evaluating progress monitoring data (73%), making decisions about students moving between tiers (83%), and choosing interventions (62%). Relatedly, in an evaluation of job satisfaction among school psychologists in RTI schools and those in non-RTI schools (Bade-White, 2012), school psychologists who worked in RTI schools reported higher levels of job satisfaction compared to those working in non-RTI schools. In addition, school psychologists working in RTI schools were more likely to engage in individual counseling than those at non-RTI schools.

Graduate training of school psychologists may also be evolving to keep up with changes in the field and, as more recently trained school psychologists move into the workforce, perhaps we will see greater change in roles. In looking at roles related to training when different NASP standards were in place, it was found that school psychologists who graduated when NASP’s 1984 standards were in place only engaged in counseling approximately 4% of the time but those who graduated with NASP’s 2000 standards in place engaged in counseling approximately 13% of the time (Larson & Choi, 2010).

NASP has published several position papers in recent years that all support the multiple roles in which school psychologists can be involved. For example, there are position statements supporting the use of MTSS, and the provision of mental and behavioral health supports to students, as well as one regarding assessment. (See all NASP position statements at www.nasponline.org/research-and-policy/professional-positions/position-statements.) Given the emphasis from NASP, as well as the data suggesting that roles are continuing to expand, we expect to see this trend of greater

school psychologist involvement in intervention and prevention activities continue—while at the same time, a focus on assessment remains.

Demographic Characteristics of School Psychologists

Now that we have considered what school psychologists do and explored trends in their roles over the years, we turn to the topic of who school psychologists are. Although the youth and families served by school psychologists are an increasingly diverse group, school psychologists as a group are not very diverse. In general, school psychologists are predominantly female and White and hold specialist-level degrees. School psychologists are also increasingly an aging population (on average), leading, in part, to shortages of school psychologists as a result of retirements or the “graying” of the field.

Gender

According to data from the 2020 NASP membership survey (Goforth, Farmer, Kim, Naser, et al., 2021), 87% of school psychologists who are NASP members are female. However, the gender ratio has not always been so lopsided. Reschly (2000) reported that the number of women in school psychology has gradually increased since the early 1970s, when the gender ratio was tipped toward men (about 60:40). By the mid-1970s the gender ratios were more equal, and since the mid-1980s the field has become increasingly dominated by women. As demonstrated by data from NASP member surveys, there has been a steady upward trend in female representation in school psychology that has continued through 2020. This trend is not unique to the field of school psychology but, rather, seems to be reflective of an increased feminization of the field of psychology in general. A National Science Foundation (2021) report on doctoral recipients from U.S. universities indicates that in 2020, 72% of all doctoral-degree recipients in psychology were women, and women made up 73% of counseling

psychology doctoral recipients, 78% of clinical psychology doctoral recipients, and 87% of school psychology doctoral recipients (combined across psychology and education categories).

Interestingly, the gender ratios have been significantly different for university trainers or faculty in school psychology programs compared with the general population of school psychologists and school psychology students. Although women are increasingly represented in faculty positions, women do not outnumber men in these positions at the same rate as they do in practitioner positions. In the early 1970s, fewer than 20% of school psychology faculty positions were filled by women (Reschly, 2000). That percentage has changed over time so that currently trainers are more likely to be female—although still not at the rate of women in practitioner positions. Castillo, Curtis, and Gelley (2013) report that based on data from the 2009 to 2010 school year, 62% of school psychology trainers were female. This number is up slightly from the 2004 to 2005 data, wherein 60% of trainers were female, and up more substantially from the 1999 to 2000 data, in which 51% of trainers were female (Curtis, Lopez, et al., 2008). Although it is not clear why the gender ratios have been different for trainers versus students and practitioners, Reschly indicates that, historically, fewer women have applied for academic positions than have men, with only about 40% of the applicants for faculty positions being female. However, this appears to be changing. In Demaray, Carlson, and Hodgson's (2003) survey of programs with assistant professor openings and faculty members who filled these positions, of the 39 new hires who responded to the survey, 28 (72%) were female. Unfortunately, more recent data on faculty demographics could not be found but, as with the general trend for women in psychology, we expect that trainer positions will be increasingly filled with women.

Age

The median age of school psychologists has been steadily increasing through 2010 with a more recent dip in age seen in the 2015 NASP membership

surveys. The median age of practitioners increased from the mid- to late 30s in the late 1980s to the mid- to late 40s in the late 1990s (Reschly, 2000). Based on NASP membership data from 1990 to 2015, the mean age peaked in 2010 at 47.4 years and then dropped to 42.4 years in 2015 (Walcott & Hyson, 2018), with a slight increase to 43.9 in 2020 (Goforth, Farmer, Kim, Naser, et al., 2021). Interestingly, the average age of school psychology faculty is somewhat older than school psychologists in practice. Based on NASP data from 2009 to 2010, the average age of trainers was 51.5 years, whereas for practitioners it was 46.4 years (Castillo et al., 2014).

The percentage of school psychologists age 50 and older has also been increasing over time (from 1989–1990 to 1999–2000 to 2004–2005; Curtis, Hunley, & Grier, 2004; Curtis, Lopez, et al., 2008), with more than 40% of all school psychologists being 50 years or older based on 2005 data. In 2010, approximately 18% of school psychologists were age 60 or older (Curtis, Castillo, & Gelley, 2012), and in the 2015 NASP membership survey, there were only 12% who reported being 60 or older (Walcott & Hyson, 2018). School psychologists, as a group, are also reporting more years of experience over time. As reported by Castillo and colleagues (2014), the mean years of experience increased from 13.1 in 1995 to 16.3 in 2010. Interestingly, there are gender differences in terms of age and years of experience, with male school psychologists being significantly older (average age of 51 compared to 46 for females) and having more experience (average of 21 years compared to 15 for females; Castillo et al., 2013). This is likely a reflection of more women entering the field over time.

Ethnicity

Practitioners in school psychology tend to be overwhelmingly White, although this percentage has decreased over time. According to the 2020 NASP membership data (Goforth, Farmer, Kim, Naser, et al., 2021), approximately 85.9% of school psychologists are White, down from 94.0% in 1990. School psychologists from Latinx backgrounds have increased over

time and currently make up 7.6% of school psychologists. Black/African American school psychologists (3.9%), Asian/Asian American school psychologists (2.4%), and American Indian/Native Alaskan school psychologists (0.7%) continue to be underrepresented in the field. This underrepresentation of school psychologists of color is particularly stark when compared to the students they serve in schools (see [Chapter 4](#) for more on this topic). Based on recent census data, individuals from racially or ethnically minoritized backgrounds make up about 40% of the general population in the United States and 49% of children under age 18.

School psychology trainers and faculty are also predominantly White, with estimates that 90% or more of trainers are White/Caucasian (Castillo et al., 2013; Little, Akin-Little, Palomares, & Eckert, 2012). The percentage of students of color among school psychology graduate students is slightly higher, with estimates that 29% of doctoral students and 30% of specialist students are students of color (Gadke et al., 2021). In addition, students of color made up about 29% of 2020 doctoral graduates from school psychology programs and about 29% of doctoral graduates from psychology programs (National Science Foundation, 2021).

It is our observation that diversity of school psychology faculty helps greatly to enhance diversity within student recruitment and retention. Programs that specifically emphasize social justice and multicultural diversity within their curricula and mission statements, and that have faculty members of color, are often more successful in recruiting minority students to their training programs. As school psychology looks to diversify the workforce, it is essential that training programs support both the recruitment and retention of racially and ethnically minoritized students and faculty members. NASP, APA, various state-level organizations, and many university training programs have enacted initiatives during the past two decades to increase the racial and ethnic diversity of school psychologists. However, even with the increasing diversity of individuals entering the field, the profession of school psychology is not currently on

track to achieve anything like ethnic or racial comparability to the larger population of the United States in the foreseeable future.

Educational Level

Despite predictions that the field of school psychology would become increasingly populated with individuals with doctoral degrees, the specialist-level degree (EdS or a 60-credit master's degree or the equivalent) is still by far the most common highest degree that school psychologists report obtaining. According to the 2020 NASP membership survey (Goforth, Farmer, Kim, Naser, et al., 2021), 16.5% of school psychologists have doctoral degrees. This is not surprising given that there are many more programs at the specialist level than the doctoral level, with 32% of all school psychology programs being doctoral-level programs, as well as 33% of all students being enrolled in doctoral programs (Rossen & von der Embse, 2014).

Job Supply and Demand

As mentioned earlier, a shortage of school psychologists—of both practitioners and university faculty—has existed for a number of years. Such a shortage also existed in the late 1980s; it seemed to briefly remit but began increasing again in the mid-1990s. It showed no signs of remission through the late 1990s and early 2000s (Curtis, Grier, & Hunley, 2003; Curtis et al., 2004).

Although Curtis and colleagues (2003, 2004) estimated that the shortage of school psychologists would peak in about 2010, there continues to be a shortage of school psychologists in most areas of the United States. Based on data from 2019–2020, all regions of the United States had a “considerable shortage” or “some shortage” of school psychologists (American Association for Education in Employment, n.d.). Additionally, *U.S. News & World Report* listed school psychology as the second-best job in social services in 2020 and in the top 50 best jobs overall (<https://money.usnews.com/careers/best-jobs/school-psychologist>). This article notes, “A heightened awareness of mental health’s connection to learning and the rising need of mental health services are driving the demand for more school psychologists. However, this demand is tempered by state and local funding for schools, which is inadequate in some cases.”

The U.S. Department of Labor notes in its *Occupational Outlook Handbook* (U.S. Bureau of Labor Statistics, 2020) that employment for psychologists is expected to grow by 14% from 2018 to 2028. While statistics are not presented separately for school psychologists, the handbook notes that schools are one of the employment settings contributing to the growth. In addition, the report notes that “Employment of school psychologists will continue to grow because of the raised awareness of the connection between mental health and learning and because of the increasing need for mental health services in schools,” but that “Job opportunities may be limited,

however, because employment of school psychologists in public schools and universities is contingent on state and local budgets.”

Not only is there a good outlook for practitioner jobs but the outlook remains very positive for those school psychologists seeking jobs in academic settings as school psychology trainers and faculty. Although there are little recent data in this area, since late 1990s, jobs in university programs have frequently gone unfilled, with surveys indicating that one-quarter or more of school psychology training programs nationwide had openings for faculty members (Demaray et al., 2003; Little & Akin-Little, 2004). Of course, some of these openings are created by individuals switching jobs but staying within the academic sector. As Little and Akin-Little (2004) point out, just because there are a large number of job openings does not necessarily mean there is a shortage of trainers or faculty. However, both anecdotal and formal survey data make it clear that not all of the advertised open positions were filled. Of the training directors who responded to Demaray and colleagues' (2003) survey regarding assistant professor positions in 1998, 45 of the 60 job openings (75%) were reported to have been filled. In a survey of program directors (Clopton & Haselhuhn, 2009) looking at faculty openings in school psychology over 3 academic years (2004–2005, 2005–2006, and 2006–2007), 79% of program directors reported at least one opening in their program during those years. The mean number of openings across the 3 years was 1.84. The majority of these positions (88%) were reported to be filled, but the number of unfilled positions increased each year from eight in 2004–2005 to 11 in 2005–2006 to at least 13 in 2006–2007. Of course, the responses to these surveys do not represent all programs (91 program directors responded to the job-opening portion of Clopton & Haselhuhn's survey; 126 responded to Demaray et al.'s survey) and results are now somewhat dated. However, based on the consistency of these findings, as well as discussions currently among school psychology program directors, it seems safe to conclude that there are still many faculty positions in school psychology that are going unfilled.

The reasons for the shortage of trainers seem to involve several factors. Because of the rapid growth of the field in the 1970s and early 1980s, many of the faculty who have been with their programs since their inception are of retirement age. Thus, a number of individuals are leaving the field and retirements among university faculty are expected to continue at a high rate in the coming years (Castillo et al., 2014). However, this is only part of the problem. In both Demaray and colleagues' (2003) survey and Clopton and Haselhuhn's survey (2009), about one-third of the open positions were reportedly new positions. These positions may have been created as part of the increasing efforts of training programs to obtain NASP approval and/or APA accreditation (Little & Akin-Little, 2004). Another difficulty is that not all doctoral-level training programs focus on preparing students for possible academic careers. Of the 99 doctoral training programs identified by Little and Akin-Little (2004), 82 had at least one graduate in an academic position. However, since 1990, only 19 programs had more than one graduate in an academic position. Clearly, programs must do a better job of preparing and encouraging students to enter the academic world if the shortage of trainers is to remit. One difficulty that Little and Akin-Little hypothesized may influence the lack of interest in faculty positions is the perception that an academic job is much more difficult and demanding than a school-based practitioner job. Particularly when pay levels may not be all that different (and may, in fact, be higher for school-based professionals who have earned doctoral degrees), graduates of doctoral programs simply may not be interested in entering the academic world. Little and Akin-Little suggest that both adequate financial support in graduate school and increased mentoring may help create a more favorable outlook on academic jobs for potential future trainers.

The shortage of practitioners is likely tied, in part, to the shortage of university trainers. Without fully staffed programs, it becomes difficult for programs to maintain their student numbers, and increasing their numbers becomes even more difficult. Using 2010 data, Castillo and colleagues (2014) estimated that given retirements and other reasons for leaving the field

(which they estimated at 5% per year), even when including graduates entering the field, there would be shortages of school psychologists ranging from 1,000 to 1,500 through 2025, with the projected deficit decreasing over time. They noted, however, that these figures are relatively small given the large numbers of school psychologists (which they estimated at 42,593). However, they also noted that depending on student population increases, these numbers may be an underestimate of the overall shortage and could be as high as 3,500.

The shortage of school psychologists has not gone unnoticed by NASP or by Division 16 of APA. On the NASP website there is a *Shortages in School Psychology Resource Guide* (www.nasponline.org/resources-and-publications/resources/school-psychology/shortages-in-school-psychology-resource-guide) developed by the NASP Shortages Task Force. This document includes strategies for recruitment of practitioners and faculty. For example, recommendations for recruiting faculty into school psychology include strategies that target undergraduate students (“Foster a positive attitude toward school psychology research among undergraduates”), graduate students (“Prepare graduate students to be effective university instructors”), and institutions (“Implement family-friendly policies and programs for faculty members”). In the recruitment of practitioners, enlisting interest from as early as high school is discussed. Respecialization is also noted as a potential strategy to recruit more professionals into the field of school psychology. For example, other mental health or educational professionals could be encouraged to return to school to pursue training in school psychology. Such a return to school may be made more manageable if schools provide flexible programs for returning students and make use of technology to deliver some portions of the curriculum. Increasing cultural and linguistic diversity in graduate programs is also highlighted as an important aspect of overall recruitment.

While the concept of respecialization as a means of recruiting more school psychologists into the field has been around for a number of years, and it does seem to have become a little more common in recent years, it

still does not have a wide hold in the field. Information on whether a program offers a respecialization option is listed in the “School Psychology Program Information” section on the NASP website (<https://apps.nasponline.org/standards-and-certification/graduate-education/index.aspx>). Most programs listed on this website do not have a formal option for respecialization.

With the shortage of school psychologists expected to continue, now is certainly a good time to enter the field. While we hope the job market for school psychologists remains strong, we also hope that the shortage of school psychologists decreases so that more students can receive the services that they need.

Discussion Questions and Activities

1. Search for school psychology jobs using online searches, such as state school psychology association websites and local school districts. Locate jobs in your current state, as well as in states where you may wish to work in the future. How many jobs are listed? What are the differences in jobs in terms of salaries, requirements, stated duties, and so forth?
2. Talk with school psychologists who have been working in the field for some time. Have their roles changed over time? What percentage of their time is spent in traditional, standardized assessment activities? What percentage of their time is spent in consultation and intervention activities?
3. School psychology as a profession is dominated by White and female individuals. How do you think this might affect the provision of services to children in our public schools? How might school psychology training programs recruit and retain graduate students from more diverse backgrounds and with more diverse identities?
4. There has been a shortage of school psychologists for some time now. What is the job market like for school psychologists in your area? If possible, talk with local school district personnel to find out whether they are experiencing a shortage of school psychologists and, if so, how they are addressing the shortage.

Chapter 7



Legal and Ethical Issues in School Psychology

Numerous legal and ethical statutes guide the practice of school psychology. Within the legal realm of the United States, for example, federal legislation impacts the provision of school psychology services at a national level. In addition, state legislation and case law based on rulings from civil lawsuits (which may eventually be codified into state law) can impact the provision of services at the state level. Even services mandated by federal legislation can be delivered somewhat differently in different states, because individual states have some flexibility in how they implement federally mandated services, as long as they meet the minimum standard set forth in federal law. Because of this flexibility, as well as the numerous laws that are made at the state level regarding the provision of educational and psychological services, there will always be some variations in practice across different states. Given this, it is imperative that school psychologists become familiar with laws in the state (or province) in which they are employed. In particular, they should become familiar with their state's interpretation of federal special education legislation, as well as their state's statutes on the practice of psychology. At a federal level, school psychologists should be familiar with the legislation that governs the provision of special

education and other services within the schools, as well as those that cover general educational issues.

In addition to legal mandates, school psychologists must be familiar with the ethical codes that apply to the practice of school psychology specifically and of psychology in general. Ethical codes outline expected conduct in professional activities. Although ethical codes are aspirational in nature and are not enforceable by law, ethical violations may result in dismissal from professional organizations or revocation of professional licensure and may be the basis for civil malpractice lawsuits.

This chapter provides an overview of the federal U.S. legislation, as well as the ethical codes with which school psychologists practicing within the United States should be familiar. We have chosen to focus on U.S. legislation to illustrate how school psychology practice is influenced by ethical codes and legislation. Although it is beyond the scope of this book to cover laws and their structures in other countries, we encourage international readers to consider how legislation influences the practice of school psychology within their home country and/or province and also how governing laws might be similar or different from the U.S. laws described in this chapter. All school psychologists should recognize that laws often change and ethical codes are frequently updated. Because of this, it is important that school psychologists engage in continuing education activities to ensure that they are familiar with the most recent laws and ethical guidelines, and that they are practicing in a legally compliant and ethically responsible manner. In this chapter, we provide a brief overview of federal special education law and include discussion of case law that has impacted special education law. We also touch on other federal legislation that impacts the practice of school psychology. We end the chapter with an overview of ethical issues in school psychology.

Individuals with Disabilities Education Improvement Act 2004

The Individuals with Disabilities Education Improvement Act (IDEIA) 2004 is the federal special education legislation that mandates the provision of free and appropriate public education services to students with disabilities. This law was originally passed as Public Law 94-142 in 1975 and titled the Education for All Handicapped Children Act. Since that time, the law has gone through several major revisions or reauthorizations, including one in 1990 in which the name of the law was changed to the Individuals with Disabilities Education Act (IDEA); the additional “I” for “Improvement” was added in the last revision in 2004. In the following section, we provide background information on the development of IDEIA and its current provisions. [Table 7.1](#) provides a summary of the federal legislation discussed here. For those looking for a more comprehensive overview of some of these issues, *Ethics and Law for School Psychologists* (Jacob, Decker, & Lugg, 2016) is an excellent source.

TABLE 7.1. Timeline of Major Special Education and Related Legislation

1965	Public Law 89-10	Elementary and Secondary Education Act (ESEA)
		Under Title I of this act, school districts were provided with federal financial assistance primarily intended to assist in the education of children who were economically disadvantaged. Four other titles provided funding for other aspects of education, but children with disabilities were not specifically mentioned.
1965	Public Law 89-313	Elementary and Secondary Education Act

Amendments of 1965

Established grant programs for state-run schools and institutions for children with disabilities.

- 1966 Public Law 89-750 Elementary and Secondary Education Act Amendments of 1966
Amended Public Law 89-10 to include a Title VI to assist states in developing programs for students with disabilities.
- 1970 Public Law 91-230 Education of the Handicapped Act (EHA)
Replaced Title VI of ESEA. Provided grant programs for states to provide services to children with disabilities.
- 1972 Title IX of Public Law 92-318 Title IX of Education Amendments Act of 1972
Prohibited sex- and gender-based discrimination in educational programs that received federal funds.
- 1973 Public Law 93-112 Rehabilitation Act of 1973
Included Section 504, which prevents discrimination by public agencies based on a disability. Mandates that schools provide free, appropriate education to students with disabilities. No funding attached to this mandate.
- 1974 Public Law 93-380 The Education Amendments of 1974
Reauthorized ESEA and EHA. Increased financial assistance to states to provide services to children with disabilities. Federal aid for programs for students with disabilities was dependent on states enacting plans to educate students with disabilities.
- 1974 Public Law 93-380 Family Educational Rights and Privacy Act (FERPA)
Protects the privacy of children's educational records. (Part of Education Amendments of 1974.)
- 1975 Public Law 94-142 The Education for All Handicapped Children

Act

The landmark federal legislation that guaranteed children with disabilities the right to a free, appropriate, public education.

- 1986 Public Law 99-457 The Education of the Handicapped Act Amendments of 1986
Mandated special education services for children ages 3–5 with disabilities and provided financial incentives for states to provide services to children with disabilities ages birth–3.
- 1990 Public Law 101-336 Americans with Disabilities Act (ADA)
Prohibited discrimination against individuals with disabilities by public and private organizations.
- 1990 Public Law 101-476 Individuals with Disabilities Education Act (IDEA)
Amendment and reauthorization of EHA. Name changed to IDEA. Mandated transition services. Added autism and traumatic brain injury as disability conditions.
- 1997 Public Law 105-17 Individuals with Disabilities Education Act Amendment and reauthorization of Public Law 101-476 (IDEA).
Strengthened rights of parents.
- 2001 Public Law 107-110 No Child Left Behind (NCLB) Act
Reauthorization of ESEA. Increased school accountability.
- 2004 Public Law 108-446 Individuals with Disabilities Education Improvement Act (IDEIA)
Amendment and reauthorization of IDEA.
- 2010 S. 2781 Rosa’s Law
Amended a variety of educational laws (including IDEIA) to strike “mental retardation” and replace with “intellectual disabilities.”
- 2015 Public Law 114-95 Every Student Succeeds Act (ESSA)

Reauthorization of ESESA/NCLB. Continued focus on accountability and high standards with greater flexibility for states.

Background on Special Education Law

Under the U.S. Constitution, education is not a fundamental right of the citizens of the United States. However, the 10th Amendment to the Constitution provides that “powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States.” Thus, the duty of education has been left to individual states, which provide education as an entitlement: All children have a right to an education provided by the state within which they reside. States must provide this education in a manner that is consistent with the principles outlined in the U.S. Constitution. In particular, the 14th Amendment to the U.S. Constitution provides for both *equal protection* (states cannot deny a person equal protection under state law) and *due process* (states cannot “deprive a person of life, liberty, or property, without due process of law”) to all citizens. States may not enact laws that infringe on the rights of citizens, including their right to an education, which is considered a property right. Furthermore, if a state does intend to take away any rights, there must be a procedure in place to guarantee that the rights of the person are not being violated (i.e., due process). However, prior to the passage of Public Law 94-142, many students with disabilities were excluded from public schools without any consideration of their rights. Children who were considered to be unable to benefit from a public education (including those with significant disabilities) were prevented from enrolling in school. Many of these children remained at home with their parents, others were institutionalized, and a small portion received education in a private school setting (Jacob et al., 2016).

In 1954, the U.S. Supreme Court ruled in the landmark case of *Brown v. Board of Education* that separate educational facilities for racial-minority children were “inherently unequal.” The court ruled that state laws that

required or permitted segregation of students in schools based on race were unconstitutional because they violated the equal protection clause of the 14th Amendment. Based on this ruling, states were required not to limit access to any schools based on race. Although this case did not mention students with disabilities, following the *Brown* ruling, parents of children with disabilities filed lawsuits using the same argument: that the denial of a public education to children with disabilities was a violation of their constitutional rights based on the equal protection clause of the 14th Amendment.

Two important court cases—*Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania* (1971, 1972) and *Mills v. Board of Education of District of Columbia* (1972)—were key in the eventual granting of educational rights to all students regardless of their disability status. We briefly review these cases here.

In the *PARC* case, attorneys for the parents of 13 children with intellectual disabilities (termed *mental retardation* at the time) who had been excluded from the public schools argued that the exclusion of these children violated their constitutional rights under the 14th Amendment. In a consent decree (i.e., the involved parties consented to a court-approved agreement), the Commonwealth of Pennsylvania agreed to provide “access to a free public program of education and training appropriate to his learning capacities” to every child with intellectual disabilities between the ages of 6 and 21. The state also agreed that school districts would provide services to children younger than age 6 if the district already provided preschool services to children without intellectual disabilities. The consent decree also stated that placing children with intellectual disabilities in the regular or general education classroom was preferable to a placement in any other setting (including a special classroom setting within the school). This decree further mandated that parents had to be notified prior to any change in educational status and that the educational placement of children with intellectual disabilities should be reevaluated at least every 2 years.

The *Mills* case was filed by attorneys on behalf of seven students with varying disabilities (including intellectual disabilities, behavior problems, and brain injuries). In the consent decree for this case, the court once again agreed that not providing these children with an appropriate education violated their constitutional rights. However, the District of Columbia failed to comply with the directives set forth in the consent decree, in part because it argued that the financial costs were prohibitive, and the case ended up back in court. In the *Mills* ruling, the District of Columbia was ordered to provide

each child of school age a free and suitable publicly supported education regardless of the degree of the child's mental, physical, or emotional disability or impairment. Furthermore, defendants shall not exclude any child resident in the District of Columbia from such publicly supported education on the basis of a claim of insufficient resources.

The right of school districts to expel or suspend students with disabilities was also limited by the *Mills* case.

Following these rulings, as well as a number of other similar rulings, the momentum for a national special education law increased. Even prior to the *PARC* and *Mills* cases, there had been federal legislation that assisted states in providing services to children with disabilities. In 1965, the Elementary and Secondary Education Act (ESEA; Public Law 89-10) was signed into law. Title I of this legislation was intended to provide school districts with federal financial assistance to help meet the needs of students who were disadvantaged primarily as a result of economic circumstances. Four other titles provided funding for other aspects of education, but children with disabilities were not specifically mentioned. Later in 1965, this law was amended to include money for grant programs for state-run schools and institutions for children with disabilities. This law was amended again in 1966 and included a Title VI, which authorized funds to assist states in developing programs for students with disabilities. In 1970, a new law (Public Law 91-230; the Education of the Handicapped Act [EHA]) replaced Title VI of the ESEA and provided grant programs for states to provide

services to children with disabilities. In 1974, amendments to ESEA and EHA were passed (Public Law 93-380) that increased financial assistance to states to provide services for children with disabilities. This law also included language that informed school districts that federal aid for programs for students with disabilities would depend on states developing plans for adequate services for children with disabilities. Finally, in 1975, the landmark Education for All Handicapped Children Act (EHA; Public Law 94-142) was passed. This law required that *all* students have access to a free and appropriate public education (FAPE) that is provided in the least restrictive environment (LRE).

Under Public Law 94-142, schools were required to provide services only for children of school age. In 1986, Public Law 99-457 (the EHA amendments) was passed. This law mandated special education services for children ages 3–5 and provided financial incentives to states to provide services for children from birth to age 3. In 1990, EHA was amended and its name changed to the Individuals with Disabilities Education Act (IDEA; Public Law 101-476). In 1997, IDEA was amended and reauthorized again (Public Law 105-17). This version of the special education law is often referred to as IDEA 1997. The most recent reauthorization of the law occurred in 2004 with the passage of the IDEIA (Public Law 108-446). The final rules and regulations for Part B of this law (which applies to students ages 3–21) were issued by the U.S. Department of Education in August 2006 and the final rules for Part C (covering birth to age 3) were published in September 2011. We next present a brief discussion of IDEIA 2004. Readers are also encouraged to review the federal rules and regulations, as well as their state regulations.

IDEIA 2004: Part B

There are four parts to IDEIA 2004: Part A, General Provisions; Part B, Assistance for All Children with Disabilities; Part C, Infants and Toddlers with Disabilities; and Part D, National Activities to Improve Education of

Children with Disabilities. Parts B and C are key in terms of service provision to children with disabilities. Part B is discussed in more detail in this section, and Part C services are discussed in a later section.

IDEIA 2004 requires that each state have a policy to ensure that all children with disabilities between the ages of 3 and 21 have access to a FAPE. The law specifies that services provided to children with disabilities must meet all of their special education needs, as well as related service needs, and that the services provided must be based on the unique needs of each child (34 C.F.R. § 300.1). Students with disabilities who have been suspended or expelled from school also have a right to a FAPE. Although all children have a right to a FAPE, students who are placed by their parents in private schools do not have “an individual right” to receive special education services (34 C.F.R. § 300.137). In these instances, the local educational agency (LEA), in collaboration with the private school, decides who is provided with what services. Children placed in a private school by their LEA (as opposed to parental placement) retain all of their rights under IDEA (34 C.F.R. § 300.146).

According to IDEIA, a child with a disability is one who has been evaluated and determined to have one of 13 specific conditions. These conditions are listed in [Table 7.2](#), along with a brief definition of each. In addition to these specific disabilities, children between the ages of 3 and 9 can be identified as having a developmental delay. To be so classified, a child must exhibit delays in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, and adaptive development (34 C.F.R. § 300.8).

TABLE 7.2. Definitions of Disabilities from IDEIA 2004 (34 C.F.R. § 300.8)

Autism

A developmental disability significantly affecting verbal and nonverbal

communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

Deaf-blindness

Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

Deafness

A hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.

Emotional disturbance

- (i) A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:
 - (A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
 - (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
 - (C) Inappropriate types of behavior or feelings under normal circumstances.
 - (D) A general pervasive mood of unhappiness or depression.
 - (E) A tendency to develop physical symptoms or fears associated with personal or school problems.
- (ii) The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance.

Hearing impairment

An impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance.

Intellectual disability

Significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance.

Multiple disabilities

Concomitant impairments (such as intellectual disability-blindness, intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments.

Orthopedic impairment

A severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

Other health impairment

Limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—

- (i) Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia and Tourette syndrome; and
- (ii) Adversely affects a child's educational performance.

Specific learning disability

- (i) **General.** The term means a disorder in one or more of the basic

psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

- (ii) **Disorders not included.** The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Speech or language impairment

A communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.

Traumatic brain injury

An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. Traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

Visual impairment including blindness

An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

One of the changes from IDEA 1997 to IDEIA 2004 that has had a direct impact on the practice of school psychology is the language regarding the evaluation of specific learning disabilities (SLDs). According to IDEIA 2004, states “must not require the use of a severe discrepancy for determining whether a child has a specific learning disability” and “must permit the use of a process based on the child’s response to scientific, research-based intervention” (34 C.F.R. § 300.309). This language is a significant change from previous versions of special education law, which specified that a severe discrepancy between a child’s intellectual abilities and academic achievement had to be present to give an SLD classification. Under IDEIA 2004, a severe discrepancy *could* be used if the state allowed it, but it was *not required* by federal legislation. This change has led to a rise in the use of multi-tiered systems of support (MTSS) or response to intervention methods to both provide comprehensive, tiered services to youth and also to qualify children for special education services under the SLD classification.

Not only are states required to provide services to all children with disabilities but they must also proactively seek to find children who could benefit from special education services. The Child Find provision of IDEIA (34 C.F.R. § 300.111) requires that states have a plan to ensure that all students with disabilities are “identified, located, and evaluated” to determine whether they are in need of special education services. When children who may benefit from special education services are identified, states are required to complete a “full and individual evaluation,” the purpose of which is to determine whether the child qualifies for special education services based on meeting eligibility for one or more of the 13 categories of disability outlined in IDEIA and, if so, what educational needs the student has (34 C.F.R. § 300.301). Students who receive special education services must be reevaluated at least every 3 years unless the parents and the school agree that a reevaluation is not necessary (although this reevaluation does not necessarily need to involve complete retesting of the child; 34 C.F.R. § 300.303, 300.305). Evaluation procedures must be technically sound and nondiscriminatory, and must be provided in the

child's native language (or other mode of communication). The evaluation should be thorough enough to identify all of the student's special education and related needs (34 C.F.R. § 300.304).

The results of the evaluation are used to develop a written individualized education program (IEP) for each child with a disability. The IEP must be reviewed at least once a year by an IEP team that includes the child's parents; at least one regular education teacher of the child; at least one special education teacher of the child; a representative of the public agency (e.g., school principal); an individual who can interpret the instructional implications of the evaluation results [often the school psychologists but this is not specified in the law]; other individuals deemed appropriate by the parents or school personnel; and the child, if appropriate (34 C.F.R. § 300.321). Parent participation in the IEP process is emphasized (34 C.F.R. § 300.322). Parents must be notified of an IEP meeting sufficiently ahead of time so that they are able to attend, and the meeting must be scheduled at a time that is convenient for them. Schools may conduct IEP meetings without parents only if the school has made multiple, documented attempts to try to secure the attendance of the parents. IDEIA 2004 allows for some members of the IEP team to be excused from attending meetings if no modifications are being made to their area or if they provided input prior to the meeting. However, parents must agree to this (34 C.F.R. § 300.321). Furthermore, additional changes to the IEP (after the annual IEP) can be made without holding a meeting if the school and the parents agree (34 C.F.R. § 300.324).

The IEP must include the following information (34 C.F.R. § 300.320):

- A statement of the child's current educational and functional performance and how the disability affects the child's involvement in the general education curriculum.
- A statement of measurable annual goals.
- Information on how a child's progress toward these goals will be measured.

- A statement of special education and related services and supplementary aids to be provided to the child, as well as a statement of program modifications or supports for school personnel to be provided to the child. These services and supports should allow the child to advance toward annual goals, be involved and progress in the general curriculum as appropriate, and be educated with other children with and without disabilities.
- An explanation of the extent to which the child with a disability will *not* participate in educational activities with children without disabilities.
- A statement of any modifications in state or district-wide testing that are needed for the child to participate in these assessments and, if the IEP team determines that the child will not participate in an assessment, an explanation of why the assessment is not appropriate and how the child will be assessed.
- Dates services are to be provided, as well as their frequency, location, and duration.
- When the child reaches age 16, a statement of postsecondary goals and transition services needed to meet these goals.

As indicated above, the IEP must include information regarding involvement with children without disabilities. A key part of IDEIA 2004, dating back to the original legislation, is the provision of services within the LRE. As stated in IDEIA, “To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled” (34 C.F.R. § 300.114). The law goes on to state that children can be removed from the regular education environment “only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (34 C.F.R. § 300.114). Schools must provide a continuum of placements for students with disabilities so that the individual needs of each student can be

met. This continuum includes the most inclusive settings of regular or general education classes at one end of the spectrum and special schools, institutions, or home instruction at the other, most restrictive end of the spectrum (34 C.F.R. § 300.115). The placements of children with disabilities should be as close as possible to their homes, and children should not be “removed from their age-appropriate classrooms solely because of needed modifications in the general education curriculum” (34 C.F.R. § 300.116).

IDEIA 2004 places greater emphasis on prereferral interventions than did previous versions of special education law by allowing LEAs to spend up to 15% of their IDEIA funds to assist students who are not yet identified with disabilities but who need additional academic and behavioral supports to be successful in the general education setting. Although these services can be provided to children in all grades, the focus is intended to be on children in grades K–3.

To ensure that each child receives a FAPE and that the rights of the child, as well as the child’s family, are not violated, IDEIA also outlines *procedural safeguards*. These safeguards highlight the importance of involving parents in the special education process. Parents have a right to be present at all meetings in which educational placement decisions regarding their child are made and to review their child’s educational records (34 C.F.R. § 300.501). Parents also have a right to seek an independent evaluation of their child if they desire. If a parent requests such an evaluation, the school district may choose to hold a hearing to show that its evaluation was appropriate, or the district can simply agree to pay for the requested independent evaluation. If a hearing is held and the evaluation completed by the school district is determined to be appropriate, the parents can still seek an independent evaluation, but at their own expense (34 C.F.R. § 300.502). Before school district personnel can conduct an assessment, parents must provide written consent for the evaluation to occur (34 C.F.R. § 300.503), and the parents must be given a copy of the procedural safeguards, which explains their rights in understandable language (34 C.F.R. § 300.504). In addition to requiring parental consent for testing, IDEIA also requires consent for

placement in special education programs (34 C.F.R. § 300.503). If a child's parents and the school district disagree on testing and/or placement issues, mediation can help resolve those differences. School districts must have a mediation process in place (34 C.F.R. § 300.506). However, if mediation does not resolve the differences, a due process hearing may occur. A due process hearing is conducted by an impartial hearing officer. If one party is dissatisfied with the outcome of the due process hearing, the next course of action is to file a civil lawsuit. If parents prevail in a lawsuit, they can be awarded attorney's fees (34 C.F.R. § 300.507–300.517).

Discipline procedures (34 C.F.R. § 300.530–300.537) are also an important topic addressed under procedural safeguards. School districts are allowed to suspend children with disabilities, as they would children without disabilities, for no more than 10 consecutive school days. A school district may also place a child with a disability in an interim alternative education setting for up to 45 school days if the child carries a weapon to school; possesses, uses, or sells illegal drugs while at school or at a school function; or has caused "serious bodily injury" to another person at school or at a school function. If a child with a disability is removed for more than 10 consecutive school days, the removal is considered to be a change in placement. A child who has been removed for a total of more than 10 school days across the academic year would also be considered to have had a change in placement (34 C.F.R. § 300.536).

When a change in placement occurs, an IEP meeting must be convened and the IEP reviewed. If no functional behavioral assessment (FBA) had been completed prior to this time, and if there is no written behavioral intervention plan for the student, these must be completed. In addition, if the disciplinary action being considered is a result of a weapons or school code violation resulting in a recommended suspension of more than 10 school days, then a manifest determination review must be held. The child's behavior is considered to be a manifestation of the child's disability if the behavior is determined to be caused by or had a direct and substantial relationship to the child's disability or if the behavior was the result of a

failure to implement the IEP. If the review finds that the behavior was *not* a manifestation of the student's disability, then the student can be subjected to the same disciplinary procedures as students without disabilities. However, the student must still be provided with a FAPE. In such case, a student could be suspended but would still need to be provided with educational services to allow the child to progress toward achieving his or her educational goals. If the behavior is determined to be a manifestation of the child's disability, the IEP team must conduct an FBA and implement a behavioral intervention plan (if it has not already done so) or review an existing plan and modify it to address the behavior/s of concern. In addition, the child should be returned to his or her educational placement unless the parents and LEA decide on a change of placement or unless the violation involves weapons, drugs, or serious bodily injury (34 C.F.R. § 300.530).

Since the passage of the initial federal special education law in 1975, numerous court cases have dealt with its implementation. We review some of the key cases in the following sections—however, these cases are too numerous to review in this chapter. Jacob and colleagues (2016), as well as Rothstein and Johnson (2014) and Yell (2019), provide a more comprehensive overview of case law and IDEA.

LRE and Court Cases

The meaning of LRE and when a child can be educated in a more restrictive environment has been the subject of a number of court cases. In *Daniel R.R. v. State Board of Education* (1989), the parents of Daniel, a young child with Down syndrome, wanted him to be placed in a regular PreK class. However, after a short time in such a class, the teacher reported concerns regarding Daniel's placement and believed that he was not able to benefit from being in the regular classroom. Daniel's placement was changed—however, his parents believed that his right to an education in the LRE had been violated. The hearing officer, as well as a district court, agreed that the school district had appropriately placed Daniel. In upholding the district court's ruling, the

court of appeals proposed two criteria to evaluate the appropriateness of a child's educational placement: (1) whether education in the regular classroom, with the use of supplementary aids and services, can be achieved satisfactorily and (2) if placement outside of a regular classroom is needed, whether the school has mainstreamed the child to the maximum extent possible.

A similar but expanded test of whether a placement is appropriate was created in a series of later cases. In the *Board of Education, Sacramento City Unified School District v. Rachel Holland* (1992), the parents of Rachel, a 9-year-old girl with moderate intellectual disabilities, requested her full-time placement in a regular education classroom, whereas the school district believed that half-time in a regular classroom and half-time in a special education classroom was the best placement. A hearing officer agreed with the parents, but the school district appealed this decision to the district court. The school district lost the case in district court but appealed. In the appeal decision, *Sacramento City School District v. Rachel H.* (1994), the court upheld the district court's decision and outlined a four-part test for whether the district had proposed an appropriate placement for Rachel:

1. The educational benefits to Rachel in a regular classroom, supplemented with appropriate aids and services, compared with the educational benefits of a special education classroom.
2. The nonacademic benefits of interaction with children who did not have disabilities.
3. The effect of Rachel's presence on the teacher and other children in the classroom.
4. The cost of mainstreaming Rachel in a regular classroom.

Similarly, in *Oberti v. Board of Education of the Borough of Clementon School District* (1993), the court proposed that when deciding whether a child with disabilities can be educated in the regular classroom, the following should be considered:

1. Whether the school district has made reasonable efforts to accommodate the child in the regular classroom.
2. The educational benefits available to the child in a regular class, with appropriate supplementary aids and services, compared with the benefits provided in a special education class.
3. The possible negative effects of the inclusion of the child on the education of other students in the class.

In this case, the court ruled that the school district failed to comply with IDEA when they placed Rafael Oberti, a young child with Down syndrome, in a segregated special education classroom.

Several court cases have upheld school districts' decisions to place children in more restrictive settings (e.g., *DeVries v. Fairfax County School Board*, 1989; *Hartmann v. Loudoun County Board of Education*, 1997), citing the fact that special education law encouraged mainstreaming "but only to the extent that it does not prevent a child from receiving educational benefit." Thus, if a school district can document that the less restrictive setting does not allow the child to benefit from his or her education (with supplementary aids and services), the child can be placed in a more restrictive setting. The courts have also ruled that the extent to which curriculum modifications would need to be made to allow a child to stay in a regular education classroom can be considered. In *Brillon v. Klein Independent School District* (2004), the court ruled that Ethan Brillon, a second grader, did not have to receive science and social studies in the general education setting in part because the district would have needed to make "unduly burdensome modifications to the regular curriculum" and that Ethan had not benefited from education in the general education setting.

Based on these court cases, while the presumption is that children will be educated in the regular classroom setting to the maximum extent possible, schools *can* place children in more restrictive settings. However, they must ensure that they have considered the appropriateness, including

the benefits and possible negative outcomes, of both more restrictive and less restrictive settings prior to placing a child in the more restrictive setting.

Appropriate Education and Court Cases

Although IDEA and its predecessors mandated that all children are entitled to a FAPE, the meaning of “appropriate” is not clearly defined. A number of court cases have attempted to provide clarity on this matter. The *Board of Education of the Hendrick Hudson Central School District v. Rowley* (1982) was the first case in which the U.S. Supreme Court addressed the issue of what constitutes an appropriate education. In this case, Amy Rowley, a Deaf student with “excellent” lip-reading skills and some residual hearing, was placed in a regular kindergarten class and provided with an FM hearing aid system. At the IEP meeting before her first-grade year, it was decided that Amy would remain in a regular class and continue to use the FM system. In addition, Amy was to receive instruction from a tutor for the Deaf for 1 hour a day and services from the speech–language pathologist for 3 hours per week. Amy’s parents argued that she also needed an interpreter full time in the classroom. An interpreter had been provided on a trial basis for 2 weeks in her kindergarten class, but the interpreter reported that Amy did not need those services. In a hearing initiated by Amy’s parents, the district’s decision was upheld. Amy’s parents then brought suit in a district-level court. The court ruled that Amy was not being provided with an appropriate education, and this ruling was upheld by a court of appeals. However, the U.S. Supreme Court ruled in favor of the school district and reversed the earlier rulings. In making its decision, the Supreme Court reviewed Public Law 94-142 and held that the IEP should be “reasonably calculated” to allow a child to progress—however, it does not require the state to “maximize the potential” of each student with a disability. Therefore, if the state has complied with special education law procedures and developed an IEP that is “reasonably calculated to enable the child to receive educational benefits,” then the school district has met the requirements of the law.

Since the *Rowley* case, there have been a number of other court cases in which parents have argued that their children were not receiving an appropriate public education. Specific outcomes have varied, but in general, the courts have ruled that schools must provide services that are likely to result in meaningful educational benefits to the child (e.g., *Polk v. Central Susquehanna Intermediate Unit 16*, 1988). In a more recent case (*J.L. and M.L. and their minor daughter K.L. v. Mercer Island School District*, 2006), the Western U.S. District Court found that the *Rowley* standard “set the bar too low” for children with disabilities. The court argued that the school district had not adequately focused on “progressing K.L. toward self-sufficiency (i.e., independent living) and her desired goal of post-secondary education” and that this was “a failure to confer the benefit contemplated by the IDEA.” The court further argued that with IDEA 1997, legislation had moved from granting “access” to education to being an “outcome-oriented process.” However, the Ninth Circuit Court of Appeals reversed the District Court’s decision (*J.L., M.L., K.L., their minor daughter v. Mercer Island School District*, 2009), indicating that the *Rowley* standards of whether a FAPE was provided continued to apply and that the District Court had “misinterpreted Congress’ intent,” stating that if the Congress had meant to change the FAPE meaning in IDEA 1997 related to the educational benefit standard, “it would have expressed a clear intent to do so.”

In the context of providing a FAPE, increasingly parents of students with disabilities have been seeking reimbursement for services provided in private school settings. In *Florence County School District Four v. Carter* (1993), the U.S. Supreme Court held that the parents who had withdrawn their son from public school and placed him in a private school were entitled to compensation for the costs of the private school because the district did not provide a FAPE. In a case focusing on services to a young child with autism (*L.B., and J.B., on behalf of K.B. v. Nebo School District*, 2004), the Court of Appeals concluded that K.B. had not been provided an education in the LRE (and, therefore, also not provided a FAPE) and ruled

that parents could be reimbursed for the 40 hours/week of applied behavior analysis services they had elected to provide to K.B.

In a more recent case (*Forest Grove School District v. T.A.*, 2009), the U.S. Supreme Court granted the parents' request for private school tuition after they had unilaterally placed their son in a private school and requested an administrative hearing on his eligibility only after the private school placement was made. The district found him ineligible for services, but the parents sued, saying he had been denied a FAPE. Although the district court initially sided with the school, indicating that parents could not be reimbursed when the child had not previously received special education services, this decision was overturned on appeal and affirmed by the U.S. Supreme Court.

The most recent high-profile case related to FAPE (and reimbursement) was *Endrew F. v. Douglas County School District* (2017). Endrew is a child with autism who was withdrawn from the public schools by his parents due to a perceived lack of progress on his IEP goals. The parents sought reimbursement from the district, claiming the district had not provided Endrew with a FAPE. While lower courts ruled that the parents should not receive reimbursement because Endrew had received *some* educational benefit, the U.S. Supreme Court unanimously ruled that schools must provide more than "de minimus" services, thus granting the parents reimbursement. The court stated that IDEA "requires an educational program reasonably calculated to enable a child to make progress appropriate in light of the child's circumstances." The court was clear that it was not overturning the *Rowley* precedent and that the *Endrew* case was different from *Rowley* in that Rowley had been succeeding academically while Endrew was not succeeding. The court also indicated that IEP services did not have to enable achievement/independence "substantially equal" to students without disabilities. In summary, the decision stated that the court would not "attempt to elaborate on what 'appropriate' progress will look like from case to case" and that "adequacy of the IEP turns on the unique circumstances of the child for whom it was created."

In addition to looking at FAPE broadly in terms of progress on IEP goals, several court cases regarding FAPE have dealt with the issue of related services focusing on whether denial or reduction of related services resulted in a denial of FAPE. Related services are those services that allow a child to access and benefit from special education—but are not the actual special education instructional services. For example, in *Irving Independent School District v. Tatro* (1984), the U.S. Supreme Court ruled that clean intermittent catheterization was a needed related service for an 8-year-old with spina bifida. The Court ruled that this service was needed to allow the child to stay in school during the day to benefit from her education. In a similar case, a school district was required to provide nursing care as a related service for a student who was in a wheelchair and ventilator dependent so that he could remain integrated in school and benefit from the educational environment (*Cedar Rapids Community School District v. Garret F.*, 1999).

As a whole, these cases suggest that school districts should ensure that the services they provide allow children to remain in school and benefit from their educational services and progress on IEP goals. Services do not have to be the *best* available, but they do need to be sufficiently *adequate* to allow children to access and benefit from their public educational experiences.

IDEIA 2004: Part C

Part C of IDEIA 2004 contains the regulations applicable to early intervention programs for infants and toddlers from birth through age 3. Unlike Part B of IDEIA, which requires a FAPE for all students, Part C provides grants to states to assist them in developing early intervention services for children up to age 3. However, states are not required to apply for funds to implement these programs (although all states are currently providing Part C services), and states can charge parents for a portion of the services provided under Part C. The final regulations of Part C were released by the U.S. Department of Education in September 2011 (as 34 C.F.R. §

303). Part C services require that states identify a lead agency responsible for the provision of early intervention services (34 C.F.R. § 303.120). This lead agency then submits an application that outlines how early intervention services will be provided. In many states, the lead agency is not the state's department of education but another state agency, such as the state's department of health. In addition to an identified lead agency, Part C regulations require that an interagency coordinating council be developed to assist the lead agency in the coordination and provision of services to children and their families (34 C.F.R. § 303.600).

Under Part C, children up to age 3 may be eligible for early intervention services if they have delays in one or more of the following areas: cognitive development, physical development (including vision and hearing), communication development, social and emotional development, and adaptive development. Children who have diagnosed physical or mental conditions that have a high probability of resulting in delays are also eligible for services. In addition, states can choose to provide services to children who are determined to be at risk for delays (34 C.F.R. § 303.21).

Children who receive Part C services are provided with a service coordinator. The coordinator's role is to help parents access and coordinate services for their children (34 C.F.R. § 303.34). Early intervention services are required to be provided in the "natural environments" (e.g., the family's home) to the maximum extent that is appropriate (34 C.F.R. § 303.126). A child receiving early intervention services is required to have an individualized family service plan (IFSP). This plan is essentially a downward extension of the IEP but should include more family-focused goals and objectives. IFSP meetings, as with IEP meetings, must include the parents of the child. The IFSP must be reviewed every 6 months (at a minimum), and annual meetings must occur to evaluate the IFSP (34 C.F.R. § 303.340–303.344).

In addition to having a Child Find program (as with Part B of IDEIA), Part C requires that states have a public awareness program that focuses on the purpose of early intervention and how referrals can be made to early

intervention programs (34 C.F.R. § 303.300, 303.301). After a child has been referred and the parents have consented to an evaluation, the state has 45 days to complete the evaluation and develop an IFSP for the child (34 C.F.R. § 303.310). In the assessment and evaluation process, the inclusion of the family is emphasized. This process includes supports and services necessary to help the family meet the needs of the child (34 C.F.R. § 303.321). Under Part C, states may elect to impose a sliding-scale fee, requiring parents to pay a portion of the costs of the early intervention services (34 C.F.R. § 303.500, 303.521). Procedural safeguards specified in Part C are much the same as those specified in Part B of IDEIA (see 34 C.F.R. § 303.400–303.449).

One of the new aspects of IDEIA Part C is that states can elect to continue to provide early intervention services to children over the age of 3 (and up until the child enters kindergarten). If states elect this option, parents would be provided with notice regarding their options for services once their child turns 3 (34 C.F.R. § 303.211). Based on U.S. Department of Education data from 2017 through 2018, only three states (District of Columbia, Maryland, and Nebraska) reported any students who were Part B eligible but continued with Part C services (see www2.ed.gov/programs/osepidea/618-data/static-tables/index.html).

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act

In addition to IDEIA, the Rehabilitation Act of 1973 promoted the development of services for children with disabilities. The Rehabilitation Act prevents discrimination on the basis of disability in programs that receive federal support. Section 504 of this act specifically states that “no otherwise qualified individual with a disability ... shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance” (29 U.S.C. § 794). Subpart D of Section 504 refers specifically to preschool, elementary, and secondary education. This subpart specifies that all children have a right to a FAPE. Although many students with disabilities will be covered under IDEIA, some students with disabilities may not be eligible for IDEIA services but are still eligible for accommodations under Section 504. Section 504 is broader and less specific than IDEIA. The definition of a person with a disability (and, therefore, one qualifying for services under Section 504) is “any person who (1) has a physical or mental impairment which substantially limits one or more major life activities; (2) has a record of such impairment; (3) is regarded as having such impairment.” Physical or mental impairment is broadly defined, with no specific definitions of disability conditions. Children with medical conditions, as well as those with mental illnesses, are covered under Section 504. Students can perform well in school and still be considered eligible for 504 services, as long as their impairment limits any major life activity (not just learning). Even a child with a disability who does not need special services would still be covered under 504 in terms of protection from discrimination based on disability status (U.S. Department of Education, 2016b).

Unfortunately, when the Rehabilitation Act was passed, it included no provisions for how the law should be implemented or enforced or how

remedies should be decided in cases in which the law was violated. A 1976 lawsuit (*Cherry v. Mathews*) resulted in a court order that the government create guidelines for the implementation of Section 504. In 1977, the first guidelines regarding Section 504 were issued (Jaeger & Bowman, 2002). However, even following the issuance of Section 504 guidelines, schools were somewhat slow to respond to the mandates of this law. There were several reasons for this time lag, including confusion about who qualified for Section 504 services versus special education services. In addition, unlike IDEIA, Section 504 has no funding attached to it. Although Section 504 lacks funding, school districts are required to comply with this law, and the Office for Civil Rights (OCR) is charged with investigating violations of Section 504 policy. If OCR finds that a school district is not compliant with Section 504, certain federal funds may be removed from the school district. In the 1980s, there were a number of lawsuits, as well as complaints to OCR, that schools were not following 504 mandates in terms of making appropriate accommodations to youth with disabilities who should have been covered by 504. In 1991, a memorandum from the U.S. Department of Education clarified school districts' responsibilities under Section 504 to children diagnosed with attention-deficit/hyperactivity disorder (ADHD) who did not qualify for special education services. (This memo also clarified how students with ADHD could be served under IDEIA in the other health impairment [OHI] category). It was after these lawsuits, as well as the greater clarification on ADHD and 504, that schools began to attend more closely to the appropriate development of Section 504 plans (Jacob et al., 2016).

Under Section 504, schools must provide a FAPE to students with disabilities who need additional educational supports and/or services. School districts often develop Section 504 plans for students that, much like an IEP, describe the services and aids the student will be receiving. Unlike the IEP under IDEIA, a Section 504 plan is not required (U.S. Department of Education, 2016b). As with IDEIA, however, there are a variety of procedures and safeguards under 504—including the requirement for

appropriate and timely evaluation procedures, education with peers without disabilities to the extent that is appropriate, and procedural safeguards—to protect the rights of the parents and the child. Section 504 rights extend to extracurricular and athletic activities in that schools are required to provide equal opportunity for students with disabilities for participation in these activities. Specifically, the school is not required to alter the activity but to make modifications that would allow equal opportunity (U.S. Department of Education, 2016b).

Under Section 504, peer harassment of students with disabilities is also prohibited if such harassment is serious enough to “deny or limit a student’s ability to participate in or benefit from the school’s education programs and activities (in other words, creates a hostile environment).” Schools must immediately investigate alleged harassment by peers (or anyone else in the school setting) and take steps to address any harassment that is occurring (U.S. Department of Education, 2016b).

The Americans with Disabilities Act (ADA) of 1990 and the ADA Amendments Act of 2008 are similar in many ways to Section 504. However, whereas Section 504 applies only to organizations receiving federal assistance (e.g., public schools), ADA applies to employment and schooling organizations regardless of whether they receive federal financial assistance. For example, ADA would apply to private schools that receive no federal funds—although a notable exception is that ADA would not apply to students at schools controlled by religious organizations. The definition of a person with a disability in ADA remains the same as the definition cited previously from Section 504.

Other Important Federal Legislation

In addition to federal legislation (and related case law) dealing specifically with disability issues, there are pieces of legislation that deal with school-related issues in general. These acts are important to understand for everyone involved in education, so we provide a brief review of them here and encourage readers to be familiar with these laws.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) of 1974 protects the privacy of students' educational records. Parents have a right to review their children's school records and request corrections if they believe there are errors in the records. This law also requires that parents provide consent in order for a school district to release a child's educational records to a third party (e.g., a psychologist in private practice). There are certain exceptions to this last provision. Schools may disclose information to other school personnel that have a "legitimate interest" in knowing the information, as well as to a school to which a child may be transferring. Other exceptions include health and safety issues and requirements of law.

Title IX of the Education Amendments Act of 1972

Title IX prohibits discrimination based on sex in any educational program that receives federal funds—so this applies to most school settings. While many people may think of Title IX as related to sports (e.g., girls must have the same opportunities as boys to play sports), its impact is much broader than this. Among the issues that Title IX addressed is the prohibition of sexual harassment and gender-based harassment. Among other requirements, schools must have a designated Title IX coordinator, must respond promptly to accusations of harassment/discrimination, and must

provide “supportive measures” to those who are targeted by harassment (34 C.F.R. § 106).

Every Student Succeeds Act

The Every Student Succeeds Act (ESSA), which went into effect in the 2017–2018 school year, is the most recent piece of federal legislation related to education and is the 2015 reauthorization of the Elementary and Secondary Education Act. The previous reauthorization (signed into law in 2002) was the No Child Left Behind (NCLB) Act, which implemented greater accountability standards for schools with mandated proficiency testing. Compared with NCLB, ESSA provides more flexibility for states on a number of issues but maintains a focus on accountability and high academic standards with college and career readiness being essential. (For summaries of ESSA requirements, see www2.ed.gov/policy/elsec/leg/essa/index.html and www.nasponline.org/research-and-policy/policy-priorities/relevant-law/the-every-student-succeeds-act/essa-implementation-resources/essa-overview-for-school-psychologists.)

ESSA maintains some of the testing requirements put in place in NCLB, requiring that all students in grades 3–8 take annual statewide assessments in reading/language arts and math, as well as science, testing at least once each in elementary, middle school, and high school. However, schools have greater flexibility in terms of developing/using assessment methods, as long as the methods are technically adequate and valid/reliable for the purposes for which they are being used. States also have flexibility to avoid unnecessary testing. Students with significant cognitive disabilities can take an alternative assessment but this is limited to 1% of all tested students (this cap is not school or district based). For students with IEPs, states must have guidelines to help determine whether students would be more appropriately assessed with an alternative assessment. Special provisions are made to support English learners (ELs) through the requirement that states assess the English proficiency of all ELs using a statewide assessment tool. States must

make sure that ELs have appropriate accommodations for testing and to make “every effort” to provide assessments in a child’s native language.

Under ESSA schools are required to have accountability goals but states have flexibility in choosing their goals, as long as they address test proficiency, English language proficiency, and graduation rates. States are still required to identify schools that are underperforming. Schools would require a comprehensive support and improvement plan if they fall in the bottom 5% of schools, have high school graduation rates below 67%, and/or have subgroups of students who consistently underperform. Support plans for these schools are developed and monitored by states and should include the implementation of evidence-based learning supports. Schools could also be identified as being in need of targeted support and improvement if a subgroup of students is consistently underperforming. States must also provide annual data on school climate, bullying, and harassment. States and districts have flexibility on how to address these issues and can use allocated funds to engage in activities, such as implementing MTSS, positive behavioral interventions and supports, and so on.

Ethical Principles and Issues

In addition to legal issues, school psychologists must be aware of the ethical principles that guide the practice of school psychology and psychology in general. As indicated early in this chapter, ethical principles differ from legal mandates in that ethical codes are aspirational and not enforceable by law. Ethics are intended to guide the appropriate and professional practice of psychology, and all school psychologists should take these principles just as seriously as they do legal mandates.

Ethical codes provide a model for moral practice and are designed to help protect those whom professionals serve (e.g., children, in the case of school psychologists). In this context, morality involves an evaluation of professional actions based on some broader social or cultural context. Although they are not necessarily enforceable by law, ethical violations are taken seriously by professional organizations and licensing bodies. Individuals may have their memberships in organizations and/or their professional licenses revoked for serious ethical violations (Drogin, 2019). However, individuals should not follow ethical guidelines simply out of fear of punishment. Individuals should follow ethical guidelines because they help us to best serve and protect our clients and their needs and interests. Both NASP and APA have developed ethical codes to help guide the professional practice of school psychology and psychology in general. However, it should be noted that simple knowledge of these codes is unlikely to be sufficient in helping individuals engage in ethical practice. Many ethical dilemmas faced by school psychologists involve not violations of specific ethical principles but rather ethically challenging situations (Jacob-Timm, 1999). Partly because of this, there has been a focus on ethics education in teaching *ethical decision-making* models in addition to covering the provisions of the appropriate ethical codes (e.g., Jacob et al., 2016; Knapp, VanderCreek, & Fingerhut, 2017; Nagy, 2011). Although the models

used to teach ethical decision making vary in their specific steps, they all involve some similar features, including identification of the ethical dilemma, consideration of ethical guidelines, generation of possible resolutions to the ethical dilemma, evaluation of these possible resolutions and the effects of certain actions on the involved individuals, and making a decision regarding which course of action to follow. As part of this process, consultation with colleagues, reviews of ethics literature and of state and federal laws, and consideration of broad ethical values (e.g., respect for autonomy, fairness) are taken into account.

As noted, many of the ethical dilemmas faced by school psychologists are not related to specific ethical violations but instead involve ethically problematic situations, thus emphasizing the need for broad ethical problem-solving education. In a survey of school psychologists regarding the ethical transgressions they had observed in the past year and the dilemmas they had faced (Dailor & Jacob, 2011), only 23% of participants reported not having any “ethically challenging” situations over the past year. The most common ethical transgressions witnessed or observed (reported by 86% of respondents) were related to assessment, with the most common assessment issue being that assessments were conducted in unsatisfactory locations (reported by 51% of respondents). Intervention transgressions were reported by 79% of the respondents with 73% indicating that “failure to follow up to ensure intervention recommendations were effective” occurred. About three-quarters (76%) of participants also reported transgressions related to yielding to administrative pressures, such as avoiding making certain recommendations due to costs and agreeing with a placement that was not the least restrictive environment. About half reported transgressions related to informed consent (51%) and parent conflicts (48%).

In responding to whether they had personally experienced eight listed ethical dilemmas, about a quarter of participants indicated they had experienced dilemmas about the following: reporting child abuse to authorities, reporting a child’s risky behavior to parents, addressing unethical conduct in a colleague, and addressing test security when parents

request to see protocols. Fewer than 20% reported dilemmas related to pressure from administrators to act unethically or not in compliance with the law, children at risk for self-harm, and pressure to disclose confidential information. Participants in this study were also asked about strategies they used to address ethical dilemmas. While 66% said they consulted with a colleague, less than half (42%) indicated they consulted ethical codes, laws, or guidelines, and only 16% reported using an ethical decision-making model. Dailor and Jacob (2011) conclude that ongoing training and practice in ethical problem solving are important. We agree that school psychologists must have knowledge about the content of ethical codes governing practice and that they must also have the ability to engage in problem-solving tactics when faced with an ethical dilemma.

The two primary codes of ethical conduct with which all school psychologists should be familiar are APA's *Ethical Principles of Psychologists and Code of Conduct* (2017a) and NASP's *Principles for Professional Ethics*, which are part of NASP's Professional Standards (2020b). In addition, NASP also publishes their *Model for Comprehensive and Integrated School Psychological Services* within the Professional Standards, which contains NASP's views of best practices in school psychology. It is acknowledged that not all school psychologists will be able to meet every standard in these guidelines, but the document should serve as an aspirational guide for the practice of school psychology. The full text of this document is available online at www.nasponline.org/standards-and-certification/nasp-2020-professional-standards-adopted. APA's ethical code is also available online at www.apa.org/ethics/code. Students and practicing school psychologists should read these codes and become familiar with them. In addition, it is important to note that ethical codes are revised approximately every decade, and it is imperative to keep up to date with the changes in the ethical codes. For example, APA released amendments to its ethical code in 2010 and 2016 to address issues in a timely manner. In January 2018, APA appointed a task force to evaluate the current code and recommend revisions. NASP's codes

were just updated in 2020 (with 2010 being the most recent version before this update).

Both the NASP and APA ethical codes have introductory statements that provide some general guidelines and aspirational guidance to practitioners. The introduction to NASP's (2020b) *Principles for Professional Ethics* states:

School psychologists are committed to the application of their professional expertise for the purpose of promoting improvement in the quality of life for students, families, and school communities. This objective is pursued in ways that protect the dignity and rights of those involved. School psychologists consider the interests and rights of children and youth to be their highest priority in decision making, and act as advocates for all students. These assumptions necessitate that school psychologists speak up for the needs and rights of students even when it may be difficult to do so. (p. 50)

NASP then divides the specific ethical guidelines into four broad categories: (1) Respecting the Dignity and Rights of All Persons; (2) Professional Competence and Responsibility; (3) Honesty and Integrity in Professional Relationships; and (4) Responsibility to Schools, Families, Communities, the Profession, and Society.

APA's (2010) *Ethical Principles* has an introductory preamble and general principles in which psychologists are encouraged, among other things, to "benefit those with whom they work and take care to do no harm" (Principle A). Following this, ethical standards in 10 areas are provided: (1) Resolving Ethical Issues, (2) Competence, (3) Human Relations, (4) Privacy and Confidentiality, (5) Advertising and Other Public Statements, (6) Record Keeping and Fees, (7) Education and Training, (8) Research and Publication, (9) Assessment, and (10) Therapy.

Although there are some differences between the ethics codes of NASP and APA, there are also many similarities, especially as related to general ethical principles. Because of the number of similarities between the ethical codes, we have chosen to organize the following discussion of ethical principles around major ethical areas, highlighting both NASP's and APA's guidelines on these issues.

Competence

Both the NASP and APA codes state that psychologists should engage only in activities for which they are competent and qualified. Psychologists are to seek training, consultation, or supervision as needed to provide competent services. They are also encouraged to make referrals if they are not competent to handle a case without support. APA's ethical code does state that in an emergency situation, psychologists may provide services for which they are not trained to ensure that services are not denied—however, these services are to end as soon as the emergency resolves or more appropriate services become available. Psychologists are also expected to engage in continuing professional development activities to develop and maintain their competence. Psychologists are to refrain from engaging in activities in which they have personal conflicts that would prevent them from providing competent services.

Professional Relationships

Both NASP and APA address psychologists' relationships with others. In NASP's ethical principles, this is addressed under "Honesty and Integrity in Professional Relationships" and in APA's code under "Human Relations," as well as throughout other sections dealing with specific issues. Both codes discuss avoiding dual or multiple relationships. For example, a psychologist who is providing services to a family should not also be engaged in a business relationship with this family. APA's ethical code does state that "multiple relationships that would not reasonably be expected to cause impairment or risk exploitation or harm are not unethical" (§ 3.05). NASP's ethical guidelines state that "school psychologists avoid multiple relationships that diminish their professional effectiveness" (Guiding Principle III.4, p. 62). Both ethical codes specify that psychologists should engage in nondiscriminatory practice and not engage in harassment (including sexual harassment and harassment based on personal

characteristics, such as sexual orientation or religion) or in exploitative relationships. Both ethical codes also emphasize working with other professionals to best serve their clients.

Both ethical codes address sexual relationships with clients and relatives of clients. NASP is more absolute in its prohibitions, stating that

School psychologists do not engage in sexual relationships with individuals over whom they have evaluation authority, including college students in their classes or program, or any other trainees, or supervisees. School psychologists do not engage in sexual relationships with their current or former pupil-clients; the parents, siblings, or other close family members of current pupil-clients; or current consultees. (Standard III.4.4, p. 63)

APA's ethical code prohibits sexual relationships with current clients and close relatives of current clients. In addition, psychologists are not to accept into therapy individuals with whom they have had sexual relationships. However, APA does indicate that psychologists could engage in sexual relations with former clients 2 years following termination of the professional relationship, but only under the "most unusual circumstances" (§ 10.08). APA separately discusses sexual relations with students and supervisees and indicates that psychologists are not to engage in sexual relations with "students or supervisees who are in their department, agency, or training center or over whom psychologists have or are likely to have evaluative authority" (§ 7.07).

In addition to general professional relationships, NASP's ethical guidelines address the school psychologist's professional relationships with specific individuals, including the child and family. NASP ethical principles discuss parental participation in services and parental consent for services in some detail (see Standard I), noting when parental consent is required (e.g., consultation about a child is expected to be extensive and ongoing) and when it is not (e.g., reviewing educational records, participating in educational screenings that are part of the regular instruction), and also notes that parents must be notified about mental health screenings with an opt-out if they do not want their child to participate. NASP principles also

note that school psychologists should encourage the voluntary participation of minor students in services. However, it is also noted that student assent can be bypassed if the service has a “direct benefit to the student and/or is required by law” (Standard I.1.4, p. 54).

Because some school psychologists can practice independently (depending on their licensure status), multiple relationships can exist for school psychologists who work in the schools, as well as in private practice. NASP’s ethical guidelines include a separate section (Standard III.5.8) on professional independent practice that addresses some of the issues faced by school psychologists who are employed by a school district and also have a private practice. In such situations, school psychologists must inform potential clients of no-cost services available through the schools and may not provide services to students of a school or students eligible to attend school where the school psychologist is working unless the services are not available in the school setting. In addition, school psychologists are to conduct their private practice business outside of school hours, and they should not use materials that belong to a public employer unless the employer approves of their use.

APA specifically discusses the issue of informed consent, both in general and in relation to treatment and research. The APA guidelines specify that informed consent be obtained from the individual prior to engaging in research, therapy, assessment, and consulting activities. Assent should also be obtained when an individual is not able to give informed consent (e.g., children under age 18). Consent (and assent) must be documented by the psychologist.

Privacy and Confidentiality

Both NASP and APA stress the importance of keeping information confidential. Information should be shared only after receiving informed consent from the client or parent or in situations in which it is required or permitted by law. APA specifies that the sharing of confidential information

without consent may include instances in which information needs to be disclosed to “protect the client/patient, psychologist, or others from harm” (§ 4.05). NASP also specifies that confidential information can be shared “in those situations in which failure to release information could result in danger to the student or others or where otherwise required by law” (Standard I.2.3, p. 55). Clients should be told about the limits to confidentiality prior to the initiation of services, and the NASP standards note that confidentiality issues may need to be discussed at multiple points. APA specifies that if the clients are being audiotaped or videotaped, permission specifically for these activities must be given by the client (or the parents if the client is a minor). If psychologists are presenting confidential information in a public presentation, they must either take steps to disguise the source of the information or obtain consent from the client for the presentation. APA also specifies that if a psychologist consults with a colleague regarding a case, the psychologist cannot disclose confidential information (unless prior consent has been obtained) and that the psychologist disclose only enough information to meet the purpose of the consultation. The NASP ethical guidelines state that school psychologists prevent unauthorized release of electronic files (e.g., via passwords, encryption) and that parents (or adult students) are notified if records are stored or transmitted electronically. The NASP standards also note that parents should have “appropriate access to the psychological and educational records of their children” (Standard II.4.4., p. 59).

Professional Practice: Intervention and Assessment

The ethical codes of NASP and APA have a number of similarities in their discussion of assessment-related issues. Both codes indicate that psychologists should be knowledgeable about the psychometric properties of instruments they use and should use instruments appropriate to the purpose of the evaluation. NASP also specifically states that school psychologists should use a variety of sources of data when conducting an

evaluation (Standard II.3.6). Interpretation of test results is also addressed in the ethical codes of both NASP and APA. APA refers to the use of automated scoring and interpretation programs and indicates that even when such programs are used, psychologists must take into account the purpose of the assessment and individual characteristics of the client when interpreting results. The NASP ethical guidelines indicate that school psychologists should adequately interpret information and communicate findings in an understandable manner. With regard to digitally administered assessments or computer-assisted scoring and interpretation programs, NASP guidelines indicate that school psychologists should use programs that meet professional standards and use professional judgment in evaluating the accuracy of the findings.

With regard to engaging in intervention activities, NASP specifies that school psychologists should use a problem-solving process to develop interventions and that preference be given to interventions that have research support (Standard 11.3.12). APA states that psychologists must inform their clients if the therapy techniques being used have not been established, as well as the potential risks associated with the treatment.

Research

Both NASP and APA discuss ethical principles as they relate to involvement in research. Both sets of ethical guidelines indicate that institutional approval should be obtained prior to beginning research. The NASP standards indicate that if proposals have not been reviewed by an institutional review board, that individuals knowledgeable about research and ethics should review the research prior to beginning the project and should have the research approved by the school administration (Standard IV.4.2a). Both ethical codes specify that psychologists do not fabricate data, do not plagiarize, and do not publish the same finding twice. Both codes specify that steps should be taken to correct any errors discovered after publication of data. Both ethical codes also indicate that authorship

inclusion and order should be based on contributions to the project and that only those who have made substantial contributions should be included as authors. APA ethical codes further specify that, except under unusual circumstances, a student is listed as the first author when the manuscript is based significantly on the student's dissertation. Both ethical codes also specify that reviewers of manuscripts respect the confidentiality of these works.

APA's ethical code goes into more detail than does NASP's code on some of the specifics regarding conducting research. For example, APA's code specifies that deception should not be used unless it is justified given the potential value of the study and the lack of suitable alternative methods. Psychologists are also instructed to not use deception when it is "reasonably expected to cause physical pain or severe emotional distress" (§ 8.07). The APA ethical code also contains a section on ethics when using animals in research.

Training and Supervision

Both sets of ethical guidelines cover issues in training or supervising psychology students, and although the ethical codes are somewhat similar, they address these issues from a slightly different perspective. APA specifies that training programs be designed to provide appropriate knowledge and expertise and that program descriptions be accurate and made available to those interested. APA further specifies that information presented in courses, syllabi, and other training be accurate. Both ethical codes indicate that timely feedback should be provided to students and others being supervised and that this feedback should be fair. APA specifies that the feedback should be based on "actual performance on relevant and established program requirements" (§ 7.06). The NASP ethical code specifies that school psychologists who supervise trainees or interns are responsible for the professional practice of those they supervise. NASP also specifies that

interns and trainees should be clearly identified as such in reports and that supervisors must cosign all reports.

APA addresses disclosure of student personal information and therapy for students. The ethical guidelines state that psychologists cannot require students and others being supervised to disclose personal information, unless (1) the program has clearly identified such information as a requirement of the program in its program materials, (2) the information is necessary to evaluate or obtain assistance for the student if problems could prevent the student from competently completing his or her training duties, or (3) a threat is posed to others. APA specifies that if programs require student involvement in psychotherapy, the program faculty should allow students to select therapists not affiliated with the program. In addition, faculty who are responsible for evaluating the students should not provide the therapy.

Advertising and Media Relations

Both NASP and APA specify that psychologists must provide accurate information in their announcements and advertisements. APA specifies that psychologists cannot solicit testimonials from former clients and cannot directly solicit clients. APA also specifies that psychologists do not compensate members of the media in return for publicity in a news item. The APA code contains statements regarding presentations through mass media outlets and cautions psychologists to not indicate that a professional relationship has been established with an individual via this manner.

Record Keeping and Fees

The APA ethical code has a specific section on record keeping and fees. Likely because these issues are more relevant to psychologists in private practice than to school psychologists employed by a school district, the NASP guidelines say little about these issues. As has already been discussed

in the confidentiality section, psychologists are expected to keep records confidential, and if information is stored in a database, psychologists should code personal information so that individuals cannot be identified. Psychologists are not allowed to withhold records needed for a client's emergency treatment just because the client has not paid for services. Psychologists are to establish a fee agreement with their clients early in the therapy process. APA indicates that psychologists *may* barter (accept goods, services, and so on in lieu of monetary payment) if this is "not clinically contraindicated" and if the "arrangement is not exploitative" (§ 6.05).

Ethical Decision Making

When ethical principles require a higher standard of conduct than what is set forth in the law, both NASP and APA indicate that ethical principles should be followed. In addition, when ethical behavior conflicts with policy or law, psychologists are expected to state their dilemma and commitment to their ethics, and take steps to resolve this conflict. If conflicts exist between ethical practice and the demands of an organization for which a psychologist works, APA's ethical code indicates that the psychologist must attempt to resolve the conflict consistent with the ethical code. Both NASP and APA ethical codes indicate that if a psychologist becomes aware of a possible ethical violation on the part of another professional, an informal resolution should first be attempted, if appropriate, by bringing the matter to the attention of the individual. If an informal resolution is not appropriate or, as APA specifies, if the violation is likely to cause substantial harm, the psychologist should contact appropriate organizations (e.g., professional organizations' ethics committees, state licensing boards). The filing of an ethics complaint that is frivolous or made without regard to the facts is itself an ethics violation.

Integrating Ethics and Law: Limits to Confidentiality

Several of the issues covered in the ethical guidelines of both NASP and APA have also been the subject of case law. In particular, some of the issues related to confidentiality have been the subject of lawsuits that have led to the creation of new laws in some states, as well as changes to ethical codes. Although both ethical codes stress confidentiality, this confidentiality has limits. The three main limits to confidentiality involve abuse of a minor child, threat of harm to another, and threat of harm to oneself. Where these situations exist, psychologists have an ethical (and often legal) obligation to break confidentiality to ensure the safety of their clients and/or other individuals.

Child Abuse and Neglect

All states have mandatory child abuse reporting laws that require certain individuals to report suspected child abuse or neglect to the appropriate authorities (generally a state agency, such as child protective services). In some states, *all* individuals are mandated reporters, whereas in other states, mandated reporters are limited to certain groups (e.g., physicians, mental health workers, teachers) but others *may* report. The federal Child Abuse Prevention and Treatment Act that was initially enacted in 1974 and has been updated on multiple occasions since then, including most recently in 2019 (Public Law 115-271), defines child abuse and neglect as “at a minimum, any recent act or failure to act on the part of a parent or caregiver, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm.” At a minimum, states must use this definition in terms of what they consider to be reportable abuse and neglect. However, states

may add to this definition. Reporting laws are generally worded so that an individual does not need to be sure that abuse is occurring but have “reasonable cause” to believe that abuse has occurred.

Duty to Protect

Duty-to-warn or duty-to-protect laws are also common, although not as universal as child abuse reporting laws, and there is no federal statute to guide state laws on this matter. These laws grew out of the *Tarasoff v. Regents of the University of California* rulings in 1974 and 1976. In this case, Prosenjit Poddar communicated to his psychologist (who was employed by Cowell Memorial Hospital at the University of California at Berkeley) his intention to kill Tatiana Tarasoff. At the psychologist’s request, the police detained Poddar, but he was subsequently released. Although the psychologist and two psychiatrists at Cowell agreed that Poddar should be committed, the chief of the Department of Psychiatry disagreed, and no action was taken. Two months later, Poddar murdered Tarasoff. Tarasoff’s parents sued, arguing that Poddar should have been confined and that Tarasoff should have been warned of his threats. The case was initially dismissed, but in 1974 (*Tarasoff I*), the California Supreme Court ruled that therapists have a duty to warn a threatened person. The case was heard again in 1976 (*Tarasoff II*). In this ruling, the police were released from liability, but the court ruled that therapists have a duty to *protect* an intended victim:

When a therapist determines ... that his patient presents a serious danger of violence to another, he incurs an obligation to use reasonable care to protect the intended victim against such danger. This discharge of duty may require the therapist to take one or more of various steps ... it may call for him to warn the intended victim or others likely to apprise the victim of the danger, to notify the police, or to take whatever other steps are reasonably necessary under the circumstances.

Thus, based on the second *Tarasoff* ruling, therapists do not simply have a duty to warn an intended victim but must take steps to protect an intended victim.

Although most psychologists are likely familiar with the *Tarasoff* rulings, it should be noted that states differ in terms of their duty-to-protect requirements and that not all states have adopted laws that follow the *Tarasoff* ruling, which covered only the state of California. The majority of states do have a mandatory duty to warn. However, in some states the duty to warn is considered permissive, meaning that a breach of confidentiality is permitted but not required. And a small number of states have no statutes regarding the duty to warn (Johnson, Persad, & Sisti, 2014; see also www.ncsl.org/research/health/mental-health-professionals-duty-to-warn.aspx). As noted, APA's ethical code indicates that confidential information should be disclosed, where permitted by law or mandated by law for valid purposes, including to protect the client or another person.

Privileged Communication

Whereas confidentiality is more of an ethical than a legal principle, *privileged communication* is a legal term that prevents the disclosure of information provided in confidence to certain individuals (with exceptions as mandated by law). Attorney–client privilege is the most well-known type of privilege, whereby information transmitted by a client to that individual's attorney is considered private and cannot be revealed. In many states, psychologists are also granted privilege. However, school psychologists employed in schools are less commonly granted privilege. If psychologists are granted privilege, they cannot be compelled to reveal communications with a client without the client waiving the right to privilege. If state laws do not consider psychologist–patient communications to be privileged, then the psychologist can likely be compelled to share communications in a court of law. However, even in states in which communication between a therapist and client is considered privileged, the state may allow a judge to waive privilege.

Conclusion

As should be clear from this chapter, legal and ethical issues are complex and multifaceted. They are also not static but rather dynamic, changing over time. Ethics are influenced by legal mandates, and legal mandates can be influenced by ethical principles. For example, prior to the *Tarasoff* rulings, the ethical code of APA stated confidentiality rights in more absolute terms than it does today. However, even today, not all states have a duty-to-warn/protect clause. Thus, it is imperative that school psychologists be familiar with the statutes and case law in their state of practice. Much of what school psychologists do is guided by federal legislation, state legislation, and ethical principles. Given this, it is important that school psychologists stay up-to-date in all areas. Reading professional newsletters, attending to announcements of changes in legislation, and engaging in professional continuing education activities relevant to legal and ethical issues are all important means for ensuring one's practice as a school psychologist remains legally compliant and ethically responsible.

Discussion Questions and Activities

1. Search websites such as Wrightslaw (Wrightslaw.com) to see what recent court cases have been decided regarding services for children with disabilities. Review these cases in the context of the IDEIA regulations.
2. To school psychologists currently being trained, the requirement that all students (regardless of their disability status) be provided with a FAPE likely seems unquestionable. Research, through readings or talking to educators, parents, or adults with disabilities, what services for children with disabilities were like prior to the passage of Public Law 94-142.
3. IDEIA is detailed in its requirements, but it can be overwhelming for parents to understand. Talk to parents of children with disabilities about their experience with the special education process: Have they understood their rights? Do they know what is in their child's IEP? Have they been satisfied with their child's experience? What suggestions do they have for improving the special education process?
4. Children with disabilities who do not qualify for special education services may be eligible to receive accommodations under Section 504. However, the provision of these services is variable. What is your school district doing to comply with Section 504? How are students in need of accommodations identified? What accommodations are typically offered to these students?
5. Consider an ethical dilemma you have had or have heard about. Examine the NASP and APA ethical codes and list the guidelines that apply to your dilemma and what the guidelines suggest in terms of resolving your ethical dilemma.

Chapter 8



The School Psychologist's Role in Assessment

Assessment is one of the more controversial topics in school psychology. If one were to interview 10 school psychologists on their views of assessment and what constitutes an appropriate evaluation, there would likely be significant disagreement. Historically, school psychologists have been tied to assessment in terms of their job function (as discussed in [Chapters 2](#) and [6](#)). However, more recently, many school psychologists have attempted to move away from the evaluator/diagnostician role, at least as their primary role. As should be clear from earlier chapters, we do not endorse the diagnostician role as one to which school psychologists should be primarily tied. However, we do believe that assessment is critical in identifying youth who may benefit from additional and intensive services, as well as tracking the progress of these students over time. Historically, school psychology assessment has been focused on standardized testing, particularly using measures of intellectual ability and achievement for determining diagnosis and/or eligibility for special education services. However, when assessment is viewed in the context of the problem-solving process (as outlined in [Chapter 3](#)), it should be clear that the traditional view is limited. The view of school psychologists as problem solvers has gained momentum, with a dramatic increase in the discussion regarding the role of

assessment as part of a problem-solving process, most notably in the context of the response to intervention (RTI) and multi-tiered systems of support (MTSS) paradigms. Although much has changed in recent years, what has not changed is that assessment and evaluation in critical decision making remains an important, controversial, and highly debated topic within the field.

A helpful distinction between assessment practices that have historically been used by school psychologists and problem-solving assessment is made by Howell and Nolet (2000), who differentiated between evaluations conducted for purposes outside the classroom and those conducted for purposes inside the classroom. Evaluations conducted for outside purposes include determination as to whether a child meets the criteria for a certain disability category (e.g., specific learning disability [SLD], emotional disturbance [ED]). Evaluations conducted for inside-the-classroom purposes are those to identify students who need specific skills, inform intervention decisions, and monitor implemented interventions. At a broader level, inside-the-classroom assessments may be conducted to determine whether educational programs are having the intended positive effect. Evaluations with an inside purpose focus on gathering information to help answer the questions that guide the problem-solving process (i.e., What is the problem? Why is it occurring? What can we do about it? Did it work?) in an objective manner. This type of assessment is formative in nature; it is conducted in an ongoing fashion to guide decision making at all levels of problem solving (e.g., individual child, classroom, school, district). Although trends are changing, many school psychologists have historically engaged primarily in assessment focused on outside-the-classroom purposes, with significantly less attention paid to inside, intervention-focused assessment. With the increased focus on accountability, RTI, and MTSS, however, we are seeing an increase in the use and value of inside-the-classroom assessment in school psychology.

We acknowledge that standardized norm-referenced assessment practices may be useful for some evaluation purposes (e.g., comparisons of

performance across schools, comparison of a student's performance with that of a normative sample). We are also aware that most, if not all, school psychologists in training are still expected to learn certain standardized assessment measures and procedures—and that these measures will continue to be used in the schools. The purpose of this chapter is to present an overview of different assessment methods and techniques. We outline some common assessment techniques utilized in school psychology practice and include assessments that are used for a variety of evaluation purposes. We give an overview of standardized, norm-referenced measures, as well as alternative methods of assessment. We conclude this chapter with an integrated view of assessment and the problem-solving process.

Assessment Standards and Psychometric Properties

Before discussing specific assessment techniques, it is important to provide some background regarding assessment standards and psychometric issues. Understanding the reliability and validity of instruments is a key part of evaluating the usefulness and appropriateness of assessment measures and systems. Although a complete overview of these important psychometric properties is beyond the scope of this chapter, we briefly review these concepts.

Assessment Standards

Most ethical codes concerned with education and psychology address assessment standards in some manner. For example, as noted in [Chapter 7](#), the ethical codes of NASP and APA require that psychologists be knowledgeable about the psychometric properties of instruments and use instruments appropriate to the purpose of the evaluation. In addition, the *Standards for Educational and Psychological Testing* (2014) was published in a joint effort of the American Educational Research Association, the APA, and the National Council on Measurement in Education. These standards are divided into three parts: (1) foundations (including standards related to reliability and validity and fairness in testing), (2) operations (including test development, test administration, and rights and responsibilities of tests takers and users), and (3) testing applications (including use of tests for program evaluation and accountability). The standards are quite numerous and lengthy, covering everything from the importance of using reliable and valid measures to best practices in assessing individuals of diverse linguistic backgrounds to standards relating to the use of tests in specific applied settings (e.g., educational testing and employment). Related specifically to

assessment in educational settings, the Joint Committee on Testing Practices has published the *Code of Fair Testing Practices in Education* (2004; available at www.apa.org/science/programs/testing/fair-testing.pdf), which provides guidance for both test developers and test users in four different areas: developing and selecting appropriate tests, administering and scoring tests, reporting and interpreting test results, and informing test takers. These guidelines are intended to help professionals develop and use tests that are fair to all individuals. Readers are encouraged to familiarize themselves with these various standards and general best practices in assessment.

Reliability

The reliability of a measure refers to the *extent to which the measure is consistent*. This consistency can be shown across the items within the measure (internal consistency reliability), over time (test–retest reliability), across respondents or raters (interrater reliability), and across different forms of the same measure (alternate-form reliability). Reliability coefficients are expressed as correlation coefficients ranging from 0.00 (no association, meaning no reliability) to 1.00 (perfect reliability). An important concept related to reliability is the *standard error of measurement*, which is the amount of error associated with a score. The lower the reliability of a measure, the larger the standard error of measurement, and the less we can be assured that the measure yields consistent results. The standard error of measurement can be used to form confidence intervals, or ranges of scores that are likely to contain an individual’s “true” score (Sattler, 2018). Importantly, not all forms of reliability should be expected to be high. For example, interrater reliability or agreement between parents and teachers on behavior rating scales is typically low-to-moderate (De Los Reyes et al., 2015). This does not necessarily indicate that the test is unreliable, but instead may reflect that parents and teachers often observe, and therefore rate, different behaviors in different settings.

Validity

Validity refers to *the extent to which a test measures what it is intended to measure*. Although validity is generally viewed as a unitary construct, there are various ways of determining validity. Traditionally, the three main forms of validity are *content*, *criterion*, and *construct*. Content validity is whether the items on the test are representative of the domain they are intended to evaluate (e.g., Do items on a depression inventory actually measure depression, or do they represent another, perhaps related construct, such as anxiety?). Criterion validity has to do with the relationship between the score on the measure and an outcome, such as a classification. There are two types of criterion validity: concurrent validity (which examines the test score as it relates to some currently available outcome) and predictive validity (which examines the test score as it relates to future performance). Construct validity is considered to be the overarching or superordinate form of validity. This notion refers to whether the test measures the particular construct it is intended to measure. When evaluating construct validity, both convergent validity (whether the test correlates with other measures of the same or similar construct) and discriminant validity (whether the test does *not* correlate with measures of unlike constructs) are evaluated (Sattler, 2018).

Although validity is often thought of as relating specifically to the “technical adequacy” of a measure, Messick (1995) argues that one must also consider the “social consequences of test interpretation and use” (p. 744). As such, Messick refers to both evidential bases of validity (the psychometric/technical adequacy of a measure) *and* consequential bases of validity (the appropriateness of a test’s use in terms of social consequences). The consequential basis of validity is an “appraisal of the value implications of score meaning” (p. 748), which relate to labels (e.g., emotional disturbance) and actions generated as a result of testing (e.g., special education eligibility). Thus, Messick argues that we should evaluate tests based not only on their psychometric grounds but also on their ethical

grounds. The *Standards for Educational and Psychological Testing* (2014) also emphasizes the importance of considering the consequences of testing as a key aspect of validity, noting that test developers and consumers have an obligation to evaluate both the *intended* consequences (e.g., grouping ability) and *unintended* consequences (e.g., biased groupings or discriminatory actions based on grouping decisions) of using an assessment or measurement procedure in practice.

Clearly, both reliability and validity are important in helping school psychologists evaluate whether they should use a certain test for a given purpose. Although test developers should attend to these issues when developing new assessment instruments, it is imperative that test users also attend to these issues, especially those related to validity, because the documentation of a test's validity tends to be an ongoing process beyond studies prior to a test's publication. For readers interested in further discussion of validity and how it relates to practice, we recommend reading Kane's (2013) article on the topic that is geared specifically toward a school psychology audience.

Intellectual Assessment

As discussed in [Chapter 6](#), school psychologists spend much of their time in assessment-related activities. In terms of actual assessment measures administered, standardized measures of intellectual ability (IQ tests) are some of the most commonly used, with the Wechsler intelligence scales (Wechsler, 2008, 2012, 2014) consistently being the most widely used. Wilson and Reschly (1996) surveyed school psychologists during the 1991–1992 school year and compared school psychologists’ use of certain assessment instruments in that year with their use earlier in 1986. The Wechsler scales were the most commonly administered *measures* at both times (although observation was the most commonly used assessment *method* in 1991–1992). Almost all school psychologists in 1991–1992 reported that they used the Wechsler scales, with the average use being about nine times per month. Other measures of intelligence were used, but their use was reported by less than half of the school psychologists.

In another survey, school psychologists reported that intellectual measures, behavior rating scales, and projective measures were the most commonly used assessment techniques (Hosp & Reschly, 2002)—reporting that they administered an average of 15 intellectual measures a month (these were not broken down by specific measures). In a more recent study (Benson et al., 2019), the Wechsler Intelligence Scale for Children—Fifth Edition (WISC-V) was the second most commonly used measure with 80% of school psychologists reporting that they used this measure, with the average use per month being 3.49 times. Almost all school psychologists (over 95%) reported using at least one cognitive measure in the past year. Benson and colleagues (2019) note that although the use of other types of assessment measures has changed over time, the use of intellectual measures—and in particular, the WISC—has remained quite stable. This is consistent with a survey of school psychologists on the assessment of reading

disabilities and the perceived usefulness of IQ measures (Machek & Nelson, 2010). In general, more than half of the respondents indicated that they believed IQ measures could be useful in understanding a child's disability, and 86% indicated that IQ measures should be used to rule out intellectual disabilities when working within an RTI and MTSS context. Thus, although this study did not ask about the actual use of IQ measures, results implied that many school psychologists see utility in their use and, therefore, are likely to continue to use them at a relatively high rate.

Although measures of intellectual ability are commonly used, they are certainly not without controversy. A complete discussion of the controversy surrounding IQ instruments is beyond the scope of this chapter, but numerous other books, chapters, journal articles, and scholarly talks are available for this purpose (see [Chapter 3](#) for our earlier discussion of some of these critical issues). We outline briefly some of the main issues involved in this controversy and encourage readers to seek additional information. Although past debates regarding IQ tests primarily centered on whether these measures are biased against certain populations (e.g., students from racially and ethnically minoritized backgrounds or those for whom English is not their first language), more recently debate has focused on the utility of these measures, although the issue of potential bias has not been resolved. Also, as RTI methods have grown in popularity, controversy regarding the use of IQ measures has expanded, particularly within the context of *identifying* SLDs.

The question of *what* exactly is being assessed via IQ measures is theoretically complex. A number of different theories of intelligence have been developed over the years. In general, these theories can be placed into two different categories: (1) those that focus on intelligence involving a *general factor* (generally referred to as *g*) and (2) those that subscribe to the notion that intelligence has *multiple factors*. Even most professionals who subscribe to the notion of a *general factor* of intelligence agree that there are a variety of specific skills or abilities that contribute to a person's overall level of intelligence. However, those who subscribe to a multiple-factor theory of

intelligence believe that these different facets of intelligence are distinct and cannot be simply combined to obtain one general intelligence factor (Sattler, 2018). One of the most well-formed and well-researched theories of intelligence is the Cattell–Horn–Carroll (CHC) theory. This theory consists of three levels of abilities: Stratum I, which consists of a large number of narrow abilities; Stratum II, which are clustered broader ability categories; and Stratum III, which is an overall or general ability factor (Floyd, 2010; Schneider & McGrew, 2018). Just as there are many theories of intelligence, there are many definitions of intelligence. In reviewing these definitions, Sattler (2018) noted that many definitions of intelligence include the ability to adapt to the environment, to learn, and to think abstractly.

The issue concerning whether IQ measures have *treatment validity* has received even greater attention in school psychology as researchers and practitioners are advocating for a more direct link between assessment and intervention. Notably, if the goal of assessment is to guide treatment planning, how do results from traditional IQ tests fit with this goal? It is clear that IQ measures do have moderate predictive validity; children with higher scores are more likely to perform well in school than those with lower scores, with the correlation between IQ scores and grades being about 0.50 (Neisser et al., 1996). However, as Reschly (1997) noted, IQ measures are used after children begin to perform poorly in school rather than as predictive measures, and what is needed for these children is to identify how to improve academic performance rather than to confirm that there is a problem.

Historically, the use of intellectual measures has been necessary to help determine whether a child qualified for special education services. Prior to the Individuals with Disabilities Education Improvement Act (IDEIA 2004), identification of SLDs was required to involve a “severe discrepancy between achievement and intellectual ability.” The definition of intellectual disabilities is “significantly subaverage intellectual functioning, existing concurrently with deficits in adaptive behavior” (34 C.F.R. § 300.8)—however, the identification of children within the intellectual disability category has

produced far less controversy than the SLD category in recent years. Given that the procedures for identifying both SLD and intellectual disability have been directly tied to intellectual measures, it has been difficult for school psychologists to get away from administering IQ tests, even if such assessments do not seem to be necessary to develop an appropriate treatment plan for a child. However, given the changes to the definition of an SLD in IDEIA 2004 (discussed in [Chapter 7](#)) that eliminate the requirement that students have a severe discrepancy between their intellectual and achievement abilities to be classified as having an SLD, the issue of what constitutes an SLD and how best to identify an SLD have created significant debate within school psychology and special education communities. Although IDEIA 2004 provides that the RTI approach *can* be used in the identification of SLDs, research on how this approach *should* be used is lacking. RTI procedures have historically been used as a way to identify children who may benefit from preventive services (e.g., increased academic instruction in reading) and to rule out inadequate instruction as a potential cause for problems rather than to classify and identify children for special education. Debate about RTI procedures, particularly in the identification of SLDs (e.g., Fletcher & Vaughn, 2009; Reynolds & Shaywitz, 2009; VanDerHayden, 2018), is likely to continue.

Based on what we have seen in the field over the past decade or so, we believe that, even as RTI becomes more and more prevalent, the use of IQ tests will not disappear from the practice of school psychology. For intellectual measures to be used responsibly, it is important that users understand what these measures are and what they are not. IQ measures provide an estimate of *current* intellectual functioning. Although IQ scores are relatively stable in most individuals, variation in scores may occur across testing times and settings, and it is important to understand that there may be variations in an individual's IQ score across time as a result of changes in environment or circumstances (see Nisbett et al., 2012; Sattler, 2018). It is important that users and consumers of IQ measures understand that these measures do not only assess some "innate" intellectual ability. Although

genetics and biology obviously play a role in the development of intellectual ability, environmental factors, such as early exposure to reading and quality of environment in the infancy and preschool years, are also important (see Nisbett et al., 2012, for a review of biological and social factors influencing intelligence and associated implications). School psychologists also need to understand that the scores obtained from IQ measures are *estimates* of a person's true abilities. Confidence intervals (CIs) and the standard error of measurement (SE_m) are both important in interpreting the limits or realistic ranges of test scores. The inclusion of CIs and SE_m when reporting results helps demonstrate that the obtained IQ score is not the specific IQ but rather the best estimate of a person's actual current intellectual ability.

Before deciding to use an IQ measure, it is important to determine whether it is needed and justified for the decision that is to be made. Using a measure just because it is typically what is administered or because "that's just the way it is done" is not good practice and has likely contributed to some of the negative perceptions of IQ measures. It is also important to choose a measure that will provide valid information. School psychologists must remember that although an instrument may have adequate psychometric properties, it is not necessarily valid for the purpose or the populations for which it is being used. For example, an IQ measure may be a valid measure of current intellectual functioning, but it is not a valid measure of whether a child has impairments in reading. While an intelligence test normed on a U.S. English-speaking population may be a valid measure of current intellectual functioning for a child who is a U.S. citizen and a native English speaker, it is likely not a valid measure of current intellectual functioning for a child who recently emigrated from Mexico and speaks little English. When interpreting results, it is also important to remember that no decisions should be made on the basis of any single data point (i.e., one test score) alone. Results from the assessment must be interpreted *within the context* of other information. For example, ways that the child approached the task are important to consider: Did the

child rush through items and complain about being there, or was the child focused and on task? Are there other pieces of information that may argue against a certain conclusion? For example, perhaps a child scored poorly on an IQ measure but has always obtained adequate grades in school and reported getting little sleep the night before. In this case, it seems likely that the results from the IQ measure may underestimate the child's true abilities—perhaps because of extreme fatigue.

Historically, school psychologists have had little choice when selecting an IQ measure, but an increasing number of such measures are being developed, and many of the newer tests bear little resemblance to the traditional IQ measures. Even with the increasing availability of measures, the WISC-V (Wechsler, 2014) remains the measure with which most clinicians are familiar. Parallel Wechsler scales for young children (Wechsler Preschool and Primary Scale of Intelligence—Fourth Edition [WPPSI-IV]; Wechsler, 2012) and adults (Wechsler Adult Intelligence Scale—Fourth Edition [WAIS-IV]; Wechsler, 2008) are also commonly used, although less so because of the age of school clientele. Children 16 years of age and over are tested with the WAIS, and children ages 2 years, 6 months to 7 years, 7 months are tested with the WPPSI. There is some overlap between tests: children ages 6 years, 0 months through 7 years, 7 months can be administered the WPPSI or the WISC-V; children age 16 can be administered the WISC-V or the WAIS.

The WISC-V has undergone some significant revisions from its earlier versions in terms of its factor structure. In the current version, there are five primary index scores: Verbal Comprehension Index, Visual Spatial Index, Fluid Reasoning Index, Working Memory Index, and Processing Speed Index. Two subtests must be administered to obtain each of the primary index scores; thus, a total of 10 subtests are primary subtests. The Full Scale IQ is derived from seven of the 10 primary subtests: two Verbal Comprehension subtests, one Visual Spatial subtest, two Fluid Reasoning subtests, one Working Memory subtest, and one Processing Speed subtest.

The WISC has been translated or adapted to many languages, with norms for a number of countries.

Another IQ measure with a long history of use in school psychology is the Stanford–Binet (SB), currently in its fifth version (SB5; Roid, 2003). Like the WISC-V (Wechsler, 2014), the SB5 yields a Full Scale IQ score, as well as several composite scores (Fluid Reasoning, Knowledge, Quantitative Reasoning, Visual Spatial Processing, and Working Memory). Verbal and nonverbal IQ scores can also be obtained. However, Sattler, Salerno, and Roberts-Pittman (2018) noted that although factor-analytic studies have found support for a *g* on the SB5, neither a two-factor nor a five-factor model has been supported at all ages.

Several other measures of IQ exist. The Woodcock–Johnson Tests of Cognitive Abilities—Fourth Edition (WJ-IV-COG; Schrank, McGrew, & Mather, 2014) is based on the CHC theory of intelligence, with subtests designed to target factors of intelligence as outlined in this theory (Schneider & McGrew, 2018). The seven broad CHC factors measured in the WJ-IV-COG include fluid reasoning, comprehension–knowledge, short-term working memory, cognitive processing speed, auditory processing, long-term retrieval, and visual processing. The measure has adequate reliability and validity (see McGrew, LaForte, & Schrank, 2014). The Differential Ability Scales—Second Edition (DAS-II; Elliot, 2007) is another standardized measure of intellectual ability that is used with some frequency. Sattler, Dumont, Willis, and Salerno (2018) reported that the measure has strong psychometrics and, given the lower age range for this test (down to 2 years, 6 months), it can be a good choice of a measure for evaluating preschool-age children. The Kaufman Assessment Battery for Children—Second Edition (KABC-II; Kaufman & Kaufman, 2004) and the Kaufman Assessment Battery for Children–II Normative Update (KABC-II NU; Kaufman & Kaufman, 2018) provide users with two theoretical models (the Luria neuropsychological model and CHC theory) that can be used to interpret the results of this measure. The KABC-II is purported by the authors to be more culturally fair than other traditional measures of IQ—it

attempts to achieve this fairness by limiting verbal instructions and responses, as well as using items with limited cultural content.

In addition to these more traditional measures of IQ, which tend to have a significant verbal component to them, are “nonverbal” measures of intelligence designed to rely less heavily on verbal skills. Some of these measures include the Wechsler Nonverbal Scale of Ability (WNV; Wechsler & Naglieri, 2006), the Universal Nonverbal Intelligence Test—Second Edition (UNIT2; Bracken & McCallum, 2016), the Leiter International Performance Scale—Third Edition (Leiter-3; Roid, Miller, Pomplun, & Koch, 2013), and the Comprehensive Test of Nonverbal Intelligence—Second Edition (CTONI-2; Hammill, Pearson, & Weiderholt, 2009). These nonverbal tests have gained in popularity as school populations have become more diverse, with larger non-English-speaking populations. Nonverbal tests can also be helpful when evaluating children with limited language abilities resulting from disabilities. Although nonverbal measures of intelligence correlate substantially with more traditional measures of intelligence and thus appear to still measure the theoretical construct of general intelligence, significant variability exists in the psychometric properties of nonverbal measures. DeThorne and Schaefer (2004) offer three considerations when selecting nonverbal IQ measures. First, the measure should be psychometrically sound. This information can be gathered from technical manuals associated with the measures. Second, consider the special needs of the population or individual being evaluated. For instance, the UNIT2 relies on nonverbal instructions and is useful for evaluating individuals with receptive language difficulties. Third, high-stakes assessments that result in diagnoses, treatment eligibility, and or educational placement should rely on the use of multidimensional batteries.

Assessment of Academic Skills

In contrast to the assessment of intellectual abilities, relatively less controversy surrounds achievement testing. This situation likely occurs in part because achievement tests are considered to have more “face validity” than IQ measures. They are intended to measure current academic performance, and the subtests on these measures clearly involve basic academic skills, such as reading, math, and writing. However, in recent years, discussion of how best to evaluate and identify SLDs, and therefore, also how to evaluate academic skills, has grown. Traditionally, academic skills were evaluated via standardized, norm-referenced measures of achievement. Increasingly, alternative methods of assessment, such as curriculum-based assessment (CBA) and curriculum-based measurement (CBM), a specific type of CBA, have been growing in popularity.

Although historically standardized achievement tests have been widely used, the use of CBA methods has increased. School psychologists who responded to Wilson and Reschly’s (1996) survey indicated that they were using standardized achievement tests much more frequently than they were using CBA methods. In this survey, the three most common achievement measures were used, on average, approximately eight times per month, and less than 20% of respondents were using any type of CBA. In another survey, school psychologists also reported using standardized achievement tests more often than CBA methods (Chafouleas, Riley-Tillman, & Eckert, 2003). However, Shapiro, Angello, and Eckert (2004) indicated that more school psychologists reported using CBA in 2000 (54%) than in 1990 (46%). In addition, school psychologists who had recently completed their graduate training were much more likely to have received training in CBA than were those who had been in the workforce for some time. Shapiro and colleagues reported that, of school psychologists who have been working 1–3 years, 90% had received training in CBA during their graduate education, whereas

less than 20% of those in the workforce 13 years or longer had received training in CBA in their graduate programs. Training in CBA and the use of CBA have been noted to be significantly correlated, and school psychologists do rate CBA as acceptable; in fact, these methods have been rated as more acceptable than norm-referenced measures of achievement (Chafouleas et al., 2003).

In the most recent comprehensive survey of school psychologists' assessment practices (Benson et al., 2019), CBM probes were some of the most commonly used assessment tools. CBM for oral reading, reading comprehension, and early literacy were all in the top 10 most commonly used measures in terms of average use per month—although the percentage of school psychologists who reported using these was under 30%. More school psychologists reported using standardized achievement measures than CBMs but use per month was lower. For example, the Kaufman Test of Educational Achievement (KTEA) was used by 62% of respondents with an average use of 1.94 times a month; CBM oral reading fluency probes were used by 29.3% of school psychologists with an average use of 2.88 times per month. The greater monthly use of CBM probes may reflect that they are used in screening and progress monitoring—so there are more opportunities for these to be used. In addition, it is important to note that in many school districts, professionals other than school psychologists administer achievement measures—both CBM/CBA measures and standardized achievement measures. Thus, surveys of school psychologists likely do not reflect overall use patterns of these measures.

In the following sections, we discuss the use of both standardized, norm-referenced measures of academic skills and CBA. Even in districts where these measures are administered by special education teachers (or other qualified professionals), school psychologists need to be familiar with these measures to aid in interpretation and intervention planning.

Standardized, Norm-Referenced Achievement Tests

Although CBA methods, notably CBM, appear to be gaining in use, standardized, norm-referenced achievement tests are still frequently used to evaluate academic skills. Some of the more common measures include the Kaufman Test of Educational Achievement—Third Edition (KTEA-III; Kaufman & Kaufman, 2014), Woodcock–Johnson Tests of Achievement—Fourth Edition (WJ-IV; Schrank, Mather, & McGrew, 2014), the Wechsler Individual Achievement Test—Third Edition (WIAT-III; Wechsler, 2009), and the Wide Range Achievement Test—Fifth Edition (WRAT-5; Wilkinson & Robertson, 2017). All of these measures include subtests intended to assess a variety of achievement abilities (e.g., reading, math, written language, oral language). In addition to these broad measures of academic achievement are measures that assess academic ability in one specific area, such as the KeyMath–3 Diagnostic Assessment (Connolly, 2007), Woodcock Reading Mastery Tests—Third Edition (WRMT-III; Woodcock, 2011), and the Gray Oral Reading Test—Fifth Edition (GORT-5; Wiederholt & Bryant, 2012). These single-subject tests are used less frequently than the multiple-subject tests and are typically used to follow up on problems noted when using a comprehensive achievement measure.

A couple of trends can be noted with regard to the development of academic achievement tests. First, several achievement tests have been developed to match the IDEIA 2004 categories of SLDs (i.e., oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation, and mathematics reasoning). In addition, achievement tests have been increasingly co-normed with parallel IQ tests, theoretically for a more accurate comparison of whether there is a significant discrepancy between a student’s intellectual ability and achievement performance. For example, the KTEA-III, WJ-IV, and WIAT-III all have subtests that match the seven areas of SLD identified in IDEIA. Each of these tests is also linked to an IQ test, either through co-norming (as was done with the WJ-IV tests of achievement and cognitive ability) or via administering intelligence tests to a subset of those in the achievement test sample (as was done with the WIAT-III and associated Wechsler intelligence

scales). The WRAT-5 is more limited in scope, with only four subtests measuring word reading, sentence comprehension, spelling, and math computation.

A complete review of the available tests of achievement is beyond the scope of this chapter. Each of the comprehensive multiple-subject tests of achievement described here has adequate psychometric properties. School psychologists should make sure they stay updated on the literature regarding the psychometric properties of the achievement measures they may use to ensure they are selecting those that are most psychometrically sound. Which of these measures one ends up using (if a standardized, norm-referenced test is being used at all) may also depend in part on personal preference and availability in the particular school or district in which one is employed.

Curriculum-Based Evaluation/Assessment/Measurement

The terms *curriculum-based evaluation* (CBE), *curriculum-based assessment* (CBA), and *curriculum-based measurement* (CBM) are three terms associated with the focus of assessment practices that are tied directly to the curriculum. CBE (evaluation) is a broader term that refers to an inquiry-based, problem-solving, and decision-making procedure that was “developed to help educators solve learning and behavior problems by making good decisions about *what* [curriculum] and *how* [instruction] to teach” (Hosp, Hosp, Howell, & Allison, 2014, p. 5, original emphasis). CBA (assessment) is a type of assessment that can occur within CBE that involves aligning the assessment procedures and content with curriculum (the content that is being taught) or standards (the content expected to be learned). CBM (measurement) is a standardized general outcome measure (GOM) that consists of a set of standard administration, scoring rules, and a set of materials representing the contents of the curriculum, with explicit criteria for scoring and interpreting performance. Although these terms may seem confusing, one point of clarification is that with CBA, the term *assessment* involves gathering information about a student’s performance in

the curriculum in which the student is being taught (e.g., mastery measures containing discrete skills taught in the curriculum, reading samples from curriculum texts), with a focus on identification of a student's mastery of skills, instructional level, and acquisition rate or rate of learning or acquiring new material (for more information, see Burns & Parker, 2014; Shapiro, 2004).

CBE and CBA are similar in that both include rules for decision making and are used to link assessment to instructional planning. Where they differ is that CBA is primarily focused on identification of a student's "instructional level," so that students can be placed in instructional materials that are not too difficult but are challenging enough to promote learning (Burns & Parker, 2014). CBE focuses beyond this on rate of performance compared to external standards and also on determination as to why a student is not learning sufficiently with the additional assessment of other factors (e.g., instructional strategies) that might be playing a role (Hosp et al., 2014). Furthermore, while CBA tends to rely on classroom materials in the assessment process, CBE combines the use of classroom materials and curriculum-independent materials, such as CBM (Hosp et al., 2014). So, CBE can include CBA and CBM to determine *what* to teach and *how* to teach to enable learning to occur (Hosp et al., 2014).

CBM involves a narrower focus on measurement or GOMs that are indicative of student growth in basic academic skills (i.e., reading, writing, spelling, math; Deno, 2003). CBMs are derived from sources other than the student's actual curriculum, but are closely aligned to the curriculum, thus allowing for ongoing or periodic monitoring of a student's performance in relation to the curriculum, allowing one to measure a student's progress through the curriculum and whether that progress is adequate. CBM can be administered repeatedly and frequently throughout the year and can be used as the basis for educational decision making and student planning. As noted, curriculum-based approaches to evaluation, assessment, and measurement are rapidly gaining in use as alternatives to standardized, norm-referenced achievement testing. CBM methods are intended to be time-efficient and

generally consist of probes that last 60 seconds to a maximum of several minutes.

As outlined in Shinn (2008), some of the common CBMs include:

1. Reading: The child reads aloud from a text for 1 minute. The total number of words read correctly is calculated.
2. Math: The child completes math problems during a 2- to 4-minute timing. The number of digits correct is calculated.
3. Spelling: The child writes dictated words for 2 minutes. The number of correct words and correct letter sequences are calculated.
4. Written expression: The child is provided with a story-starter and then asked to write for 3 minutes. The number of words written and spelled correctly as well as the number of correct word sequences can be calculated. (pp. 245–246)

For more details on specific curriculum-based methods, readers may want to consult Hosp, Hosp, and Howell (2016).

Although school psychologists often are not involved in the administration of CBM probes (because teachers usually give these measures), they must understand the data obtained from such probes and understand how to use these data in making decisions regarding services for children within the school context. Within the RTI, MTSS, and problem-solving model, CBE/CBA/CBM techniques are seen as an integral part of identifying children who may benefit from additional or specialized instruction, as well as tracking the progress of students over time to ensure that the instruction they are receiving is beneficial. Increasingly, schools are adopting programs in which all students are screened using CBM probes. For children who do poorly on these screenings, additional supports are put in place. As Shinn (2008) discussed, CBM may be used within a three-tiered model as follows:

- Tier 1: benchmark assessment three to four times per year to help identify students at risk; monitoring of student progress across the year.
- Tier 2: strategic monitoring on a monthly basis.
- Tier 3: frequent (e.g., weekly) progress monitoring on individualized goals.

One example of a specific CBM system that is widely used in the schools is the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) developed by researchers at the University of Oregon (see <https://dibels.uoregon.edu>, for more information). DIBELS is intended to be used to assess several of the “big ideas” in beginning reading skills. As outlined on the DIBELS website, these include:

- Phonemic awareness: the ability to hear and manipulate sounds into words.
- Alphabetic principle: the understanding that letters represent sounds and make up words, and the ability to use the relationship between letters and sounds to pronounce and spell words.
- Accuracy with fluency and text: reading words with no noticeable effort.
- Vocabulary: the ability to produce words to express meaning (expressive vocabulary) and the ability to understand the meaning of words (receptive vocabulary).
- Comprehension: “the essence of reading,” involving constructing meaning from text.

These big ideas are based on an analysis from the National Reading Panel (2000), which conducted a comprehensive review on how to effectively teach children to read.

The DIBELS system includes brief measures that address each of these areas. The measures are standardized and can be used over time to help

monitor the reading progress of students (Kaminski, Cummings, Powell-Smith, & Good, 2008; see <https://dibels.uoregon.edu>). Within the newest edition of the DIBELS system (the eighth edition), there are probes that cover grades K–8. Six subtests are included that address different measurement/big idea areas:

- Letter Naming Fluency (LNF), in which students are asked to name letters, is intended to provide a measure of risk for early literacy problems.
- Phoneme Segmentation Fluency (PSF), in which students are asked to verbally break words into their individual phonemes, is a measure of phonological awareness.
- Nonsense Word Fluency (NWF) is a measure of alphabetic principle and phonics that requires students to read nonsense words or to verbally produce the letter sounds in the nonsense word.
- Oral Reading Fluency (ORF) is a measure of fluency with connected text in which students are required to read passages aloud; this measures alphabetic principle and phonics, accuracy and fluency, and comprehension.
- The Maze task, in which students read a passage and are required to fill in missing words, is a measure of comprehension.
- Word Reading Fluency (WRF), in which students read aloud from a list of words, assesses alphabetic principle and phonics, as well as accuracy and fluency.

The DIBELS system contains benchmark goals for the beginning, middle, and end of the year to help determine whether students are achieving at an adequate level. Students considered to be at risk are provided with instructional support to attempt to increase their literacy skills (Kaminski et al., 2008; see <https://dibels.uoregon.edu>).

Another commonly used research-based CBM system is aimswebPlus (www.aimsweb.com). AimswebPlus is a system that school districts

can use to screen and benchmark students and progress monitor students' intervention progress in both reading and math for students in grades K–8. The assessment system available includes early literacy and early numeracy assessments for younger children, as well as assessments of reading vocabulary and comprehension, reading fluency, math computation, and math concepts/applications.

Significant research regarding CBM procedures over the past quarter-century, the strong advocates for the use of CBM procedures in the evaluation of student performance, and the link to academic interventions has led to CBM being used as a means of assessing academic achievement and, more important, of students' responsiveness to interventions. This method, which is viewed as highly acceptable by most school psychologists, more clearly ties assessment to intervention than do most other methods of assessing academic skills.

Brief Experimental Analysis

Although functional assessment methods have historically been tied more to behavior problems than to academic problems, this methodology has also been used to address academic issues. Daly, Witt, Martens, and Dool (1997) describe a functional approach to understanding academic failure as one that relates “academic performance to aspects of the classroom instruction that precede and follow student performance” (p. 555). They argued that because aspects of the classroom are external to the child, viewing academic difficulties from this perspective allows one to identify areas for instructional intervention. Daly and colleagues discussed five “reasonable hypotheses” about why students perform poorly from a functional perspective: (1) the student does not want to do the work, (2) the student has not spent enough time on the work, (3) the student has not had enough help to successfully complete the work, (4) the student has not previously had to do the work in the requested manner, and (5) the work is too hard for the student. If the function of the difficulty is identified, interventions can be

developed that match (e.g., if the student does not want, or is not motivated, to do the work, provide incentives for completion of the work).

When using a functional approach, hypotheses regarding the function of the academic problem are formed and then are evaluated using mini-experiments in a brief experimental analysis procedure (Jones, Wickstrom, & Daly, 2008). CBM techniques are integral to this process because the evaluator must be able to make quick, repeated assessments of a child's performance under different conditions. For example, a student's reading level may be assessed under several different academic interventions, each tied to a functional hypothesis (e.g., with a reinforcer for completing work, with repeated practice and correction). After the student's performance is assessed under these different conditions, the one that produces the most benefit is chosen to implement in an ongoing manner. CBM probes continue to be used to monitor the effectiveness of the chosen intervention.

Assessment of Social–Emotional, Behavioral, and Mental Health Functioning

The assessment of social–emotional, behavioral, and mental health problems has typically not generated as much controversy and discussion within the field of school psychology as has the assessment of intellectual ability and academic achievement. This is likely due to the fewer number of children being served under the IDEIA 2004 category of ED (5.5% of children ages 6–21 being served in special education for the 2018–2019 school year; U.S. Department of Education, 2020) compared with the number of children being served under the category of SLD (37.7% of children ages 6–21 in special education in 2018–2019; U.S. Department of Education, 2020). However, there are signs that attention to this topic is picking up. This trend is likely due to several factors, including an increased recognition that school psychologists have expertise in mental health issues, not just academic issues. In addition, the number of children identified as having ADHD, a disorder that requires an assessment of behavior, has increased. Although there are no exact numbers on school-based evaluations for ADHD, many children with ADHD who are eligible for special education services receive them under the other health impairment (OHI) category. The number of children being served in this category has risen significantly over time, with 16.2% of students ages 6–21 in special education in 2018–2019 classified under OHI (U.S. Department of Education, 2020).

As with the other areas of assessment, some controversy exists regarding the utility of certain measures in the category of ED. Much of the controversy centers on the use of projective assessment techniques (which almost always have significant problems with test–retest reliability and construct validity; see Whitcomb, 2018, for further discussion) versus the use of other techniques considered by many to be reliable and valid measures of emotional and behavioral functioning (e.g., observations, rating

scales, functional behavioral assessment [FBA] methods). Although earlier surveys of school psychologists' assessment practices indicated that behavioral rating scales were used less frequently than projective measures (e.g., Wilson & Reschly, 1996), this trend seems to be reversing. Hosp and Reschly (2002) reported that school psychologists administered slightly more behavior rating scales per month (17.2) than projective measures (15.2), and Shapiro and Heick (2004) reported that behavior rating scales were the most common assessment method used in cases involving a referral for emotional or behavioral problems, although one-third of school psychologists still regularly used projective measures. More recently, Hanchon and Allen (2013) found that although school psychologists recognize the need for a multimethod, multisource assessment model when ED is a classification consideration, in many instances, their actual assessments are missing recommended sources of data for making eligibility decisions, including classroom observations; parent, teacher, and student interviews; and behavior rating scales. In the most recent survey of school psychologists' assessment practices (Benson et al., 2019), about a third of school psychologists reported using projective measures in the past year (with the most common projective technique being the Sentence Completion Test) compared to 97% who reported using behavior rating scales in the past year. In fact, the Behavior Assessment System for Children—Third Edition (BASC-3) Teacher Rating Scale (Reynolds & Kamphaus, 2015) was the most commonly used assessment measure out of all measures, with an average use of 3.65 times per month and 91% of respondents reporting that they used this measure in the past year. The BASC-3 Parenting Rating Scale was the third most commonly used measure.

It is recommended that school psychologists use multimethod, multisource, and multisetting assessment of social-emotional, behavioral, and mental health problems (Whitcomb, 2018). These components are divided into three general areas: methods (e.g., interviews, observations, behavior rating scales), sources (e.g., parent, teacher, child), and settings (e.g., home, school, community). In addition to behavior rating scales,

numerous other procedures can be used in the assessment of social-emotional and behavioral functioning. These include interviews (with parents, teachers, and the child), observations (which may be either informal or formal), and self-report measures. In addition, FBA methods are currently seen as key in linking assessment to intervention in the area of emotional and behavioral problems. Each of these methods is described briefly in this chapter. However, as with the discussion of intellectual and achievement measures, this discussion is not intended to be a comprehensive overview of these methods but instead an introduction. School psychologists should consult other sources (e.g., Sattler, 2014; Whitcomb, 2018) for more detailed information.

Projective Techniques

We discuss projective assessment techniques first because they have the longest history in the assessment of emotional and behavioral problems, with their use dating back to at least the early 1920s (Whitcomb, 2018). Projective techniques include drawing techniques (e.g., Draw-a-Person, House–Tree–Person, Kinetic Family Drawing), thematic techniques (e.g., Children’s Apperception Test; Bellak & Bellak, 1949), and sentence completion techniques. These methods are all based on the assumption that, when presented with ambiguous stimuli, children will “project” their own feelings, thoughts, and emotional conflicts onto these stimuli. As noted, the use of projective techniques by school psychologists has historically been very common and are still used by approximately one-third of school psychologists.

Although projective methods continue to be used by some practitioners, they are certainly not without controversy. In fact, other than IQ measures, projective measures likely have created the most controversy within the field of psychology. The controversy regarding these methods stems from questions regarding the validity of these techniques: Do they really measure what they say they measure? Most projective measures lack adequate

psychometric properties, and many professionals argue that such measures do not reflect internalized feelings but are simply a sample of overt behavior. Others argue that at least some of the projective techniques have changed considerably over time (the Rorschach inkblot test with its more objective scoring system being the prime example). However, given the poor validity of many projective measures and the wide availability of other measures with superior psychometric properties, *we do not believe that projective measures should be routinely used in the schools*. They provide little useful information in terms of either diagnostic decision making or treatment planning. They may be helpful in building rapport with a child (because they are typically nonthreatening to a student and are sometimes perceived as fun) and may help generate hypotheses for further evaluation with measures with adequate psychometric properties. However, when used in this fashion, these measures cease to be truly assessment measures. Therefore, in our opinion, the use of projective measures is outdated, and they provide little to no useful information, either in terms of identifying problem areas or linking assessment to intervention.

Behavior Rating Scales

Although behavior rating scales have become increasingly popular (and psychometrically sound) over the past several decades, their use also dates back to at least the early part of the 1900s. Wickman (1928) discussed behavior problems as rated by children's teachers and divided problems into "attacking" traits and "withdrawing" traits, which are similar to the respective conceptualization of externalizing and internalizing problems today. However, it was not until much more recently that behavior rating scales became the well-standardized and normed tests that they are today. In 1973, Spivak and Swift reviewed the available behavior rating scales and found that although there were 19 such measures, only three had norms and reliability information. Today there are numerous behavior rating scales that

are well normed, are based on large standardization samples, and have extensive reliability and validity information.

Behavior rating scales are generally divided into two categories: broadband and narrowband. Broadband measures, such as the Child Behavior Checklist (CBCL) and Teacher's Report Form (TRF) that are part of the Achenbach System of Empirically Based Assessment (Achenbach & Rescorla, 2001) and the BASC-3 (Reynolds & Kamphaus, 2015), measure behaviors in a variety of domains and include subscales that evaluate both externalizing (e.g., aggression) and internalizing (e.g., anxiety, depression) difficulties. Narrowband measures assess functioning in just one domain (e.g., ADHD, depression). Broadband measures are particularly useful in gathering a significant amount of information in a relatively short period of time. However, because broadband scales do not provide detailed information on specific areas, narrowband scales are typically used to obtain more information on problems noted on broadband scales.

It should be noted that rating scales provide the point of view of the person completing the scale, and that different informants often do not agree on the severity (or even the presence) of behaviors. Thus, although it is an advantage that rating scales can be used to gather information from multiple sources and that many rating scales have parallel parent and teacher versions, it is up to the evaluator to integrate and interpret the findings from the scales.

As noted, behavior rating scales are the most common assessment method that school psychologists reported using for children referred for emotional and behavioral problems (Hanchon & Allen, 2013; Shapiro & Heick, 2004) and overall (Benson et al., 2019). This finding is encouraging given the positive qualities of behavior rating scales. However, school psychologists must ensure that they are using measures with adequate psychometric properties and that are germane to the referral question. In addition, school psychologists must remember that *scores do not dictate identification or diagnosis*. Scores on behavior rating scales provide data that can help in the diagnostic process, but these scores must be considered in

the larger context (e.g., Are the symptoms impairing? Have they been present for a significant amount of time and since early childhood? Can the symptoms be better accounted for by another concern?). In addition, behavior rating scales do not provide information that is directly linked to interventions. Behavior rating scales are more helpful in assessing the severity of a problem but are less useful in providing direction on what to do about those problems.

Interviews

Interviews are a commonly used method of obtaining information related to a child's social-emotional, behavioral, and mental health functioning, with informal clinical interviews being the most common method. Clinical interviews involve the practitioner asking the interviewee (e.g., child, parent, teacher) a series of questions regarding symptom presentation and background information in order both to obtain more information on the referral problem and to put this information in a broader historical and developmental context. In addition to the commonly used clinical interviews, there are also structured and semistructured interviews. These interviews are highly scripted and typically involve the interviewer asking a series of yes-no questions regarding the presence of symptoms (see Mazza, 2014, for a more in-depth review of these types of interview protocols). Although such interviews are relatively common in research and may be used in clinical practice—especially in the process of establishing a formal diagnosis—they are rarely used in school-based practice where they likely have less applicability and practitioners have less time to conduct these interviews (Whitcomb, 2018).

Clinical interviews are useful for several reasons. They allow the clinician to obtain a large amount of information on a wide variety of topics at one time in a flexible format. The flexible format of the clinical interview allows the clinician to build rapport with the interviewee. This is one reason interviews are typically conducted as the first step in the assessment process.

Interviews can also be used to obtain information from different sources and to informally compare the perceptions of the problems as well as to clarify issues. As is discussed in more detail later in this chapter, interviews can also be used to help conduct an FBA by asking questions about antecedents (i.e., what happens before the behavior) and consequences (i.e., what happens after the behavior). Although interviews have numerous advantages, as with all assessment methods, they also have disadvantages. Clearly, with informal clinical interviews, there is no way to evaluate their psychometric properties, and it is likely that different interviewers will obtain somewhat different information from the same respondent because of differences in questioning style, rapport built, and so forth. It is also possible that interviewers will have some biases that will influence their interpretation of the information presented. For example, if the interviewer has already formed an impression about the child, the interviewer may ask questions that are geared toward supporting this impression. With young children in particular, interviews can be difficult. Children may have difficulties verbalizing thoughts and feelings, and young children can easily become confused regarding temporal aspects of events. It is very important when interviewing not to ask leading questions but instead to make questions open-ended (e.g., instead of asking, “You like school, don’t you?” say, “Tell me what you think about school”; Hughes & Baker, 1990).

Although interviews are standard practice when conducting evaluations in clinical settings and are used frequently by school psychologists, we believe they are underutilized in school psychology. Shapiro and Heick (2004) indicated that only about one-third of school psychologists regularly use interviews with parents and teachers for children referred for emotional and behavioral problems, and that about 20% do not use interviews at all. In a more recent study (Hanchon & Allen, 2013), it was reported that close to 70% of school psychologists use teacher interviews in over 75% of the ED evaluations—however, only 57% use parent interviews in over 75% of their evaluations. In the Benson and colleagues (2019) survey, a developmental history interview with a parent/caregiver was the fourth most commonly

used assessment technique overall (average use of 2.91 times per month), although only 69% of school psychologists reported doing such an interview in the past year. Involving parents and teachers in the assessment process is critically important, and interviews are an easy method to solicit this involvement, as well as to obtain significant background information on the child. In fact, given the many assessment advantages of interviewing, we believe that the use of this method among school psychologists should be standard practice.

Observations

Observations are another commonly used assessment procedure. Shapiro and Heick (2004) reported that school psychologists conduct observations on most of the students they evaluate for emotional and behavioral problems; Hanchon and Allen (2013) reported that close to 70% of school psychologists use observations in over 75% of their ED evaluations. Benson and colleagues (2019) asked about specific types of observations with results showing interval-recording observations were the most frequently used, with 60% of school psychologists reporting they used this method.

Observations are typically done in a child's classroom or other school setting and often involve the assessment of several key behaviors of concern.

Observations provide the assessor with a direct picture of a child's problematic behaviors as well as positive behaviors (see Hintze, Volpe, & Shapiro, 2002, for an overview of common observation methods used in schools). In addition, the observer is able to see the child's behaviors in the context in which they naturally occur. This ecological-contextual information may be particularly helpful when conducting an FBA. The observer can obtain information on the child's behavior, as well as the context (including other children's and teachers' behavior) in which the behavior occurs and the antecedents and consequences of the behavior.

Although observations have clear advantages and we believe they are an important part of the assessment process, they are also relatively time-

consuming and can require extensive training. It is impossible to obtain data on many behaviors at once with observational techniques, as can be done with interviews and behavior rating scales. In addition, although theoretically observations are objective (because the observer directly sees the behavior), the observer can bias the observation interpretations by focusing on negative (or positive) behaviors. It is generally best to observe several behaviors and to include at least one positive behavior. It is also important to observe comparison peers to help determine whether the observed behavior of the child is unusual in the context of the child's classroom and peers (Whitcomb, 2018).

Direct Behavior Ratings

Direct behavior ratings (DBRs) are another assessment method that can be used to evaluate students' academic, social, and emotional behavior (Briesch, Chafouleas, & Riley-Tillman, 2016). Although most research has validated the use of DBRs for assessing prosocial behavior or externalizing problems, a few studies suggest it might also be useful for monitoring internalizing problems in schools (e.g., Dart et al., 2015). DBRs are a hybrid assessment method that mix features of behavior rating scales with characteristics of direct observations, balancing the strengths and limitations of both methods to create a more feasible and practical assessment approach. Similar to direct observations, DBRs are flexible (i.e., can be used to target any observable behavior), repeatable, occur in the place and moment of interest for intervention, and require low inferences about the nature of assessment results. Similar to behavior rating scales, DBRs are efficient, can be completed by informants other than the school psychologist, and require little training and effort to use effectively (Christ, Riley-Tillman, & Chafouleas, 2009). DBR is the only assessment method, so far, that was actually developed by school psychologists to specifically inform the practice of school psychology. All other assessment methods (described earlier) were originally developed outside of school psychology—

mostly in clinical psychology and behavior analysis—and have since been adopted and refined by school psychologists to inform our practice.

The DBR method involves (1) specifying and defining a target behavior to monitor (e.g., disruptive behavior), (2) directly observing the target behavior during a predetermined assessment window (e.g., for 20 minutes during whole-class mathematics instruction), and then (3) rating the target behavior immediately following the specified period of time in which the student is observed (e.g., as soon as whole-class mathematics instruction ends). The standard DBR format consists of three core target behaviors—academic engagement, disruptive behavior, and respectful behavior—that are rated along a response scale that is arranged on a number line from 0 to 10. Response scale anchors represent the relative frequency with which the behavior occurred during the assessment window, with 0 = 0% of the time (*never*), 5 = 50% of the time (*sometimes*), and 10 = 100% of the time (*always*). The rating form consists of operational descriptions and examples of each of the standard target behaviors. Raters are asked to mark the number along the line that “best reflects the percentage of total time the student exhibited each target behavior” and are reminded that their ratings for each behavior should be completed independently (and therefore do not need to total to 100%). Data from DBRs can be used for a variety of purposes, including screening, progress monitoring, and as part of a home-school communication system between the school and parents. Although the standard format DBR is the most commonly used in research and practice, many adaptations to this rating format and response scaling are possible, as long as practitioners stay true to the method’s key characteristics (Briesch et al., 2016). Examples of standard and adapted DBR forms, as well as instructions for how to customize your own DBR and train observers in this method, can be freely downloaded from

<https://dbr.education.uconn.edu>.

DBRs are typically completed by teachers in the classroom who are able to consistently and directly observe student behaviors. However, DBRs could reasonably be completed by anyone who is available to observe

student behavior—including teacher aides, paraprofessionals, administrators, social workers, or other educational professionals. Based on their observations, observers complete a single-item scale (DBR-SIS) or a multiple-item scale (DBR-MIS) rating that quantifies their observations of student behavior (Christ, Riley-Tillman, Chafouleas, & Jaffery, 2011). These ratings are interpreted as representing some dimension of a target behavior that can range in specificity from a broad behavioral domain to more narrow behavioral events. For example, a teacher might complete a DBR-SIS for a student’s “disruptive” behavior (the broad domain of interest) while also completing a DBR-MIS for “talking out,” “out of seat,” and “touching others” (the specific behavioral events that comprise disruption). As another example, a paraprofessional might complete a DBR-SIS for a student’s “social withdrawal” behavior (broad domain) while also completing a DBR-SIS for “putting head down on desk” and “avoiding eye contact” (two behavioral events that comprise social withdrawal).

Self-Report Measures

Self-report measures include both rating scale-type measures (e.g., Youth Self-Report [YSR]; Achenbach & Rescorla, 2001, which is the parallel self-report measure to the CBCL; Self-Report of Personality, which is the parallel self-report measure to the BASC); as well as measures of “personality.” The rating scale-type measures are similar to those completed by parents and teachers, and most broadband parent–teacher rating scales have parallel self-report forms. It is also common to assess internalizing constructs, such as anxiety and depression, with narrowband scales (e.g., Children’s Depression Inventory 2 [CDI 2]; Kovacs, 2010; Multidimensional Anxiety Scale for Children—Second Edition [MASC-2]; March, 2012). The most common self-report personality measure for adolescents is the Minnesota Multiphasic Personality Inventory—Adolescent—Restructured Form (MMPI-A-RF; Archer, Handel, Ben-Porath, & Tellegen, 2016). Although this instrument is used extensively in clinical practice, its use in the field of

school psychology is quite limited for several reasons, including a lack of emphasis on this measure in training programs, the focus of this tool on psychopathology, the length of time it takes for a child to complete the measure (about 90 minutes), and the relatively limited age range of children evaluated in the schools (age 14 and up). In Shapiro and Heick's (2004) study, school psychologists reported commonly using self-report rating scales but uncommonly using measures of personality assessment, such as the MMPI-A. In fact, 70% of school psychologists reported that they had not used such measures at all in their previous 10 evaluations. Likewise, in Benson and colleagues' (2019) survey, only 1.5% of school psychologists reported using the MMPI-A-RF at all in the past year. However, the self-report version of the BASC was used by 76% of school psychologists in the past year.

Self-report measures are advantageous because they allow clinicians to assess children's perceptions of their problems. Self-report measures may be particularly helpful when evaluating internalizing symptoms because these symptoms are ones that frequently cannot be observed by others. Children do need to have adequate reading skills to complete self-report measures, and for this reason most self-report measures cannot be administered to children younger than age 8. Although self-report measures are helpful in providing the child's perspective on issues, self-report ratings typically do not correlate highly with ratings from parent and teacher measures. Thus, the clinician is left to make sense of these differences and attempt to determine the "true" presence of symptoms. As with informant-based rating scales, self-report measures are more useful in assessing the severity of a child's problem compared with peers than in identifying specific behaviors of concern for the child that might be targeted in an intervention.

Functional Behavioral Assessment

In much the same way that the use of curriculum-based methods has increased for evaluating academic difficulties, FBA methods have increased

due to the utility of linking the assessment to intervention for emotional and behavioral problems. In 1997, the amendments to IDEA required the use of FBA and positive behavioral supports and interventions. Prior to this legislation, many behavior analysts considered FBA methods and positive behavioral supports to be “best practices,” but federal law did not mandate these procedures. However, according to Shapiro and Heick’s (2004) survey, one-quarter of school psychologists reported not using such methods at all in their previous 10 evaluations of children suspected of having emotional and behavioral problems. Their frequency of use may be changing, though. In Hanchon and Allen’s (2013) survey, 44% of school psychologists reported using FBA procedures in over 75% of their ED evaluations and only 7% reported never using these. While Benson and colleagues (2019) did not ask about FBA as a whole, they did ask about the use of FBA interviews and observations. Teacher FBA interviews were reported being used by 53% of school psychologists, parent FBA interviews used by 46%, and FBA observations used by 27%.

FBA procedures are a broad group of procedures that are based on the concept of identifying the function, or purpose, of a behavior. When conducting an FBA, the antecedents and consequences of the behavior are identified, with the goal being to understand the environmental conditions that maintain the behavior in question. Through a better understanding of the relationship between the behavior of the individual and the contextual factors that precipitate and reinforce the behavior, interventions can be implemented that attempt to change the behavior by addressing the function (Steege, Pratt, Wicker, Guare, & Watson, 2019). For example, if a student is disruptive in class (e.g., talks to other students, is out of seat) and consistently receives attention for this behavior (e.g., in the form of teacher reprimands) but no positive feedback for appropriate classroom behaviors, we might hypothesize that the function of the behavior is to obtain attention. Our intervention recommendations would follow from this hypothesis and include the suggestion to cease providing attention for the

disruptive behavior. Instead, this behavior should be ignored and attention should be provided to more positive behaviors (e.g., raising hand to speak).

Steege and colleagues (2019) outline four forms of FBA procedures: *indirect assessment*, *descriptive assessment*, *experimental analysis*, and *treatment analysis*. With indirect FBA, interviews, as well as rating scales and records reviews, are used to identify and describe the behavior of concern and to generate hypotheses regarding the function of the behavior. As described by Gresham, Watson, and Skinner (2001, p. 161), FBA interviews have four main purposes: (1) identify and define the behavior of concern, (2) identify antecedents of the target behavior, (3) obtain initial information on the possible function of the target behavior, and (4) identify behaviors that can be substituted for the target behavior. These purposes are accomplished by asking questions about what the behavior looks like, as well as the context and setting in which the behavior occurs. Although indirect FBA can provide valuable information, descriptive FBA, in which observations are conducted, should be used to help better identify functional relationships between the behaviors of concern and environmental factors. Observations allow the school psychologist to directly observe the behavior and to see the antecedents and consequences associated with the behavior in the context in which the behavior occurs. However, even observations do not allow one to confirm that a certain function is maintaining the behavior.

In order to confirm hypotheses regarding behavioral function, an experimental analysis would need to be conducted. This involves mini-experiments in which the behavior of concern is observed under different conditions (e.g., providing attention to the behavior, allowing escape from a task following the behavior). Although true experimental functional behavioral analysis procedures are relatively common in inpatient clinical settings in which functional methods are employed, these procedures are less common in school settings. This is because experimental functional behavioral analyses are highly controlled “experiments.” When using these procedures, one intentionally triggers the behavior while ensuring the safety

of the child, which may not be possible in the school setting. Treatment analysis (while not part of the initial FBA process) is used once an intervention is in place to determine the effectiveness of the intervention. In this procedure, single-case designs (see [Chapter 12](#)) are used to evaluate the intervention (Steege et al., 2019).

The FBA framework encompasses several functions of behavior. These include (1) obtaining attention from adults or peers, (2) gaining access to desired activities or tangibles for engaging in a certain behavior, (3) escaping or avoiding an aversive task, and (4) sensory stimulation (Steege et al., 2019). It is important to remember that attention can be both positive (e.g., getting peers to laugh at a joke) or negative (e.g., teacher reprimands) in content and still positively reinforce the behavior in question. As long as the consequence (in this case, attention) increases the likelihood that the behavior will occur again, the consequence is considered to be positively reinforcing.

The information obtained from the FBA is used to develop a behavior intervention plan (BIP) that addresses the function of the behavior. For example, as noted, if it is hypothesized that a student's disruptive behavior during class is reinforced by attention from the teacher, we would teach the student an appropriate replacement behavior (i.e., raise hand to gain attention). In addition, the teacher would provide attention when the student's hand is raised, as well as when the student exhibits other positive, on-task behaviors, while removing attention for disruptive behaviors (i.e., teacher ignores disruptive behavior and praises others for raising their hands). This would make it more likely that the student would display appropriate behavior because the student is now receiving attention (function of problem behavior) for appropriate behavior. Because FBA techniques lead directly to interventions, they have significantly more treatment utility than many other methods of assessment. FBA methods are particularly useful with behaviors that are externalized (e.g., oppositional behaviors) but are less useful with internalized behaviors (e.g., depression) that are not clearly tied to environmental contingencies.

Universal Screening for Behavioral, Social–Emotional, and Mental Health Problems

With the increased implementation of MTSS models in the schools, universal screening of social–emotional, behavioral, and mental health problems has gained more attention in research and increased in use in school settings. Universal screening techniques are used in school settings to help identify students who may benefit from increased prevention/intervention services above what is being provided as part of Tier 1 services (delivered to all students) in the schools. In addition, screening data may be used to help school personnel identify school-level programming needs and assess the effectiveness of programming at the Tier 1 level (Albers & Kettler, 2014).

Universal screening data can be obtained through multiple assessment methods. For example, within PBIS frameworks it is common to use preexisting school-collected data, such as office discipline referrals (ODRs; a rule-violation metric) or token-economy points (a general positive behavior metric), to identify students with potential problem behaviors (Kilgus & von der Embse, 2019). Another approach involves teachers rank-ordering or nominating students from their classes who they believe most warrant intervention (Walker, Severson, & Feil, 2014). As mentioned earlier, DBRs might also be used as screeners for individual students or whole classrooms. Within social–emotional or school mental health frameworks, the most common screening approach involves using brief behavior rating scales to obtain data points on all students in the school (Stiffler & Dever, 2015). Brief behavior rating scales can be completed by multiple informants, including parents, teachers, and students themselves. Typically, teacher reports are obtained at the elementary level, while student self-reports are relied upon at the secondary level. Although it is possible to use more than one informant (e.g., brief rating scales completed by both parents and teachers) or data source (e.g., teacher nominations paired with self-report rating scales), most screening protocols rely on a single instrument or metric. Although more

data might make for better risk identification, it also results in some practical pitfalls, like challenges with aggregating and linking data sources for integrated decision making or concerns with resolving disagreements among informants (e.g., differing screening results from parent, teacher, and student ratings).

When universal screening programs are used for the purpose of identifying students who need intervention, multiple-gating protocols are recommended as a best-practice approach (Walker, Small, Severson, Seeley, & Feil, 2014). In a multiple-gating protocol, the *first-gate* screener is used to obtain data from every classroom (e.g., using teacher nominations) or every student (e.g., using brief self-report rating scales) in the school. Students who screen *positive* during this initial gate are then referred for a *second-gate* screening, which is more precise and intensive than the previous screening. Results from the second-gate screening can be used to rule out false positives from the first gate, match students to targeted interventions, and prioritize students for services according to relative levels of risk. Some multiple-gating protocols, such as the Systematic Screening for Behavior Disorders (Walker, Severson, et al., 2014), even use a *third-gate* screener to further refine results from the second gate. Ultimately, it is not the number of gates that matters most—rather, it is the purpose each gate serves in improving the usefulness of screening results.

As MTSS programs for supporting students' behavioral and mental health have become more common in schools, there has been a growing demand for universal screening measures. The Behavioral and Emotional Screening System (BASC-3 BESS; Kamphaus & Reynolds, 2015), which screens for both externalizing and internalizing problems, is one such universal screening instrument that was developed from the full-length BASC (Reynolds & Kamphaus, 2015). Other social-emotional, behavioral, and mental health screening measures include the Strength and Difficulties Questionnaire (SDQ; Goodman, 2001; freely available at www.sdqinfo.com); the Student Risk Screening Scale (SRSS; Drummond, 1994; freely available at www.ci3t.org/screening#srss); the Social Skills Improvement System (SSIS)

Performance Screening Guide (Gresham & Elliott, 2008); the Social, Academic, and Emotional Behavior Risk Screener (SAEBRS; available from <https://www.illuminateed.com/products/fastbridge/social-emotional-behavior-assessment/SAEBRS/>; see Kilgus, Bonifay, von der Embse, Allen, & Eklund, 2018, for a review); and the Early Identification System (EIS; Reinke, Thompson, et al., 2018). Overall, a number of well-validated social–emotional, behavioral, and mental health screeners are available—however, they vary in efficiency, application to MTSS, and cost-effectiveness. For instance, the BESS, SSIS, and SAEBRS rely on teachers to complete an assessment using a Likert-type scale on each student in their classroom, which can take several minutes per student. The EIS uses a more efficient nomination-based method, presenting all students in the classroom to the teacher and requiring the teacher to indicate whether the student has a problem or not. Furthermore, scoring, aggregating, and interpreting universal screening data can be both costly and timely for schools. Thus, screening methods that can be completed electronically and provide comprehensive interpretive reports to schools quickly may have greater feasibility and utility, although they are likely to be more costly financially.

Diagnosis and Classification in the Schools

As with other assessment issues discussed thus far in this chapter, a lack of agreement exists in the field of school psychology on the usefulness of providing diagnostic and/or classification labels for children. By way of definition, *classification* is the term typically used in the schools when assigning special education eligibility labels (e.g., SLD, ED), whereas *diagnosis* is typically used in clinical practice when assigning labels from the *Diagnostic and Statistical Manual of Mental Disorders* (fifth edition [DSM-5]; American Psychiatric Association, 2013; e.g., ADHD, separation anxiety disorder). However, these terms are often used interchangeably, and they have in common the assignment of a label to a child.

One concern regarding the use of diagnostic and classification systems is that they may lead to “self-fulfilling prophecies.” For example, a child labeled as having an SLD may cease to try as hard and the child’s parents and teachers may cease to expect as much, leading to a decline in academic performance. Concerns have also been expressed that the process of diagnosing or classifying children artificially places them in categories that are not reliable. For example, one professional may diagnose a child with depression, whereas another might diagnose the child with an anxiety disorder. In addition, because diagnostic systems require categorical decisions to be made (i.e., either the child has the problem or does not), individuals with the same label can display different behaviors and varying levels of behavior severity, and children with “subclinical” problems (who may benefit from treatment) may not receive a classification because a certain threshold of symptoms is not met.

One of the most commonly leveled criticisms against diagnostic systems in the field of school psychology is that they are not directly linked to intervention (Kamphaus, Dowdy, Sangwon, & Chin, 2013; Whitcomb, 2018). Although we acknowledge that there are significant problems with

classification systems, we do believe that they serve a purpose. In most mental health service delivery systems, classifications are required for individuals to access and/or be reimbursed for services by insurance (Tobin & House, 2015). Within educational settings, although states can provide noncategorical services under IDEIA-2004, most states use the categories provided in the federal guidelines. This situation means that, for most students to receive special education services in schools, they *must* be assigned to a certain special education category (although it should also be noted that there may be a variety of services available to children that do not require special education classification). In the private practice sector, almost all insurance companies require a DSM-5 diagnosis for insurance reimbursement. Although these issues of access to services are practical and many would argue that we should work toward changing these system requirements, it seems unlikely that significant change will occur in the near future.

Practical issues aside, there are other, more theoretically based arguments for the use of diagnostic systems. Such systems do allow for better communication between professionals (Kamphaus et al., 2013; Whitcomb, 2018). For example, if a school psychologist is talking with the pediatrician of a child who has been diagnosed with ADHD, both can use this term and know they are referring to generally the same set of symptoms and that the symptoms are not better accounted for by another disorder (such as depression). Although there is variability in the specific behaviors exhibited by children with ADHD, the use of this term nevertheless provides some common understanding. Of course, this enhanced communication does assume that the diagnosis was correctly made. If the diagnosis was made in error, the communication ceases to be helpful and meaningful. In addition, although we acknowledge that classification systems do not directly lead to interventions, we believe they can help guide the selection of appropriate intervention techniques. As noted in earlier chapters, increasing emphasis is being placed on evidence-based practices (EBPs) and looking to research to guide practice. The participants in the studies that support these

evidence-based interventions are typically labeled in some manner, either with specific DSM-5 labels (e.g., children with separation anxiety disorder) or with general categories aligned with common diagnoses (e.g., children with anxiety).

Thus, by classifying a child, professionals can know in general what treatments might be effective for that child (see [Chapter 10](#)). The practitioner's and/or educator's job is then to implement the treatment in a manner that is compatible with the child's specific symptom presentation and the context in which these symptoms are being exhibited. This may involve conducting additional assessments to better understand the function of the child's behavior in the context in which the behavior is occurring. It is important to remember that just because most children within a certain diagnostic category respond to a certain treatment (e.g., the majority of children with anxiety respond positively to cognitive-behavioral interventions), this does not mean that all children with a certain label will respond to a certain treatment. Thus, it is still important to take into account individual differences and to continuously evaluate the effectiveness of an intervention using a data-driven problem-solving approach with the individual child (see [Chapters 3](#) and [10](#)).

Although the purpose of an assessment is not always to provide a label for the difficulties a child is experiencing, frequently in schools at least part of the purpose of an evaluation is to determine whether a child meets criteria for a certain special education category. Because of this, school psychologists are often faced with making decisions (as a member of an interdisciplinary team) about the appropriate classification for a child. Thus, regardless of a school psychologist's philosophy on the use of labels, school psychologists do need to be knowledgeable about classification systems (see Shaw & Edwards, 2019, for further discussion of the role of diagnostic systems in school psychology). However, even though assessment may lead to a determination of which, if any, diagnostic labels fit the child's symptom presentation, assessment should also, and more importantly, lead to intervention recommendations. Although it may appear that this state of

events would naturally follow (especially given our point that classifications can help lead to intervention selection), this is certainly not always the case.

For example, if a child is classified or diagnosed as having ADHD, we know from the research that behavioral interventions are likely to reduce ADHD-related behaviors in the classroom setting. However, we do not know what *specific* behaviors we should target for a specific child. Does the child engage in significant out-of-seat behavior? Does the child have difficulty following instructions? Does the child have peer relationship problems due to acting impulsively? In addition, we do not know the function of these behaviors through the diagnostic process (Kilgus & Riley-Tillman, 2019). Is the child engaging in out-of-seat behavior for attention, to escape an aversive task, or as a self-stimulatory behavior? These types of questions must also be answered as part of the assessment process so that, in addition to providing a diagnostic label for a child, we can provide parents and teachers with recommendations about what can be done to help reduce the child's problem behaviors and to increase positive behaviors. Currently, we contend that school psychologists should view the assignment of a classification or diagnosis as one part of the assessment process in many cases, while at the same time realizing that a label by itself (without intervention or targeted supports) is likely to be of minimal benefit to the child and those who interact with the child.

Assessment as a Problem-Solving Process

As RTI and MTSS procedures are being implemented more broadly, the discussion of assessment within a problem-solving paradigm has increased dramatically. Within this approach, assessment information is collected to guide decision making throughout each of the steps. We strongly believe that a problem-solving approach to school psychology is the most useful one for effectively addressing the academic, social-emotional, behavioral, and mental health problems facing today's youth. As discussed in [Chapter 3](#), when using the problem-solving model, one seeks to identify the discrepancy between a child's current academic and/or behavioral performance and the desired performance for the child. Given this model, the goal of an evaluation should not simply be to provide numerical values regarding the child's functioning and to choose a category that best fits the child. Rather, the goal of evaluation is to identify conditions that will enable a child to learn most effectively (Reinke, Sims, Cohen, & Herman, 2018; Tilly, 2008). Assessment as part of the problem-solving process is directly linked to intervention. This is in contrast to more traditional assessment activities in which assessment is not directly linked to intervention and the goal is typically to make a diagnostic or classification decision. We stress that the traditional approach to assessment is not inherently bad; rather, it serves a different purpose than the problem-solving approach. In addition, traditional assessment requires a higher degree of inference to generate intervention strategies than does assessment under the problem-solving method, which obtains a direct measure of a student's skills in the context in which they occur. Relying on higher inference data when developing an intervention plan is a problem because the greater the inference, the less confidence we can have that the intervention will be effective in remediating a student's problem (Tilly, 2008).

Final Thoughts on Assessment

We encourage school psychologists not to approach assessments with dread and not to think of assessment as a purely psychometric exercise. Let's face it: with some minimal training, almost anyone can administer the measures mentioned in this chapter. However, we must learn to look beyond the numbers and beyond traditional assessment techniques and approaches. We must learn to *think* about the child who has been referred and the context in which the child lives (including school, home, and community environments). We must remember that the goal of an evaluation is not simply to decide on an appropriate classification for a child but, more importantly, to improve the child's academic, social-emotional, behavioral, and/or mental health functioning. To do that, we must approach evaluations from a problem-solving model.

Discussion Questions and Activities

1. Compare two of the recently revised measures of intellectual ability (e.g., WISC-V, SB5, WJ-IV). What theory of intelligence are the tests based on? What was the norming process for the tests? Are the tests' psychometric properties adequate?
2. Interview school psychologists from different school districts regarding their opinions of the need for the achievement–ability discrepancy in identifying children with LD. Have their practices changed since the implementation of IDEIA 2004? If so, how?
3. Search for at least two different existing FBA interview and observation forms. Compare and contrast these and use them to create a form you can use when conducting FBAs in the schools.
4. Interview parents and teachers for their opinions about requiring children to be classified as having a certain disability to receive special education services. Would they prefer a noncategorical system? Why or why not?
5. Talk with current school psychologists about their approach to administering assessments and conducting evaluations. Are they involved in universal screening and schoolwide support planning? Do they use a problem-solving RTI/MTSS approach? If so, what makes their approach a problem-solving one? If not, how could they change their approach to more directly reflect the problem-solving approach?

Chapter 9



The School Psychologist's Role in Prevention and Intervention

Part 1. Academic Performance and Skill Development

It has been our experience that one of the reasons individuals enter the field of school psychology is to “help” others, to assist children and youth who experience learning and/or behavioral difficulties. The development of knowledge and skills in prevention and intervention services is an integral part of school psychology training programs and of great importance in developing professionals who can provide services to youth that will allow them to maximize their potential. Despite consensus regarding the importance of this aspect of school psychology service provision, practicing school psychologists continue to spend small portions of their time in this role (see [Chapter 6](#)). This lack of focus on evidence-based prevention and intervention practices is likely due to a combination of time constraints, challenges in implementing evidence-based interventions (EBIs) in school settings, and a lack of attention regarding how to transport interventions from the research setting to the school setting. In fact, this issue is not unique to the field of school psychology. For quite some time now, scholars have recognized gaps between our existing knowledge of effective

prevention and intervention practices and actual adoption of those practices in settings in which youth are served (e.g., Abbott, Walton, Tapia, & Greenwood, 1999; Burns & Ysseldyke, 2009; Carnine, 1997, 1999; Forness, 2003a; Gersten, Vaughn, Deshler, & Schiller, 1997; Williams & Beidas, 2019). Recognition of this gap has led researchers to carefully consider issues essential to the promotion of evidence-based practice (EBP) in school settings (Kratochwill, 2007), with recent emphasis in the field of school psychology, as well as psychology more broadly, being focused on the concept of implementation science (e.g., Forman et al., 2013; see also our discussion of this topic in [Chapter 11](#)).

In this chapter, we provide an overview of some of the effective prevention and intervention techniques for addressing learning problems. We cover a sampling of interventions that can be utilized across the spectrum of a multi-tiered systems of support (MTSS) model, including effective teaching (a Tier 1 intervention), as well as specific techniques to address academic challenges that youth may face (Tier 2 or 3 interventions). Knowledge of these different methods is important in guiding the problem-solving process toward strategies that are likely to be effective for improving the learning outcomes of all students.

Prevention and Intervention as Part of a Data-Driven Problem-Solving Process

When we view the entire process of schooling as an intervention that alters development (e.g., cognitive, affective, social, and physical) from its natural or unschooled course (Deno, 2002), it is easy to see how prevention and intervention services are an essential part of education. As we discussed in [Chapter 3](#), within domains of functioning important to schooling (e.g., reading), children learn and develop at different rates. Similarly, within individuals, developmental progress varies over time and across domains. We also know that individuals respond differently to various interventions. Taking these natural variations into account, it is clear that educational and mental health professionals must monitor outcomes and be responsive by adapting intervention techniques to meet the individual needs of the students they serve.

Advancements in our knowledge regarding effective instructional strategies and intervention techniques can help build our capacity for improving educational services and creating school environments that promote positive outcomes and reduce the risk of learning and mental health problems. Despite these advances, we must still acknowledge that we have a limited ability to predict a priori how our knowledge from research studies will generalize into real-world settings. In light of this limitation, we advocate the use of an *experimenting society* approach to solving problems in school settings (e.g., Campbell, 1988; Cronbach, 1975). This approach relies on the scientific method to determine the efficacy of prevention and intervention strategies within the contexts in which they are used. Thus, as we discussed in [Chapter 3](#), it is necessary to view prevention and intervention efforts as being embedded in a data-driven problem-solving process that focuses on the contexts in which problems occur.

Our current empirical knowledge base can inform and guide certain aspects of the decision-making process, but ongoing evaluation and

feedback are necessary for ensuring effective outcomes. The problem-solving process does not provide us with a crystal ball so that we can predict in an *absolute* manner how successful various prevention and intervention efforts will be for different students, but it can help to facilitate the selection of strategies with a *higher probability* of being successful. Furthermore, it incorporates measurement and evaluation methods so that we can at least answer the question, Did our prevention or intervention efforts work? We cannot assume that an intervention that has been effective for solving a particular problem in one setting, with one individual or group, will work with the same individual or group for a different problem or problem context—or even for a different individual or group within the same context. This uncertainty does not mean that group-level research is not useful in informing the decision-making process. We have neither the time nor the resources to haphazardly implement interventions on a trial-and-error basis for each new problem within each unique context. Thus, we must find a balance between our current knowledge base (i.e., existing research on empirically sound prevention and intervention practices) and information we collect about the problem and its context. From this information, we can derive working hypotheses regarding which prevention and intervention strategies are *most likely* to facilitate problem resolution. Then we need to test these hypotheses.

To illustrate the preceding points, consider the important domain of reading. Here it is easy to see how research can inform our decision-making process regarding prevention and intervention efforts. First, information from the research literature can help us determine *who to target* and *in what important domains of functioning*. Studies indicate that more than one in six children in the United States will have problems learning how to read in their first 3 years of school (National Reading Panel, 2000), and national data collected in 2019 indicated that 34% of fourth-grade students and 27% of eighth-grade students are reading below basic levels (see the Nation's Report Card: www.nationsreportcard.gov). These data are alarming when we consider the fact that reading is a pivotal and enabling skill that translates

into meaningful personal, social, and economic outcomes for individuals (Aro et al., 2019; McLaughlin, Speirs, & Shenassa, 2014; Reschly, 2010). More specifically, children who develop poor reading skills are more likely to experience learning and behavioral difficulties in school and are at risk for later-life problems (e.g., dropout, unemployment, adjudication). Alternatively, those who develop strong reading skills are more likely to experience academic success and positive outcomes in later life. Furthermore, children with special needs and those living in poverty are at an extremely high risk for developing poor reading skills (e.g., Ehm, Kerner auch Koerner, Gawrilow, Hasselhorn, & Schmiedek, 2016; Herbers et al., 2012; Kovachy, Adams, Tamaresis, & Feldman, 2015). Thus, the research literature indicates that reading is an important skill and that some children are at higher risk for developing reading problems. Early and basic reading skills are therefore key targets for prevention and intervention efforts.

Research literature can also inform the problem-solving process by indicating *when we need to intervene* (i.e., critical periods of development), and informing *how we should intervene* (i.e., what intervention strategies are likely to work for particular problems, contexts, or populations). For example, some longitudinal research indicates that when children develop early reading difficulties, these problems tend to persist. According to a seminal study by Juel (1988), students who were poor readers in first grade had an 88% probability of continuing to be poor readers in fourth grade.

The idea of a “Matthew effect,” first applied to education by Walberg and Tsai (1983) as relating to the notion of *the poor get poorer and the rich get richer*, was later proposed by Stanovich (1986) as a framework for understanding the persistence of reading difficulties. In the context of reading, the Matthew effect suggests that those with strong reading skills continue to improve over time, whereas those with weaker reading skills continue to fall behind. Over the years, there has been considerable research on this topic, with some evidence supporting the idea of a Matthew effect (e.g., McNamara, Scissons, & Gutknecht, 2011) or an increasing achievement gap between those with strong early reading skills and those

without such skills. However, other research fails to support this concept and even supports the idea of a compensatory pattern in which low achievers progress more quickly than high achievers—although they still might not ultimately catch up (e.g., Huang, Moon, & Boren, 2014). Other evidence for this phenomenon has been somewhat mixed (e.g., Morgan, Farkas, & Wu, 2011). In a review of 25 years of this research, Pfof, Hattie, Dorfler, and Artelt (2014) concluded that although their results did not reveal a simple answer, they were able to identify conditions under which a compensatory pattern seemed more likely (e.g., with high-constrained reading skills, such as letter naming) and those in which a Matthew effect seemed more likely (e.g., with composite reading scores). In a more recent study (Scammacca, Fall, Capin, Roberts, & Swanson, 2019) of almost 6,000 students across grades 1–5, while students in the lowest quartile did progress at a more rapid rate initially, even after 2 years of instruction they did not catch up to average students—and this achievement gap was more pronounced for the older students.

Although these data are mixed, in general it appears that children who are initially poor readers continue to experience difficulties over time—even if their reading trajectories do improve. This finding is consistent with findings from the mental health field indicating that youth with the most severe symptoms may improve the most over the course of treatment, but they still end treatment with higher symptom levels than those who began with less severe symptoms (e.g., Beidas et al., 2014; Lindhiem, Kolko, & Cheng, 2012). Thus, early intervention for reading appears to be important in closing this gap between students who initially struggle with reading and those who do not. Waiting too long to intervene likely means that children will remain behind their peers—even if they do make substantial progress.

From our rather brief review of the literature on the development of reading skills, it is possible to surmise how knowledge in this area would be helpful in addressing the needs of students who are referred for reading problems. Research tells us that reading is an important and pivotal skill that affects success in school and later-life outcomes. In addition, it tells us that

many students experience reading problems, and that we should intervene early. Still, this knowledge does not tell us the whole story regarding how we should address specific students' reading problems. In order to address reading concerns for an individual, we need to answer the questions in the problem-solving process as they relate to the particular situation (i.e., What is the problem? Why is it occurring? What can we do about it? Did it work?). It is our belief that effective problem solvers *integrate* knowledge of the factors that influence important developmental outcomes, knowledge of empirically supported treatments, and the information they collect about the problem and its context. Thus, school psychologists who are involved in prevention and intervention of academic problems at an individual, small-group, classroom, or schoolwide level should be cognizant of the empirical literature on academic difficulties and should employ a data-driven problem-solving approach to addressing such issues. Furthermore, these problem-solving efforts should be conducted within a multi-tiered framework, wherein resources are utilized to address a continuum of learning and social behavioral needs of all students (see [Chapter 3](#)).

Interventions for Targeting General Academic Performance

An extensive literature exists on empirically supported prevention and intervention practices (e.g., Kratochwill, 2007; Kratochwill et al., 2012; Kratochwill & Shernoff, 2004; Shernoff, Bearman, & Kratochwill, 2017). This wealth of information is both good news and bad news for school psychologists interested in facilitating the application of prevention and intervention services in school settings. The good news is that, when working with parents and teachers, we do not need to start from scratch in developing specific intervention strategies or selecting techniques that have empirical support. The bad news is that, even when we select interventions that have empirical support, we are often faced with multiple choices in interventions and we have neither the time nor the resources to take a trial-and-error approach to implementing empirically supported practices. Thus, the data-driven problem-solving model is essential to guiding the intervention selection process by linking assessment, intervention, and evaluation services. In this chapter, we highlight some prevention and intervention strategies that have been found to have empirical support in addressing important learning/academic outcomes. (In [Chapter 10](#), the companion chapter to this one, we focus on prevention and intervention strategies related to social–emotional, behavioral, and mental health outcomes.) Our discussion of academic intervention strategies in the current chapter is brief and intended to provide readers with a *sample* of the range of strategies that might be used to address important learning outcomes. Furthermore, our review is by no means comprehensive. Within the past decade, several comprehensive books (e.g., Burns et al., 2017; Good & Lavigne, 2018; Haager, Dimino, & Windmueller, 2014; Mastropieri & Scruggs, 2018; Shapiro, 2011; Shinn & Walker, 2010) have been devoted to the discussion of effective teaching methods as well as academic prevention

and intervention strategies, and we certainly encourage readers to explore this literature further following this introductory chapter on the topic.

Within an MTSS framework to promote optimal academic learning, Tier 1 interventions target classwide techniques that support and promote effective teaching. For students who struggle academically despite being in classrooms with effective teachers who are able to actively support student engagement, more intensive interventions may be warranted. In describing best practices in implementing academic interventions for students who are struggling, Burns, VanDerHeyden, and Zaslofsky (2014) identify five components that should be present in all interventions:

- Explicit instruction
- Appropriate level of challenge
- Frequent student response opportunities
- Targeting of skills based on instructional hierarchy
- Consistent feedback to student

Regardless of the academic area targeted and the grade level of the student, interventions should include these five components, which allow for individualization to students' academic concerns and developmental level.

We caution readers to keep in mind that when selecting interventions, one should consider practices with demonstrated (1) effectiveness, (2) relevance to the current problem and its context, and (3) efficiency. One should also keep in mind the following limitations to EBPs: (1) research findings may not generalize to the problem situation that you are working with; (2) when empirical findings indicate that the intervention was effective for a group of students, individual differences in response to the intervention are also likely to be noted; (3) intervention strategies found to be *efficacious* (i.e., to produce desired outcomes in controlled research) may not be *effective* (i.e., efficient, practical, acceptable, feasible in practice contexts); and (4) we cannot know whether a prevention or intervention

strategy works with the problem we are addressing until we evaluate it. Given these points, it is worth reiterating that an important part of both effective instruction and effective intervention (and as discussed throughout this book, a component that is a key part of the problem-solving process) is the collection of ongoing data regarding student progress (Brown-Chidsey & Bickford, 2016). For academic concerns, data are typically collected through curriculum-based evaluation procedures and used for regular monitoring at all tiers to determine whether students are making gains as expected (see [Chapter 8](#) for more details regarding curriculum-based assessment).

Effective Instruction: The Role of the Teacher

Within the context of MTSS at the Tier 1 level, it is important to ensure that all students have access to an effective instructional environment in which teachers are using evidence-based teaching methods within a classroom and a school climate that positively supports learning. Over the past few decades, researchers in education and psychology have examined how effective teachers structure their classrooms and utilize strategies to create instructional environments conducive to learning, resulting in many books, reports, and articles describing aspects of effective teaching practices (e.g., Brown-Chidsey & Bickford, 2016; Coalition for Psychology in Schools and Education, 2015; Good & Lavigne, 2018). In this section, we provide an overview of some teaching techniques and classroom practices that are considered effective Tier 1 interventions.

Structuring the Classroom

How teachers structure their classroom, including their use of classroom management principles, can impact student learning. It is interesting to note that effective teachers generally use the same kinds of consequences for misbehavior as ineffective teachers. However, they tend to differ from ineffective teachers in the manner in which they manage problem situations

before they arise (Kounin, 1970). Effective teachers prevent problems by establishing classroom environments in which students are engaged in functional, interesting, worthwhile materials and activities, so that participation in classroom activities is meaningful, a focus is placed on group aspects of classroom management, and there are fewer incentives to misbehave (Bear & Manning, 2014; Coalition for Psychology in Schools and Education, 2015; Gettinger & Miller, 2014). Interestingly, while effective classroom structure can lead to better learning, interventions targeting academic concerns can also have an impact on classroom behavior. For example, researchers have found moderate improvement in academic engagement and small decreases in disruptive behaviors following interventions targeting academics (Warmbold-Brann, Burns, Preast, Taylor, & Aguilar, 2017).

One way to facilitate task engagement is to create learning environments that encourage active participation and discourage disruptive and off-task behavior. When teachers are proactive and devote more time to structuring the learning environment, students are more engaged in tasks. Similarly, when teachers spend less time structuring their classrooms to promote academic success, students are less likely to be engaged in tasks and more likely to be disruptive. When students are more disruptive, teachers end up allocating more time to intervening with misbehavior than to instruction, and student task engagement rates drop. Furthermore, it is more difficult for teachers to regain instructional control after losing it than it is for them to establish and maintain it proactively early in the year. Thus, structuring the classroom environment to promote engagement and academic success should be viewed as a prevention strategy that involves several interrelated components that are best established at the beginning of the year. Detailed descriptions of how to enhance structure in classroom environments are available in the literature (e.g., Burns et al., 2017; DuPaul, Stoner, & O'Reilly, 2014; Gettinger & Miller, 2014; Hulac & Briesch, 2017; Mastropieri & Scruggs, 2018).

Structuring Learning Tasks

In addition to structuring the classroom environment to best support learning, teachers must also organize and structure the content of what is to be taught in a given area to best facilitate student learning. One way to organize content is to think in terms of the “big ideas” in a particular domain of functioning (Mitchell, Keast, Panizzon, & Mitchell, 2016). Big ideas are critical knowledge areas and principles that are most relevant and essential for learning a new academic skill (Carnine, 1994; Coyne, Kame'enui, & Simmons, 2001). Focusing on the big ideas allows teachers to focus on the most important foundational areas for student learning.

When structuring content and learning tasks, understanding what the student or learner brings to the instructional context is an important aspect of the learning. For example, as Howell and Nolet (2000) note, one important alterable variable that a student brings to the learning context is *prior knowledge* (i.e., skills, strategies, perceptions, expectations, and beliefs). When a student does not have adequate prior knowledge or skill in a particular area, tasks become difficult and students may need additional support. Tasks that have missing information or ambiguous cues or that lack predictability are considered difficult. Of course, whether or not a task is difficult varies for individuals with different prior knowledge bases and skills (e.g., novices vs. experts). Thus, task difficulty has more to do with the interaction of the task and the learner's prior knowledge than with the task itself. Unfortunately, “many people attribute difficulty in school to deficits in a student's fixed capacity to learn—not missing prior knowledge” (Howell & Nolet, 2000, p. 21).

In considering prior knowledge, it can be important to consider where a student falls with respect to *skill development* on the learning hierarchy (Haring, Lovitt, Eaton, & Hansen, 1978). Daly, Lentz, and Boyer (1996) describe the learning hierarchy in the following way:

As the learner is gaining a new skill, he or she will first *acquire* it. The learner then becomes *fluent* in skill use. Next, he or she learns to *generalize* its use to novel contexts. Finally, he or

she *adapts* its use to modify the response as necessary according to novel demands. (p. 370, original emphasis)

Authors have also referred to this as a skill-by-treatment interaction in which prior skill/knowledge in an area differentially predicts which instructional/intervention methods may be most effective for a given student (e.g., Burns, Davidson, Zaslofsky, Parker, & Maki, 2018). Different instructional techniques are useful in helping students progress through each stage of the learning hierarchy (Daly et al., 1996; Haring et al., 1978; Howell & Nolet, 2000; Mastropieri & Scruggs, 2018). For example, students who are just acquiring new skills (e.g., beginning reading skills) and who are developing accuracy are in need of modeling, demonstration, prompting, cueing, and corrective feedback. In contrast, students who have mastered a certain level of accuracy with a skill must practice that skill to achieve proficiency and fluency. Thus, strategies that emphasize accuracy as students are learning skills and then fluency once students have reached a certain skill level are likely to be most effective (e.g., Burns, Coddington, Boice, & Lukito, 2010; Burns & Parker, 2014). When students are accurate and fluent in a particular skill within the learning context in which it was taught, instruction can move toward the development of generalization. This can be accomplished by modeling the skill across contexts, drilling the skill across contexts, and reinforcing skill use across contexts.

Academic Skill Development: Strategies Designed to Improve Academic Engagement, Motivation, Self-Regulation, and Problem Solving

While some academic interventions target the development of specific academic skills (e.g., reading, math, written language), many interventions target broad skills that are important to the development of academic competencies more globally. To learn effectively in any academic domain, students need to have sufficient task-related knowledge (i.e., skills required

to learn). Task-related knowledge includes such things as attention, motivation, self-efficacy, and problem-solving skills. Students who are effective learners, for example, are able to analyze task demands and, from this information, select strategies for task completion. They are good at *solving problems* (Carnine, 1989; Howell & Nolet, 2000; Pressley, 1996), and they are able to *self-regulate* and *self-monitor* their behavior and their learning with respect to awareness of their skills and the requirements of the task or situation at hand. Studies have indicated that self-regulation of behavior early on in schooling is related to later academic competence (Backer-Groøndahl, Naerde, & Idsoe, 2019; Moffett & Morrison, 2020). Thus, for students who lack some of these prerequisite learning behaviors, these will likely need to be addressed in the context of any academic interventions provided. Techniques to increase students' use of self-regulated strategies include explicit teaching of study strategies, self-monitoring, self-management, and goal setting (Gettinger & Miller, 2014). Appropriate attention to and intervention with these variables are equally as important as identifying and addressing specific academic skill deficits. Thus, emphasis should be placed on identifying these deficit areas with the intent to match them with instructional supports designed to improve such difficulties. Development of these broad skills are discussed in more detail below.

In 1963, Carroll proposed that learning was a function of time engaged in learning relative to time needed to learn. Since then, an extensive line of research has shown that there is a direct relationship between the amount of time students are engaged in a task (i.e., paying attention, working on tasks, participating in discussion) and their academic performance (Gettlinger & Miller, 2014; Lei, Cui, & Zhou, 2018). Thus, prevention and intervention strategies designed to increase engagement in the learning environment by addressing issues that may hinder such access (e.g., selective attention to task, motivation, self-regulation, and problem-solving skills) can be viewed as a first step in ensuring that students have the opportunity to benefit from the learning environment. Improving attention to task and task engagement

involves consideration of the student's skills (e.g., selective attention, motivation, self-regulation, problem solving), as well as curriculum and instructional variables. Next, we highlight a few strategies that address this issue (for additional information, see Gettinger & Miller, 2014; Good & Lavigne, 2018; Mastropieri & Scruggs, 2018).

Contingency Management Interventions

Early on, investigations indicated that providing incentives and contingent feedback resulted in improvements in students' attention to task (e.g., Ferritor, Buckholt, Hamblin, & Smith, 1972; Hall, Lund, & Jackson, 1968). Hall and colleagues (1968), for example, found that contingent praise was an effective means of increasing study behavior. Ferritor and colleagues (1972) examined the effects of contingent reinforcement on attending behavior and on work completion. Results indicated that contingent reinforcement for completing work affected levels of attention to task, but contingent reinforcement of attending behavior did not consistently affect work completion. Thus, when using contingency-based interventions, it is sometimes necessary to target more specific outcomes of task engagement, such as work productivity (e.g., number of items completed within a time frame) or accuracy (e.g., percent correct). Reinforcement contingencies can be applied to individual students or to groups of students (see Bear & Manning, 2014, for a review).

One of the more commonly used group contingency management strategies in school settings is the Good Behavior Game (initially developed by Barrish, Saunders, & Wolf, 1969), in which students are divided into different groups or teams and then receive marks for rule infractions. If the groups earn below a certain number of points, then the group is able to access a predetermined reinforcer (e.g., extra recess time or free time). Over time, there have been variations in how the Good Behavior Game is played, but research consistently indicates positive outcomes in classrooms where this game is implemented (e.g., Bowman-Perrot, Burke, Zaini, Zhang, &

Vannest, 2016; Flower, McKenna, Bunuan, Muething, & Vega, 2014; Tingstrom, Sterling-Turner, & Wilczynski, 2006).

Self-Regulated Learning and Self-Management

Even when teachers consistently employ strategies designed to maximize student engagement, some students will spend less time than needed on a task as a result of other factors (e.g., low motivation, poor self-monitoring, ineffective problem solving, lacking self-regulation skills; Gettinger & Miller, 2014). Self-regulated learning theorists have focused on improving student learning in terms of metacognitions about learning, motivation to learn, and behavior in the learning environment. As described by Zimmerman (1986):

Metacognitively, self-regulated learners are persons who plan, organize, self-instruct, self-monitor, and self-evaluate at various stages during the learning process. Motivationally, self-regulated learners perceive themselves as competent, self-efficacious, and autonomous. Behaviorally, self-regulated learners select, structure, and create environments that optimize learning. (p. 308)

This quote highlights how self-regulated learning might be best understood as an umbrella approach to improving learning, as it embraces a number of theories and models focusing on the cognitive, metacognitive, behavioral, motivational, and emotional processes involved in learning experiences (see Panadero, 2017, for a review of key theories and models). Self-regulated learning figures prominently in the field of educational psychology and it is just as relevant to the aims of school psychology. In our field, interventions derived from self-regulated learning theories often look similar to—and can sometimes be identical with—interventions derived from behavior-analytic or cognitive-behavioral approaches to treatment. Practically speaking, interventions based on self-regulated learning theories comprise a variety of evidence-based strategies, including problem analysis, problem solving, planning, goal setting, and self-monitoring. Self-regulated learning strategies have improved outcomes for youth experiencing a variety of learning challenges, including LD, ADHD, and disruptive classroom

behavior, as well as anxiety and depression (see Cleary, 2015, for an overview of relevant work in each of these target areas). Within school psychology, we often combine a few of these effective self-regulation strategies into a general class of interventions called *self-management*.

For students who struggle with self-regulation when learning academic material, self-management interventions may be beneficial in increasing their attention to the task and engagement with the task. *Self-management* is another umbrella term used for interventions that include a self-monitoring component, as well as other components, such as self-evaluation and self-reinforcement. At a basic level, self-monitoring involves observing one's own behavior and recording it (Shapiro & Cole, 1994). In a recent review of self-management interventions, basic self-monitoring (with no other components) was the most common form of self-management intervention used (Briesch, Daniels, & Beneville, 2019). Self-monitoring with some type of adult feedback was also commonly used—but there was much variability in the manner in which feedback was provided. In summarizing the findings across studies, Briesch and colleagues (2019) note that average effect sizes were large across the different types of self-management interventions used, as well as the problems targeted with these interventions (e.g., disruptive behavior, on-task behavior, or academic engagement). However, they caution that across individual studies there was some inconsistency in outcomes, and they stressed the need to make sure users of self-management programs are looking at components that match best with the student population (e.g., in terms of age or disability status). As we have noted throughout this book, the need for continued monitoring of interventions is also important, to ensure the intervention is having the intended impact as it is being delivered in real-world settings.

Interventions for Targeting Specific Academic Skills

While interventions such as those described above can be used to target a variety of general academic challenges, there is often a need to target specific academic areas of concern. The literature on interventions for specific academic skills is extensive. The purpose of the following sections is not to overview all academic interventions but rather to provide readers with a brief overview of the outcome literature, as well as examples of a few specific EBIs in the core academic domains of reading, math, and written language. Readers are encouraged to refer to other resources for greater depth and breadth of coverage regarding academic interventions. Some evidence-based books on these topics include *Effective School Interventions: Evidence-Based Strategies for Improving Student Outcomes* (Burns et al., 2017), *Effective Math Interventions: A Guide to Improving Whole-Number Knowledge* (Coddling, Volpe, & Poncy, 2016), *Interventions for Reading Problems: Designing and Evaluating Effective Strategies* (Daly, Neugebauer, Chafouleas, & Skinner, 2015), *Best Practices in Writing Instruction* (Graham, MacArthur, & Fitzgerald, 2018), and *Intensive Reading Interventions for the Elementary Grades* (Wanzek, Al Otaiba, & McMaster, 2019).

There are also several website-based resources, including the Evidence Based Intervention Network through the University of Missouri (<http://ebi.missouri.edu>); What Works Clearinghouse (<https://ies.ed.gov/ncee/wwc>), maintained by the Institute for Educational Sciences; National Center on Intensive Intervention (<https://intensiveintervention.org>); the IRIS Center at Peabody College in Vanderbilt University (<https://iris.peabody.vanderbilt.edu>); the National Center on Improving Literacy (<https://improvingliteracy.org>); Lead for Literacy (<https://leadforliteracy.org>); the Florida Center for Reading Research

(www.fcrr.org/resource-database); and the Meadows Center for Preventing Educational Risk (www.meadowscenter.org).

Reading Interventions

Given the importance of early reading skills, there has been much work done in evaluating which foundational skills in beginning reading are linked to the development of reading competence (National Reading Panel, 2000; National Research Council, 1998). In their seminal and comprehensive report, the National Reading Panel identified and studied five “big ideas” in reading instruction that continue to be emphasized and cited today:

- Phonemic awareness
- Phonics
- Fluency
- Vocabulary
- Text comprehension

In a recent report from the Institute of Education Sciences (Foorman et al., 2016) that reviewed research published after the National Reading Panel (2000) report, recommendations for teaching foundational reading skills included:

- Teach students academic language skills, including the use of inferential and narrative language and vocabulary knowledge.
- Develop awareness of the segments of sounds in speech and how they link to letters.
- Teach students to decode words, analyze parts, and write and recognize words.
- Ensure each student reads connected text every day to support reading accuracy, fluency, and comprehension. (p. 2)

Of these recommendations, the two with the strongest support in the research are those that involve phonemic awareness and phonics. This emphasis on phonemic awareness and phonics is consistent with findings from research reviews that suggest some of these same skills are the ones that are most predictive of later skills, as well as students' responsiveness to reading interventions. A comprehensive report by the National Early Literacy Panel (2008) identified six early literacy variables that were associated with later-literacy skills, even when accounting other factors, such as socioeconomic status (SES):

- Alphabet knowledge
- Phonological awareness
- Rapid naming of letters or digits
- Rapid naming of objects or colors
- Writing letters or writing name
- Phonological memory (p. vii)

An additional five variables reflecting knowledge and concepts of print, reading readiness, oral language, and visual processing were moderately predictive of later outcomes. In addition, in a recent review, the strongest predictive factors of response to early intervention in reading were word identification, alphabetic principle, fluency, and phonemic awareness (Lam & McMaster, 2014). These reviews indicate where efforts should be focused as reading is initially taught to youth and as interventions are developed to address challenges faced by youth who struggle to read at grade level. A wide variety of specific reading interventions and programs have been developed that target these essential reading skills.

Recent meta-analyses on reading interventions have generally found support for interventions in the classroom. For example, Wanzek and colleagues (2016) have conducted several meta-analyses on reading interventions. In their evaluation of Tier 2 reading interventions for youth in grades K–3, they found an overall moderate, positive effect for interventions

targeting foundational reading skills, such as phonemic awareness, phonics, word recognition, and fluency. Studies that evaluated language and comprehension also had positive effects; although, when evaluated via standardized measures, the effects were smaller than seen for the foundational reading skills. The researchers noted no differences in outcomes for programs that only addressed foundational skills versus those addressing foundational plus language/comprehension skills. There were also no differences in outcomes based on group size, grade level, implementer, or total hours of intervention.

In an earlier evaluation of what would be considered Tier 3 reading interventions (defined by the authors as 100 sessions or longer), Wanzek and Vaughn (2007) also found positive outcomes for youth in grades K–3. Overall, there was a greater positive effect when students were earlier in their schooling (grades K–1) and intervention was provided in the smallest group sizes. The authors also noted that the studies with the strongest effects for interventions included phonics instruction and text reading. In an update to this study (Wanzek et al., 2018), with almost all included studies focusing on grades K–1, there were similar findings, with an overall positive effect on reading outcomes. While there was some evidence in this update study to suggest one-on-one instruction may be more beneficial than small-group instruction, the authors note that there were not enough small-group studies to draw firm conclusions about this finding. In an extension to the earlier study on younger grades (Wanzek et al., 2013), reading interventions of at least 75 sessions for students in grades 4–12 were evaluated. Average effect sizes in this extension study were small but still indicated positive effects for interventions, with no differences in reading outcomes based on group size, grade level, or total intervention hours. Likewise, Scammacca, Roberts, Vaughn, and Stuebing (2015) reported a small but positive effect for reading intervention studies (with any magnitude of intervention) published between 2005 and 2011, focusing on students in grades 4–12. An especially noteworthy finding from this meta-analysis was that

comprehension interventions had larger effect sizes than other types of reading interventions.

Examples of Specific Reading Interventions

One strategy for improving reading fluency is the use of repeated readings, wherein students are asked to read and reread (usually several times) short passages that contain generally recognizable words until a certain criterion is reached (see Chard, Vaughn, & Tyler, 2002; Mastropieri, Leinart, & Scruggs, 1999). This strategy is useful when students have achieved a certain level of accuracy with regard to reading and when the goal of instruction is to improve fluency. A recent meta-analysis (Lee & Yoon, 2017) that evaluated the use of repeated reading to address fluency in students with reading disabilities found a large effect for the use of this strategy, with more positive effects seen at the elementary level compared with the secondary level. In addition, effects of repeated reading were greater when a listening passage preview was incorporated into the intervention.

In contrast, other reading interventions, such as self-questioning or story mapping, are designed to improve comprehension (i.e., recall of information or understanding of text), and they involve explicit instruction in strategies and/or rules that are useful for facilitating comprehension (Swanson & De La Paz, 1998; Vaughn & Edmonds, 2006). Story-mapping interventions involve providing students with prompts that lead them to think about different aspects of a passage they have read. Prompting questions may include (but are not limited to): Who is the main character in the story? Where did the story take place? Was there a problem identified in the story and, if so, what was it and how was it resolved? (see Burns et al., 2017). Students respond in writing to these prompts, hopefully increasing their comprehension of the story. In a review of story-mapping interventions for secondary students with LD, it was noted that story mapping was generally effective for improving students' comprehension of story elements (Boon, Paal, Hintz, & Cornelius-Freyre, 2015).

Math Interventions

While reading has received more attention in the research than other academic skills, due to the foundational importance of this skill and its tie into all other academic skills, math skills are also an important focus of education and intervention. In the What Works Clearinghouse Educator's Practice Guide for *Teaching Math to Young Children* (Frye et al., 2013), five specific recommendations are outlined based on research in math education:

1. Teach number operations using a developmental progression.
2. Teach geometry, patterns, measurement, and data analysis using a developmental progression.
3. Use progress monitoring to ensure math instruction builds on what each child knows.
4. Teach children to view and describe words mathematically.
5. Dedicate time each day to teaching math and integrate math instruction throughout the school day.

In a recent meta-analysis of math interventions for students with math difficulties in grades K–3 (Dennis et al., 2016), the overall results indicated a positive and moderate effect size. In evaluating different instructional approaches, the researchers found the largest effect sizes for interventions that involved peer-assisted learning and teacher-led instruction. Interestingly, interventions that made use of technology had the lowest effect size. Another meta-analysis evaluating math interventions in grades 4–12 (Stevens, Rodgers, & Powell, 2018) found an overall moderate positive effect, with more positive effects noted for interventions that had more than 15 hours of intervention time. In another meta-analysis focusing specifically on early intervention (in preschool to first grade) for numeracy (Nelson & McMaster, 2019), a moderate positive effect was also noted, with the strongest effects seen in preschool children. However, the authors note this

grade-level difference may be due to other math instruction not taking place in the preschool years. While this review indicated that peer-assisted learning strategies did not produce positive effects, providing instruction in one-on-one settings, as well as small groups and flexible grouping, all showed positive effects. In terms of specific early numeracy domains, counting with one-to-one correspondence was the only skill that predicted treatment outcome.

In an earlier meta-analysis, which provided a more in-depth assessment of different instructional components of math interventions (Gersten et al., 2009), two components were noted to have stronger effects than other components: teaching heuristics to solve problems and explicit instruction. Use of cross-age peer tutors was close to significant. The majority of other components evaluated had positive effects overall (with the exception of peer-assisted learning in the classroom and student goal setting, which had no significant effect) but were not differentially effective from one another. These other effective components included use of student verbalization, teacher feedback, sequencing/range of examples, and visuals.

Examples of Specific Math Interventions

As noted above, explicit instruction is one evidence-based strategy for improving math performance in youth. In their comprehensive review, the National Mathematics Advisory Panel (2008) concluded that explicit instruction in math concepts was effective in helping students with and without learning disabilities who were low achieving in math. As described in this report and other sources (e.g., Clarke, Doabler, & Nelson, 2014), explicit instruction typically involves the following components: explanation and demonstration of math strategies by the teacher, sequencing of the math content and provision of examples, allowing multiple opportunities for students to practice and to ask/answer questions, allowing students to think aloud while solving problems, and providing students with feedback as they are solving math problems.

In addition to using explicit instruction as part of a comprehensive math curriculum, a variety of interventions have been proposed and evaluated to help address different aspects of math (e.g., basic math concepts, fluency in math operations, solving of math word problems; see Burns et al., 2017, for a comprehensive overview of strategies). One specific intervention that has been in use for some time is the cover–copy–compare procedure, which has been shown to be successful in addressing accuracy and fluency with math facts (Joseph et al., 2012). In this intervention, students view a solved math problem and then cover and copy that problem on their own, including the answer; they then compare their copy to the problem provided (e.g., see <http://ebi.missouri.edu/?p=93> for procedures). Students work through one problem at a time in this manner, until they have completed a worksheet of problems (generally around 10 problems). Peer tutoring is another specific intervention that can be used to address math difficulties, including skills related to the use of basic math operations. There are a variety of peer tutoring programs that can be utilized and, in general, the research provides support for the effectiveness of these programs (e.g., Alegre, Moliner, Maroto, & Lorenzo-Valentin, 2019; Leung, 2015).

Written Language Interventions

While writing or written language typically receives much less attention in the literature compared to reading, and somewhat less compared to math, writing is an important skill with which many students struggle. In fact, the National Commission on Writing (2003) made the case in a report that writing has been neglected as school reform efforts have focused more on specific areas of the curriculum rather than ideas, including the ability to “think, reason, and communicate” (p. 9). In a more recent review of writing instruction, Graham (2019) noted that there was insufficient writing instruction in schools, with teachers typically not spending enough time on writing, students not writing frequently enough, teachers not using adequate writing instructional skills, and teachers not using enough variability in how

and for whom students write. Thus, interventions to address writing are important to consider. In a recent meta-analysis of writing instruction in the elementary grades (Graham, McKeown, Kiuahara, & Harris, 2012), there was support for a variety of writing interventions, with explicit teaching and strategy instruction having a number of studies to support their use. Furthermore, this meta-analysis indicated that scaffolding of students' writing, including techniques such as prewriting activities, peer assistance, goal setting, and assessment (with feedback), also had positive effects across a number of studies. While information on writing *interventions* is limited, for an in-depth discussion of specific writing instruction, readers are encouraged to refer to *Best Practices in Writing Instruction* (Graham et al., 2018).

Conclusion

We believe that school psychologists who have strong foundational knowledge in learning and development, the effective teaching literature, and an MTSS framework for data-driven problem solving are in a strong position to facilitate the provision of prevention and intervention services for promoting students' general academic performance and specific skill development. As with any learning process, beginning school psychologists should start by acquiring basic foundational knowledge and competencies in the data-driven problem-solving process. They should first master the “big ideas” within the empirical literature related to academic performance and skill development, and then build fluency applying these big ideas within the problem-solving process. Only after acquiring and gaining fluency with these foundational competencies should school psychologists then attempt to expand their knowledge of the vast prevention and intervention literature on these topics. In this chapter, we highlighted some of the big ideas relevant to prevention and intervention issues in school psychology, with a focus on academic or learning concerns. The [next chapter](#) expands on the foundations of the current chapter, with a particular focus on prevention and intervention issues relevant to social–emotional, behavioral, and mental health concerns.

Discussion Questions and Activities

1. Visit a classroom and observe instruction for at least one class period. Write a summary of the observation with a focus on the learning environment (including student and teacher variables) and what you think contributed to an effective/ineffective learning setting.
2. Search the empirical literature on a specific academic intervention topic (e.g., reading fluency, comprehension, reading acquisition, strategy instruction, number sense in mathematics, group contingencies). Review the articles and write a brief (i.e., three- to five-page) summary of the intervention strategy. Include a description of the strategy (e.g., its purpose, target group or skill deficit, procedures, and special considerations) and a summary of the relevant research, with a list of references.
3. Obtain a copy of an elementary school reading curriculum. The learning hierarchy would suggest that the curriculum should be sequenced such that concepts and skills build upon earlier concepts and skills in a sequential fashion. Examine the curricular materials and identify aspects of the curriculum that seem to target acquisition of skills and fluency building.
4. Talk with a kindergarten or first-grade teacher, as well as an upper-elementary school teacher (fifth or sixth grade), about their approach to math instruction. How do they differ and how are they the same? Can you pick out “big ideas” in terms of how/what they teach?

Chapter 10



The School Psychologist's Role in Prevention and Intervention

Part 2. Social–Emotional, Behavioral, and Mental Health

In [Chapter 9](#), we focused our attention on the role of school psychologists in prevention of and intervention with *academic* performance problems and skill deficits. We now turn our attention to the school psychologist's role in addressing students' *social–emotional, behavioral, and mental health* needs. Within this chapter, we use each of the aforementioned terms more or less synonymously. In short, these three terms are used to refer to the broad domain of human functioning that represent the quality of students' thinking, feeling, and behaving *outside* of academic or cognitive performance/skills. Whether we use the term *social–emotional health, behavioral health, or mental health*, then, we are referring to this broader class of student functioning represented by all three terms. This means we are casting a big net with the ground we cover in this chapter. So, we recognize at the outset that such a broad topic can be viewed from many theoretical and practical lenses. For our purposes in this chapter, however, we take up the topic primarily from the standpoint of prevention science, which considers mental health *problems* as the primary phenomena of

interest (Herman et al., 2019). We take this view to stay consistent with the problem-solving and multi-tiered approaches advocated throughout this book, which we believe are just as applicable to supporting behavioral and mental health as they are to all other aspects of school psychology service delivery (see [Chapters 3, 9, and 11](#)).

Before diving into the topic from our particular viewpoint, we briefly acknowledge several of the other interesting and potentially useful approaches to social–emotional, behavioral, and mental health work with youth and in schools. Indeed, over the past decade, school psychology has been making room for alternative and more integrative takes on these issues, which are now fairly well represented in the scholarly literature. To give readers a taste of what types of constructs and variables might be considered as falling under the broader rubric of social–emotional health from other perspectives, we offer a sampling of key terms and phrases that are commonly used in other ways of talking about this topic:

- Soft-skills or noncognitive factors (e.g., Egalite, Mills, & Greene, 2016)
- Positive psychological traits (e.g., Furlong, Gilman, & Huebner, 2014)
- Developmental assets (e.g., Scales, Benson, Roehlkepartain, Sesma, & van Dulmen, 2006)
- Happiness and subjective well-being (e.g., Suldo, 2016)
- Resilience (e.g., Noltemeyer & Bush, 2013)
- Dual-factor or complete mental health (e.g., Suldo & Shaffer, 2008)
- Student engagement (e.g., Fredricks, Reschly, & Christenson, 2019)
- Mindfulness and psychological flexibility (e.g., Renshaw & Cook, 2017)
- Academic enablers (e.g., DiPerna, 2006)
- Strength-based approaches (e.g., Jimerson, Sharkey, Nyborg, & Furlong, 2004)
- Covitality (e.g., Renshaw et al., 2014)

We encourage interested readers to look into the concepts, theories, and related empirical literature referenced above. But for the purposes of this chapter, we simply summarize the gist of these alternative views by noting that their defining feature is an attempt to counterbalance the traditional focus on social–emotional and behavioral *ill-being* with an intentional focus on *well-being*. Instead of just focusing on fixing what is wrong, undesirable, or unhealthy, these alternative views emphasize cultivating what is right, desirable, or healthy (Renshaw, Long, & Cook, 2015). Overall, we believe this more balanced view of mental health is good for our field and holds much promise for the future, as it expands the horizons of school psychology. We also think that well-being deficits—similar to academic competency or skill deficits—can be considered as a kind of problem that warrants solving, which means these alternative views of mental health should be fully compatible with the problem-solving approach we advocate in this book.

Yet the fact remains that these alternative perspectives on social–emotional health are still relatively new in school psychology, and so the concepts, theories, and empirical literature that support them have yet to achieve the status of consensus views in our field. We think one of the major reasons that school psychology has yet to officially embrace many of these alternative views is that the boundaries between these perspectives are often murky and ambiguous. The *jingle–jangle fallacies* (Reeves & Venator, 2014) are a useful set of terms for helping us describe this situation. The jingle fallacy refers to confusion that results from using a single term to represent many or multiple constructs. As Reeves and Venator (2014) point out, “when a term is being used to cover so much ground, it gets in the way of understanding” (para. 3). Examples of the jingle fallacy might be the concepts of *soft skills* or *noncognitive factors* (Egalite et al., 2016), which have literally been used to refer to everything but academic and cognitive skills, and therefore offer very little precision for informing research or practice. The jangle fallacy, on the other hand, refers to confusion that results from using different terms to describe the same or similar constructs. The

problem here is the unnecessary proliferation of terms, and disagreement about which terms are more useful than others, which leads to a lack of coordination for progressing research and practice. Examples of the jangle fallacy might be the theories of academic enablers (DiPerna, 2006) and student engagement (Fredricks et al., 2019), which are both distinct ways of describing what are, at bottom, very similar social, emotional, and behavioral factors that contribute to students' success in the classroom. With two comparable frameworks, it is difficult to know what might be gained or lost (if anything) by preferring to work within one framework as opposed to the other.

For the remainder of this chapter, we try to avoid jingle–jangle fallacies by sticking with the terms that are well established as the consensus foundations for informing school psychologists' role in prevention and intervention related to social–emotional, behavioral, and mental health concerns (cf. NASP, 2020b). Most of these foundational concepts are drawn from ways of talking about youth mental health that are rooted within the traditions of psychiatry, child clinical psychology, and applied behavior analysis. Specifically, we talk about common types of social–emotional and mental health problems using terms drawn from DSM-5 (American Psychiatric Association, 2013), the empirical approach to analyzing behavioral dimensions (e.g., Achenbach, 2017), and the topographical and functional descriptions of problem behavior from applied behavior analysis (e.g., Cooper, Heron, & Heward, 2020). We recognize that these three frameworks are all incomplete and imperfect, yet we believe that, taken together, the terms from these traditions provide useful ways of talking about the role of school psychology within the youth mental health landscape.

In the following sections, we begin by sketching what we know about the landscape of youth mental health, starting with prevalence rates of mental health problems and then transitioning into service access and usage rates. Related to this latter point, we draw out the unique role of schools as mental health service settings and, specifically, of school psychologists as mental

health providers. We then move to a discussion of key features of a problem-solving approach to social–emotional, behavioral, and mental health supports in schools, underscoring the importance of leveled or tiered supports that have been tuned according to the scope of the students receiving services and the intensity of the services provided per pupil (see [Chapter 3](#)). Along the way, we emphasize the importance of evidence-based interventions (EBIs) for targeting youth mental health concerns generally, as well as in schools specifically. We describe some of the defining features of the EBI movement in more detail here than in other chapters in this book (e.g., see [Chapters 1, 3, and 11](#)) and also outline descriptions of a select group of core EBIs that we believe have proven especially useful for multi-tiered mental health work in schools. Finally, we conclude the chapter by raising critical issues and next steps that might be taken to help further improve the capacity of school psychologists to provide efficient, effective, and equitable mental health services in schools.

Landscape of Youth Mental Health

As we noted in the previous editions of this book, the social–emotional and mental health challenges that faced our children and youth were growing in number, diversity, severity, complexity, and scope as we entered the 21st century—and continued to grow during the first decade of the new century. At that time, demands on schools to meet the mental health and social–emotional needs of students were also growing, yet the provision of prevention and intervention services for youth with mental health issues was underutilized (Strein et al., 2003) and fragmented (Hoagwood & Johnson, 2003). More specifically, data at the turn of the century indicated that about one in five youth were experiencing a significant mental health problem, and that within this high-needs group only approximately 20% were receiving the specialty mental health services they needed. Furthermore, data suggested that, when youth did get help, about 70–80% of services were provided within school contexts (Hoagwood & Johnson, 2003). The numbers then were so grim that Kazdin (2008) concluded “we do not reach the vast majority of youth in need with *any* treatment” (p. 202, original emphasis). These data led us, along with many others at the time, to conclude that schools were serving as de facto youth mental health providers. Now that we are almost two decades into the new century (circa 2021), the trends in the youth mental health landscape have changed somewhat. As we describe below, although the prevalence of mental health disorders continues to be a major concern, access to services, while still not ideal, appears to have improved.

In terms of prevalence of mental health disorders, comprehensive, national studies have not been conducted with youth in recent years, and researchers have noted a gap in comparative prevalence data over time in the United States, making it challenging to determine clear trends (Merikangas, 2018). In a national sample of 13- to 18-year-olds (Merikangas

et al., 2010), there was an overall lifetime prevalence of 22.2% with severe impairment/distress, and about a 50% prevalence rate including all levels of severity. Other researchers have estimated that the lifetime prevalence rate of mental health issues by age 21 is as high as 80% (Copeland, Shanahan, Costello, & Angold, 2011). In a more recent study, utilizing data from the 2016 National Survey of Children's Health (a parent-report-based survey), it was estimated that 16.5% of youth in the United States have at least one mental health disorder, although there was striking variability in prevalence rates across regions—ranging from a low of 7.6% in Hawaii to a high of 27.2% in Maine (Whitney & Peterson, 2019). There have also been some studies indicating improvements in overall trends in specific areas. For example, Gruzca and colleagues (2018) observed a 49% decline in substance use disorders and a 34% decline in delinquent behaviors (e.g., stealing, fighting, selling drugs) among adolescents during a 12-year period, suggesting improvement in more severe forms of externalizing problems. Yet, other studies have noted increases over time in anxiety and behavior/conduct problems (Ghandour et al., 2019). Despite perhaps not knowing the “true” prevalence rates, it is clear that mental health concerns are still a major concern for our youth.

While access to mental health services does appear to be improving somewhat, large numbers of youth continue to go without needed treatment. Estimates from the 2016 National Survey of Children's Health indicate that 49.4% of youth with a mental health disorder did not receive needed treatment from a mental health professional, again with much variability across regions—ranging from a low of 29.5% in Washington, DC, to a high of 72.2% in North Carolina (Whitney & Peterson, 2019). Similar service access rates were observed in a longitudinal study by Costello, He, Sampson, Kessler, and Merikangas (2014), who found that 55% of adolescents with mental health problems did not receive needed services within the past 12 months. Costello and colleagues further analyzed adolescents' service access rates by type of mental health problem, comorbidity, and service usage. Following are some of their key findings:

- Among those receiving treatment in any setting, 68.7% of adolescents reported having three or more disorders, 44.0% reported having two disorders, 31.9% reported having one disorder, and 14.4% had no diagnosed disorder.
- Adolescents with externalizing problems (e.g., attention-deficit/hyperactivity disorder [ADHD], conduct disorder, and oppositional defiance) were about 1.5 times as likely to receive treatment than those with internalizing problems (e.g., anxiety and depression).
- The most common setting for accessing services was in schools (23.6%), followed by specialty mental health clinics (22.8%), general medical (10.1%), human service (7.9%), complementary and alternative medicine (5.9%), and juvenile justice settings (4.5%).
- Some mental health problems were much more likely to be treated in schools than others. For example, adolescents with ADHD were over twice as likely to receive services in schools compared to those with eating disorders (54.5% compared to 20.9%, respectively).
- Several concerning disparities in mental health service access were observed, including findings showing that Black adolescents were significantly less likely to access specialty mental health care compared to their counterparts.

Of note related to these findings is that while previous research indicated that three-quarters of youth receiving mental health services were accessing these services in schools only, current best evidence suggests the access rate for school-based services is much lower, potentially closer to one-fifth of total services. In fact, these much lower estimates of school-based care for youth were recently reinforced by a meta-analysis of service use rates from 14 studies, which indicated that schools were still the most commonly accessed mental health service setting for youth with elevated symptoms and/or clinical diagnoses (22.1%), but not by much, followed closely by outpatient mental health care (20.6%)—with substantially fewer youth

accessing services in primary care (9.9%), inpatient (9%), child welfare (7.9%), and juvenile justice (4.5%) settings (Duong et al., 2020). Although the slightly improved service access rates mentioned above—along with a good proportion of general or nondiagnosed youth also accessing mental health supports, likely for preventive purposes (e.g., 7.3% in schools and 7.3% in outpatient clinics; Duong et al., 2020)—might seem like good news, we believe that these improvements are simply *not big enough* and *not meaningful enough* to make an appreciable difference on the youth mental health landscape. Indeed, there are several contemporary indicators regarding youth mental health that are quite concerning to us as school psychologists.

Of particular concern is the youth suicide rate, which has been rising steadily over the last decade for all youth, has nearly tripled for youth ages 10–14 during this window, and now ranks as the second leading cause of death (after accidents) among 15- to 19-year-olds (Curtin & Heron, 2019). We have also learned a lot more in the past decade about the mental health disparities experienced by particular demographics of youth, such as those who identify as lesbian, gay, bisexual, transgender, queer, or questioning (LGBTQ). The 2020 National Survey on LGBTQ Youth Mental Health sponsored by the Trevor Project (2020) exemplifies just how concerning these disparities are, with findings indicating that 48% of LGBTQ adolescents have seriously considered suicide within the past 12 months, while 21% have made a serious suicide attempt during that same time. Furthermore, 46% of LGBTQ youth report wanting mental health services within the past year but not being able to receive such services (Trevor Project, 2020). Similar concerns regarding service use disparities have been observed for racially- and ethnically minoritized youth, with findings suggesting that internalizing problems are especially likely to go untreated among children and adolescents from diverse backgrounds (Gudiño, Lau, Yeh, McCabe, & Hough, 2009).

Yet another mental health concern that has become increasingly salient over the past two decades is the large numbers of youth experiencing

traumatic events—often referred to as *adverse childhood experiences* (ACEs)—and the effects of trauma exposure on their social–emotional and behavioral outcomes. For instance, findings from the 2016 National Survey of Children’s Health indicate that 82% of youth receiving mental health services had experienced at least one traumatic event prior to starting care, 41% of those with a trauma history had suicidal thoughts (compared to 21% of those without trauma exposure), and 23% of those with a trauma history had attempted suicide (compared to 13% without trauma exposure; Substance Abuse and Mental Health Services Administration, 2018). Alas, when we take a closer look at what is going on under the surface level of overarching trends, we see that not all changes within the youth mental health landscape have been encouraging, and that many contemporary trends are quite alarming. Thus, the imperative for school psychologists to take an active role in preventing and intervening with youth’s social–emotional, behavioral, and mental health still stands. Indeed, we suggest that this imperative will continue to stand as long as our best evidence suggests the following four trends, which it certainly does as of now (circa 2021):

1. Many youth experience significant mental health problems.
2. Most youth with mental health problems do not get the help they need.
3. For youth who do actually get help, schools remain a substantial source or setting for mental health services.
4. Mental health problem prevalence and service access rates are characterized by disparities for minoritized and marginalized youth.

Given the state of our knowledge about the youth mental health landscape today, we expect that school-based mental health services will be a valued and impactful emphasis of school psychological service delivery for years to come. We also believe that several recent professional shifts within our own field (and related fields) are building a broader momentum that is

likely to cement this imperative into a mainstay of school psychology practice. One such positive shift is the increased and intentional focus by NASP to advocate for school psychologists as behavioral and mental health providers (e.g., NASP, 2020b). Another is the increased interdisciplinary collaboration among educational and mental health professionals for the purposes of creating feasible and sustainable models of behavioral and mental health service delivery in schools, such as schoolwide social-emotional learning (SEL; Durlak, 2015), positive behavior interventions and supports (PBIS; Simonsen & Meyers, 2014), and the Interconnected Systems Framework (Eber et al., 2019). Yet another promising note is the increased engagement of national lawmakers to propose legislation that supports and expands mental health services in schools (e.g., Mental Health Services for Students Act of 2021 [H.R. 721], Increasing Access to Mental Health in Schools Act [H.R. 3572], Comprehensive Mental Health in Schools Pilot Program Act of 2021 [H.R. 3549])—although, to date, most of these efforts have yet to become federal law.

The Biden administration has also emphasized and allocated significant financial resources toward supporting school-based mental health programming, including funding for grant programs, professional training programs, and resource development initiatives, to improve the effectiveness of educators, administrators, and mental health professionals in providing social-emotional and behavioral supports in schools (www.whitehouse.gov/briefing-room/statements-releases/2021/10/19/fact-sheet-improving-access-and-care-for-youth-mental-health-and-substance-use-conditions/). And still another encouraging development is the willingness of local, regional, and national funding agencies to support initiatives explicitly devoted to advancing the science and practice of school mental health services, such as the National Center for School Mental Health at the University of Maryland (www.schoolmentalhealth.org); the School Mental Health Assessment, Research, and Training (SMART) Center at the University of Washington (<http://depts.washington.edu/uwsmart>); the Boone County Schools Mental Health Coalition at the University of Missouri

(<http://bcschoolsmh.org>); the nonprofit School-Based Health Alliance in Washington, DC (www.sbh4all.org); and the School Mental Health Collaborative cohosted by the University of Wisconsin and the University of South Florida (<https://smhcollaborative.org>).

Given the trends and shifts reviewed above, we believe there are good reasons for positing that regional and state-level mental health care policies are likely to have a strong influence on both the prevalence rates and service access rates of the youth mental health landscape. Therefore, we encourage school psychology students, practitioners, trainers, and researchers to advocate for policies and programming that are likely to build better social-emotional and behavioral health services into school systems. NASP provides a toolkit of advocacy resources and how-to documents toward this end (see www.nasponline.org/research-and-policy/advocacy), which we suggest all school psychologists should become familiar with as we seek to expand our influence on the youth mental health landscape. Beyond advocacy, we suggest the best ways for school psychologists to make a meaningful impact on youth well-being is by embracing the same core educational movements described in previous chapters: EBP, response to intervention (RTI), multi-tiered systems of support (MTSS), and—above all—the problem-solving approach. We turn now to further discussion of how these core movements inform school psychologists' practice as social-emotional, behavioral, and mental health providers.

EBP for Promoting Youth Mental Health

Before diving into EBP, RTI, MTSS, and the problem-solving model yet again, let's take a minute to refresh and differentiate these important educational movements from one another. As discussed in [Chapters 1](#) and [3](#), these movements are all intertwined, yet they maintain some distinguishing characteristics:

- *EBP* emphasizes the general processes of identifying, disseminating, promoting, and adopting empirically supported practices (e.g., Weisz & Kazdin, 2017).
- *RTI* refers to the process of providing an EBP that is matched to student needs and then using student response data to make decisions about the effectiveness of that specific EBP when applied in a particular, local situation (e.g., Burns, Jimerson, et al., 2016).
- *MTSS* is a service delivery heuristic for integrating EBP and RTI within a multilevel approach that addresses the learning and social-behavioral needs of all students (e.g., Stoiber, 2014).
- The *problem-solving approach* refers broadly to a scientific and pragmatic logic model that can be applied to remedy any undesirable situation (e.g., Pluymert, 2014).

To hearken back to the analogy used in [Chapter 1](#), we suggested that EBP, RTI, and MTSS could be conceptualized as *vehicles* for getting efficient and effective services into schools, and that the problem-solving approach could be thought of as the *fuel* that powers these vehicles. In this section, we focus our attention on one of these key vehicles for driving social-emotional, behavioral, and mental health supports in schools: EBP.

According to the American Psychological Association Presidential Task Force on Evidence-Based Practice (2006), EBP in psychology is defined as

“the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences” (p. 273).

Although much of the discussion regarding EBP was initially focused on evidence-based or empirically supported *treatments* (e.g., Chambless et al., 1998) and evaluating the research support for specific interventions, EBP has evolved into a more comprehensive term, taking into account not only the research but also the specifics about the client and the service provider (American Psychological Association Presidential Task Force on Evidence-Based Practice, 2006). Within youth mental health care specifically, EBP is often parsed into two submovements that work together hand in glove: evidence-based assessment (EBA) and EBI (Kazak et al., 2010). [Chapter 8](#) largely covered the terrain related to EBA for social–emotional, behavioral, and mental health concerns, so we do not rehash that material again here. Suffice it to say that, in addition to [Chapter 8](#), there are some excellent resources available on the topic of EBA for youth mental health, including recent review articles by Andrews, Cho, Tugendrajch, Marriott, and Hawley (2020); Becker-Haimes and colleagues (2020); Beidas and colleagues (2015); and Dart, Arora, Collins, and Doll (2019); as well as book-length treatments on the subject by Frick, Barry, and Kamphaus (2020); Whitcomb (2018); and Youngstrom, Prinstein, Mash, and Barkley (2020). Our interest in the present chapter, then, is to further promote EBP as it relates to youth mental health by fleshing out EBI and its role in the practice of school psychology. We start the conversation here with the basics, then revisit it again in [Chapter 11](#), where we pick up the thread regarding how to go about successfully implementing EBPs in schools. But first things first: How do we determine what makes an EBI?

In the early days of the EBP movement, a group of psychologists from Division 12 of APA (Society of Clinical Psychology) worked to develop criteria for what constituted an *empirically supported treatment*, which is a synonym for what we refer to herein as EBI. Originally, treatments were divided into “well-established” and “probably efficacious” categories. According to Chambless and colleagues (1998), a well-established treatment

is one that has at least two good between-group design experiments demonstrating efficacy in one or more of the following ways: superior (statistically significantly so) to pill or psychological placebo or to another treatment, equivalent to an already established treatment in experiments with adequate sample sizes, or a large series of single-case design experiments demonstrating efficacy. A probably efficacious treatment, on the other hand, is one that has been shown to be superior to a wait-list control group in at least two experiments, one that meets the primary criteria for a well-established treatment but has not been evaluated by at least two different research groups, or one that has a small series of single-case designs for support (Chambless et al., 1998). This original two-category scheme was later expanded with two more options: “possibly efficacious treatments,” where at least one good study supports the intervention, and “experimental treatments,” which are untested treatments (Silverman & Hinshaw, 2008). Starting in 1995 and to this day, Division 12 of APA has kept a regularly updated list of EBIs, some of which are applicable to youth (see <https://div12.org/psychological-treatments>). Likewise, Division 53 of APA (Society of Clinical Child and Adolescent Psychology) keeps a similar list that is specifically targeted to youth (see <https://effectivechildtherapy.org/therapies>).

Within the field of school psychology, the American Psychological Association Task Force on Evidence-Based Interventions in School Psychology, which was modeled after the original Division 12 task force noted above, was in place from 1999 to 2008. The purpose of this task force was to identify EBIs to address the wide-ranging social–emotional, behavioral, mental health, and academic needs of youth in school settings (e.g., Kratochwill, 2007; Kratochwill & Shernoff, 2004; Kratochwill & Stoiber, 2000a, 2000b, 2002). Its aims were therefore broader in scope than the original Division 12 task force, which focused solely on treatments for mental health problems or disorders. Although this school psychology task force developed several coding manuals, it was eventually disbanded prior to releasing a permanent product or establishing a formal, lasting listing of

EIBs. Hindsight suggests this task force likely dissolved due to the fact that, around the same time period, many other professional groups, which had more person power and financial resources than this school psychology task force, became involved with similar EBI-identification efforts. Now that we are some 20 years on from when this school psychology task force was born, many of these other, larger groups have come to play pivotal roles in informing our understanding of EBI related to behavioral and mental health concerns in schools. In addition to the Division 12 and Division 53 efforts noted above, some of the most influential groups that have shaped the EBI movement in school psychology include:

- What Works Clearinghouse, sponsored by the Institute of Educational Sciences at the U.S. Department of Education (<https://ies.ed.gov/ncee/wwc/FWW>).
- Guides for Effective Social and Emotional Learning Programs, published by the Collaborative for Academic, Social, and Emotional Learning (<https://pg.casel.org>).
- Blueprints for Healthy Youth Development registry, maintained by the University of Colorado (www.blueprintsprograms.org).
- National Center on Intensive Intervention, sponsored by the American Institutes for Research (<https://intensiveintervention.org>).
- Evidence-Based Practices Resource Center at the Substance Abuse and Mental Health Service Administration (www.samhsa.gov/ebp-resource-center).
- Crime Solutions registry for juveniles, by the National Institute of Justice (<https://crimesolutions.ojp.gov/topics/juveniles?ID=5>).
- Meadows Center for Preventing Educational Risk at the University of Texas at Austin (www.meadowscenter.org/library).
- California Evidence-Based Clearinghouse for Child Welfare (www.cebc4cw.org).
- [Youth.gov](http://youth.gov) Program Directory, sponsored by the U.S. government (<https://youth.gov/evidence-innovation/program-directory>).

- One Mind PsyberGuide for mental health apps (<https://onemindpsyberguide.org>).

Given the number and quality of EBI documented throughout the many listings and registries provided above, we think it is safe to say that there is now more than a sufficient evidence base to inform effective practice for promoting social–emotional, behavioral, and mental health in schools. Indeed, since the last edition of this book was published over a decade ago, our field has come a long way—and made good progress—in both identifying EBI and making EBI-related resources accessible to practitioners. Our field has also progressed in expanding EBI beyond targeting only deficits and disorders, expanding our horizons to promote well-being and complete mental health. Yet, ironically, this progress has also become somewhat of a double-edged sword. The problem nowadays is no longer a *lack of available* EBIs for school psychologists to choose from but rather an overabundance of EBI-related resources that are characterized by a general *lack of agreement* in how to select, evaluate, and classify the quality of evidence supporting a given intervention. Thus, for example, a particular social–emotional intervention approach might be listed in one registry but not another, or, when listed in multiple registries, might be classified as having more promising evidence in one compared to the other. There is also an increasing number of books and edited volumes on EBIs for youth mental health issues, which is a boon for practitioners. But many of these collections fall short in the area of specifying the criteria by which the interventions were selected and evaluated for inclusion within a volume (e.g., Theodore, 2016). Given this situation, we believe the challenge for contemporary school psychologists is to become savvy consumers of an abundance of EBI-related resources. We expect that the growing presence of social media and online resources might compound this challenge in years to come. Yet we are also optimistic that some other movements in the field, like the development of regional technical assistance centers for supporting EBIs (e.g., Mental Health Technology Transfer Center Network;

<https://mhttcnetwork.org>), might help distill and streamline EBI-related information for guiding school-based mental health services.

Another factor that contributes to the difficulty of navigating the many available EBI-related resources is the fact that criteria for evaluating and classifying EBIs are moving or evolving targets. For instance, within the last decade, greater emphasis has been placed on incorporating evidence from single-case designs into the EBI determination process (e.g., Kratochwill et al., 2013), resulting in the need to revise previous EBI classifications that were based largely on group design considerations. Similarly, within just the past 5 years, a working group from Division 12 has proposed a new, comprehensive model for EBI standards that would increase both the rigor and complexity of the evaluation process (Tolin, McKay, Forman, Klonsky, & Thombs, 2015)—and which would likely result in the need to completely reclassify all EBIs considered by this group under the original model. These intermittent updates to EBI criteria suggest that school psychologists would do well to stay attuned to developments in research methods and statistical analyses, and that they should engage in continued professional development to keep abreast of the state-of-the-science as new findings are integrated. In addition, we suggest that EBI should be implemented with careful adherence to a problem-solving model that guides the initial selection of EBI that appropriately fits the problem identification and analysis, as well as incorporates a formative assessment process to determine whether, in fact, the intervention was effective within the practice context. As mentioned in earlier chapters of this book, this approach is analogous to Cronbach's (1975) argument for the use of "short-run empiricism," which balances scientific rigor with the immediate, practical considerations of present-moment conditions. Stoiber and DeSmet (2010) refer to this as the "practitioner as researcher" or "evidence-base-applied-to-practice" approach, noting that "it acknowledges the importance of integrating science and practice but also recognizes the challenges inherent in this integration" (p. 227).

All that said, we hope we have now provided a thorough answer to the question posed at the beginning of this section: How do we determine what makes an EBI? In short, we do so through an iterative, evolving process that requires a collaborative effort toward synthesizing our best available evidence, followed by personal efforts to adapt procedures to our practice situation and then test-drive interventions in real time using a problem-solving approach. An important take-home message that we wish all school psychologists would take to heart, then, is this: although EBI alone is far from foolproof, taking a problem-solving approach to EBI increases our probability of becoming surefire practitioners. To further illustrate what we mean by this claim, we move next to a description of the problem-solving approach within the context of EBI for social–emotional, behavioral, and mental health concerns in schools.

Problem-Solving Approach to Promoting Youth Mental Health

To begin our discussion, let us first revisit some key points in our argument advocating for the use of a problem-solving approach to guide school psychology, as laid out in [Chapter 3](#). First, we argued that the traditional refer–test–place model of school psychology practice was inadequate. More specifically, we described how assumptions in the philosophically based system that dominated early practice (i.e., that diagnosis informs treatment) were questionable (e.g., Deno, 2002; Tilly, 2002) and how school psychologists had been faced with enough practice failures from this approach to consider alternatives. Next, we argued that school psychologists might approach problems from a different perspective: a data-driven problem-solving approach that focuses on using a scientific and pragmatic logic model to determine what works. We then offered a synthesis of the four stages or phases that comprise this approach, as well as their big guiding questions, based primarily on Tilly’s (2002, 2008) and Pluymert’s (2014) descriptions of this model (see also [Chapter 3](#), [Figure 3.2](#)):

1. *Problem identification*—What is the problem?
2. *Problem analysis*—Why is it occurring?
3. *Intervention plan development*—What should be done about it?
4. *Intervention plan evaluation*—How did it work?

This logic model is guided by data with an emphasis on formative assessment to determine the effectiveness of prevention and intervention efforts. Thus, in a problem-solving approach, “instead of measuring student performance to find disabilities our purpose is to diagnose the conditions under which students’ learning is *enabled*” (Tilly, 2002, p. 29, original emphasis). Finally, we argued in [Chapter 3](#) that one of the defining features

of the problem-solving approach is its inherent self-correcting nature. If the process does not work to solve the problem, then the stages or phases can be recycled, reflexively and iteratively, to figure out why not, and, eventually, produce success. Our purpose in the remainder of this section is to demonstrate how some of these key problem-solving features map onto improving school psychologists' capacity to support students' social-emotional, behavioral, and mental health.

As we noted in [Chapter 3](#), the purpose of schooling is to alter development (cognitive, affective, social, and physical) from its natural or unschooled course (Deno, 2002). For example, from an academic learning standpoint, we expect that students' reading, writing, and math performances will be altered through the course of schooling. In addition, we recognize that students learn to read at different rates and that problem solving is necessary to determine proper alignment of student, instructional, and curriculum variables to facilitate literacy development. Although we often think of schooling in terms of academic development, it is also true that most of us (e.g., educators, parents, students, teachers, and community members) expect schools to address broader issues for students. Initiatives toward this end have often described their target as promoting the development of the "whole child," as opposed to only the academic or educational competencies of the child (e.g., Darling-Hammond & Cook-Harvey, 2018; Lewallen, Hunt, Potts-Datema, Zara, & Giles, 2015). Similarly, when situated within the context of mental health work in schools, scholars often refer to this approach as addressing students' "complete mental health" (e.g., Dowdy et al., 2015; Furlong, Dowdy, Carnazzo, Boverly, & Kim, 2014; Hymel, Low, Starosta, Gill, & Schonert-Reichl, 2018). Greenberg and colleagues (2003) capture this broader educational agenda like so:

In addition to producing students who are culturally literate, intellectually reflective, and committed to lifelong learning, high-quality education should teach young people to interact in socially skilled and respectful ways; to practice positive, safe, and healthy behaviors; to contribute ethically and responsibly to their peer group, family, school, and

community; and to possess basic competencies, work habits, and values as a foundation for meaningful employment and engaged citizenship. (pp. 466–467)

The gist of the whole-child and complete mental health perspectives is that schools play a pivotal role in altering student development from its unschooled course across a wide range of domains, including social–emotional, behavioral, and mental health competencies. Just as individual differences exist in how students develop literacy skills, the development of social–emotional competence is not a uniform process across students. Thus, problems arise when gaps exist between current and expected levels of students’ mental health and social–emotional functioning. As we described earlier, taxonomies of mental health problems, such as DSM-5 (American Psychiatric Association, 2013) and empirical analysis of behavioral dimensions (e.g., Achenbach, 2017), can help to organize our thinking about what constitutes a problem in regard to expected and actual performance in the domains of mental health and social–emotional functioning. Specifically, these classification schemes help us determine whether or not a problem exists (i.e., whether the child’s mental health functioning is discrepant from developmentally normal levels of functioning) and they provide some information regarding the structure of the observed problem. In this way, classification schemes facilitate inroads for intervention (Kilgus & Riley-Tillman, 2019; Scotti, Morris, McNeil, & Hawkins, 1996). Although these classification systems can be a useful starting point in defining problems during Step 1 (i.e., problem identification) of the problem-solving process, it is important to note that diagnostic or category labels often fail to clearly and fully specify the target problems in context. For example, knowing that a youth has a diagnosis of ADHD (a DSM-5 classification) or demonstrates clinical-level “externalizing problems” (a behavioral-dimensions category), does not tell us much about what specific problematic behaviors are showing up within the classroom (e.g., talking out during instruction or noncompliance with teacher requests), nor what variables might be maintaining these specific problems (e.g., peer attention or escaping difficult

demands). Thus, during Step 1 of the problem-solving process, when we ask, “What is the problem?” it is important to fully and clearly define what the problem “looks like,” as well as the context in which it occurs.

When we move on to problem analysis and ask “why” or “what for” questions about problem behaviors, the utility of diagnostic or structural classification systems is reduced, and we need to consider assessment procedures that have been found to be more directly linked to intervention development, such as functional assessment or functional analysis (Kilgus & Riley-Tillman, 2019; for a comprehensive description of functional approaches to assessment, see Cooper et al., 2020; Steege et al., 2019). That said, when we begin to think about intervention strategies (i.e., What can we do about the problem?), it is often useful to return to consideration of diagnostic and structural classification systems, as the majority of listings, registries, and other resources providing access to EBIs are organized according to these frameworks (e.g., Burns et al., 2017; Theodore, 2016; Weisz & Kazdin, 2017). We should do so with caution, however, knowing that we need to carefully consider issues of contextual fit and individual responsiveness to intervention, which are at the heart of the problem-solving approach.

During the fourth phase or stage in the problem-solving process (i.e., intervention plan evaluation), it is important to directly evaluate the effectiveness of the intervention—and then refine or iterate the plan, as necessary. Although intervention effects on mental health problems might be evaluated at the diagnostic level (e.g., Does the youth still meet criteria for anxiety disorder?) or other categorical level (e.g., Has there been a decline in clinical-level internalizing problems?), it is also important to evaluate effects at the more proximal level of specific target problems in context (e.g., Has engagement with reading tasks increased? Has use of coping skills improved during anxiety-provoking social situations?). Evaluating progress at the level of specific target problems is likely to both be more sensitive to behavior change and yield more useful outcome data for refining and iterating interventions. As we mentioned in [Chapter 3](#), the

problem-solving process *sometimes* works well on the first try, but definitely not *always*. Just as with academic problems, we have observed that many social–emotional problems require multiple tweaks, adjustments, and updates prior to achieving good outcomes. Flexibility, persistence, and responsiveness are therefore invaluable qualities for any school psychologist—as well as any interdisciplinary team—engaged in school-based mental health work.

As outlined earlier in this chapter, society in general and schools in particular are still facing the immense challenge of supporting students’ social–emotional, behavioral, and mental health. These problems are often complex and occur in combination with multiple academic problems. Reviewing the data from several national longitudinal studies regarding the educational outcomes of students with identified emotional and behavioral disorders, Bradley, Doolittle, and Bartolotta (2008) conclude, sadly, that “the outcomes for these students continue to be dismal” (p. 4). And in many instances, we suspect that social–emotional and mental health concerns may actually cause or drive other and later-life challenges. For example, a longitudinal study of youth identified with emotional disturbance during their school years indicated that they had poorer transition outcomes and higher rates of involvement with the criminal justice system after completing schooling than did their counterparts without emotional problems (Wagner & Newman, 2012). And in a sweeping review of global data on this topic, the World Health Organization (2014) lends broad support to this idea, concluding that internalizing problems are likely the greatest contributor to illness and disability in adolescence worldwide. With such enormous challenges at our doors, it is useful to pause and reflect on what the most useful course of action might be for school psychologists. We suggest the answer is simple, but far from easy: embrace EBI with a problem-solving mindset.

In order for school psychologists to be both maximally efficient *and* effective problem solvers on the EBI front, they must also be skilled at applying these practices within an MTSS framework intended to support the

needs of *all* youth within a school population. Although other school-based professionals (e.g., school counselors and social workers) and community providers (e.g., child clinical psychologists) may be trained in using EBI and even a problem-solving approach to address youth's mental health concerns, we suggest that school psychologists make a unique and substantial contribution to the youth mental health landscape by being experts in the application of these practices within a multi-tiered approach that provides not only treatment but also prevention and early intervention that is appropriately matched to student needs. We further map the ins and outs of an MTSS approach to mental health in schools in the following section.

A Multi-Tiered Approach to Supporting Youth Mental Health in Schools

In the past decade, much has been written on efforts to apply, establish, and sustain an MTSS framework for school-based behavioral and mental health services (e.g., Eber et al., 2019; Kilgus & von der Embse, 2019; Weist, Lever, Bradshaw, & Owens, 2013). Prior to the last decade, around the time the previous edition of this book was published (circa 2012), MTSS applied to this domain was usually described as the public health model of school mental health. Thus, whether we use the term MTSS or *public health model*, we are talking about the same big idea of applying a multi-tiered perspective to addressing social–emotional concerns in schools. The important point here is that it is the adaptation of public health models to developing systems of support for students within school settings that paved the way for our present-day understanding of MTSS and applications of prevention science in schools (Herman et al., 2019). As described earlier in this book, we generally operationalize the MTSS model via three tiers of service delivery:

- *Tier 1 or universal supports* refers to low-intensity services that are provided to *all* students within a school population, without regard of risk status.
- *Tier 2 or targeted supports* refers to moderate-intensity services that are provided to *some* students, based on identified risk factors or early indicators of problems.
- *Tier 3 or intensive supports* refers to high-resource services that are provided to *few* students, based on indicators showing significant risk factors or severe problems.

Within a school mental health context, the aim of Tier 1 services is to promote the “complete mental health” (Furlong, Dowdy, et al., 2014) of the student population, which prevents the development of social–emotional problems, buffers against any existing problems, and nurtures well-being (see Fallon, Mueller, Kurtz, & Cathcart, 2019, for an overview of Tier 1 basics). The aim of Tier 2 services, then, is to support students “at risk” for behavioral problems early and efficiently, preventing the possibility of worsening risk factors or the development of more severe mental health problems over time (see Campbell, Rodriguez, & Schrauben, 2019, for an overview of Tier 2 basics). Finally, the aim of Tier 3 services is to support students “in risk” immediately and effectively, preventing further development of chronic and costly behavioral or social–emotional problems throughout the lifespan (see Hawkins, Collins, Luevano, & Faler, 2019, for an overview of Tier 3 basics).

Returning to the river parable that we presented in [Chapter 3](#), a public health prevention framework considers not only the needs of students who are already experiencing difficulties (i.e., children in the river) or at risk for experiencing difficulties (i.e., children close to the river) but also those who are not at risk or experiencing difficulties (i.e., children who are safely on dry land). As illustrated in the two interlocking or reflective triangles of MTSS (see [Chapter 3](#), [Figure 3.1](#)), the key feature of the public health approach is not necessarily the percentage of students captured within each tier—or even the number of tiers included within the model—but rather the two aspects of practice that are under our intentional control as school psychologists: (1) the scope of students receiving services and (2) the intensity of services provided to those students. The relationship between these two triangles is then tuned (up or down) depending on the aims of our services and the presence of risk or problems.

Arguably, the bulk of school psychology and special education practice has focused on the provision of intensive services to children who are already experiencing behavioral and mental health difficulties (Forness, 2003a; Hoagwood & Johnson, 2003; Kazdin, 2008; Shapiro, 2000). As

Shapiro (2000) aptly noted, “The difficulty with a child-by-child focus is that while we are solving little problems, we are missing the big problem” (p. 561). The same argument has been made over the past two decades or more regarding the provision of social–emotional, behavioral, and mental health services to students in school settings (e.g., Greenberg, 2010; Hoagwood & Johnson, 2003; Strein et al., 2003; Walker et al., 1996). One potentially positive outcome of this shift in focus is the likelihood that through prevention and early intervention efforts we may reduce the number of students with or at risk for the development of more severe problems. This is indeed a meaningful goal when one considers the enormous amount of time and resources that are spent in reactive management of the most severe problems. For example, students with severe behavior problems account for a relatively small portion of the school population (1–5%), yet they are often the focus of greater than 50% of office discipline referrals and may take up a significant amount of educator and administrator time (Sugai, Sprague, Horner, & Walker, 2000). Furthermore, with early prevention and intervention efforts in place, it may be possible to alter developmental trajectories in such a way that we reduce the incidence of psychopathology in our children and youth (Forness, 2003a, 2003b; Herman et al., 2019).

When it comes to promoting behavioral and mental health in schools, the primary concern has not been whether MTSS is useful for helping promote mental health but rather how to best *integrate* multiple types of services that are derived from different theoretical and empirical literatures. We tend to think of these different approaches to mental health service delivery as belonging to two complementary traditions: applied behavior analysis (ABA) and cognitive-behavioral therapy (CBT). When applied to contemporary educational frameworks, these traditions manifest in two complementary approaches to MTSS: PBIS and SEL. Although some schools might focus on one or the other approach (PBIS vs. SEL), we believe the best tact is an *integrated* approach that combines the best of both traditions (PBIS + SEL).

The gist of PBIS is to proactively teach behavioral expectations and then to enhance environmental supports—typically focusing on changing how adults at school respond to student behavior—in order to decrease disruptive behavior in the classroom, increase academically engaged behavior, and improve prosocial behavior among students, as well as between students and teachers (Simonsen & Meyers, 2014). The gist of SEL, on the other hand, is to intentionally train self-regulation, responsible decision making, and relationship skills in order to decrease psychological distress, improve psychological well-being, enhance interpersonal relationships, and increase academic success (Durlak, 2015). It is noteworthy that both positive behavioral interventions and supports (PBIS) and social–emotional learning (SEL) have shared aims of promoting positive relationships and academic success. The reason for their nonshared aims, however, can be traced back to their different theoretical foundations. PBIS strategies are derived from basic behavioral principles of reinforcement and punishment, which emphasize the relationships among directly observable behavior and environmental events (see Cooper et al., 2020, for a thorough review of related theories). SEL strategies are derived from cognitive-behavioral and social–cognitive principles, which emphasize the influence of thoughts and emotions (which are, at best, only indirectly observable) on directly observable behavior (see Dobson & Dozois, 2010, for more on these theories). Ergo, PBIS focuses almost exclusively on directly observable behavioral outcomes, whereas SEL has a more balanced focus on both “soft” (indirectly observed) and “hard” (directly observed) outcomes that align with broader mental health concerns.

To date, our best evidence suggests that both PBIS and SEL are effective approaches for promoting youth’s behavioral and mental health in schools. Starting with SEL, a large meta-analysis of 213 classroom-based interventions has shown small, positive effects on students’ attitudes toward school, prosocial behavior, conduct problems, emotional distress, and academic performance—as well as moderately positive gains in actual SEL skills (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). An

additional analysis of follow-up effects, collected 6 months to 18 years postintervention, from 82 interventions (of the original 213) demonstrated that positive effects were maintained over time and generalizable across youth from varying demographics (Taylor, Oberle, Durlak, & Weissberg, 2017). Additionally, a meta-analysis of school-based cognitive-behavioral interventions implemented across tiers reported consistently positive effects for reducing anxiety and depression symptoms, with stronger effects observed for the more intensive tiers (Mychailyszyn, Brodman, Read, & Kendall, 2012). Further support for SEL has been shored up by the growing evidence for mindfulness-based interventions (MBIs) in schools, which can be understood as a subtype of SEL focused specifically on training self-awareness and self-management skills (for more on MBI in schools, see Felver, Doerner, Jones, Kaye, & Merrell, 2013; Renshaw, 2020; Renshaw & Cook, 2017; Schonert-Reichl & Roeser, 2016). Taken together, several systematic reviews and meta-analyses now suggest that MBIs are broadly effective for promoting youth's social-emotional and mental health functioning, especially in school settings (e.g., Carsley, Khoury, & Heath, 2018; Felver, Celis-de Hoyos, Tezanos, & Singh, 2016; Klingbeil, Fischer, et al., 2017; Klingbeil, Renshaw, et al., 2017; Vekety, Logemann, & Takacs, 2020).

When it comes to PBIS, the available evidence is likewise compelling, but limited to a narrower range of behavioral health outcomes. Although SEL is typically evaluated at the level of broad treatment packages or curricula, evidence in favor of PBIS is found at finer-grained levels of practice elements or procedures—what Embry (2004) and Embry and Biglan (2008) call “evidence-based kernels” or “fundamental units of behavioral influence.” At the Tier 1 level, meta-analyses have shown several kernels to be effective for improving student behavior and academic performance, including the Good Behavior Game (e.g., Bowman-Perrot et al., 2016), token economy systems (e.g., Soares, Harrison, Vannest, & McClelland, 2016), social skills training (e.g., January, Casey, & Paulson, 2011), targeted teacher feedback to students (e.g., specific praise and

reprimands; Wisniewski, Zierer, & Hattie, 2020), and other proactive classroom management strategies (e.g., Solomon, Klein, Hintze, Cressey, & Peller, 2012). At Tier 2, meta-analyses support several additional evidence-based kernels for improving student behavior, such as school-home notes or daily behavior report cards (e.g., Vannest, Davis, Davis, Mason, & Burke, 2010), check-in/check-out (e.g., Park & Blair, 2020), time-out procedures (e.g., Vegas, Jenson, & Kircher, 2007), peer-mediated interventions (e.g., Dart, Collins, Klingbeil, & McKinley, 2014), behavior contracts (e.g., Bowman-Perrot, Burke, de Marin, Zhang, & Davis, 2015), and other self-management interventions (e.g., Briesch & Briesch, 2016). And at Tier 3, individualized behavioral skills training and function-based interventions have been shown to be effective for diverse student populations, with a variety of presenting behavioral problems, and within both general and special education settings (e.g., Gage, Lewis, & Stichter, 2012; Goh & Bambara, 2012; Miller & Lee, 2013; Walker, Chung, & Bonnet, 2018).

So, given that SEL and PBIS are both independently effective across the tiers, why do we advocate for an *integrated* approach to mental health supports as best practice? Or, in other words, what is the value added or benefit for school psychologists when using an integrated approach (PBIS + SEL) compared to independent approaches (PBIS vs. SEL)? We believe Domitrovich and colleagues (2010) do the best job of answering this question, as they make the case for an integrated approach to MTSS in schools. We summarize their argument as follows:

1. Similar behavioral and mental health problems can be caused and maintained by different factors, some internal and some external to students.
2. PBIS and SEL use different theories for analyzing problems, leading to different strategies for intervening with problems.
3. Regardless of theoretical differences, PBIS and SEL also have some overlapping or shared strategies for intervening with problems.

4. Thus, integrated approaches to prevention may maximize exposure to the effective ingredients shared by both PBIS and SEL, while increasing contact with the effective ingredients that are also unique to PBIS or SEL.
5. Ultimately, then, integrated prevention approaches increase the probability that youth experiencing problems will receive more effective supports.

To truly optimize integrated supports within an MTSS framework, Domitrovich and colleagues (2010) propose that these efforts require both *horizontal integration*, which refers to combining PBIS and SEL strategies *within tiers*, as well as *vertical integration*, which refers to combining strategies from the different traditions *across tiers*.

An example of a horizontally integrated approach at Tier 1 is the PATHS to PAX program developed through a collaboration of the Johns Hopkins Center for Prevention and Early Intervention, the Pennsylvania State University Prevention Research Center, and the Paxis Institute. PATHS to PAX integrates the Promoting Alternative Thinking Strategies (PATHS) curriculum (which is an evidence-based SEL strategy) with the PAX version of the Good Behavior Game (GBG; which is an evidence-based PBIS strategy) into a coordinated classroom-based strategy (Ialongo et al., 2019). Outcomes from a randomized controlled trial (RCT) evaluating the combined and isolated effects of PATHS to PAX components with 27 elementary schools indicate that the integrated intervention (PATHS + PAX-GBG) was more effective for improving social competence compared to the isolated interventions (PATHS vs. PAX-GBG). Furthermore, classrooms that had the strongest implementation of the integrated intervention (i.e., >75th percentile for number of activities and minutes of implementation) also showed greater improvements in academic engagement and emotion regulation compared to the isolated interventions (Bradshaw, Shukla, Pas, Berg, & Ialongo, 2020). Another example of an effective horizontally integrated program at Tier 1 was reported in a smaller,

quasi-experimental study by Cook and colleagues (2015), who investigated the independent and combined effects of teacher-implemented Strong Kids (an evidence-based SEL curriculum; <https://strongkidsresources.com>) and a package of teacher-led proactive classroom management strategies (widely used EBPs within PBIS) on elementary students' externalizing and internalizing problems. The upshot of this study was that the integrated intervention (PBIS + SEL) had stronger effects on reducing both internalizing and externalizing problems compared to the independent interventions (PBIS vs. SEL). Interestingly, comparisons of the independent conditions indicated PBIS and SEL were similarly effective for addressing externalizing problems, yet SEL was clearly more effective than PBIS for improving internalizing problems (Cook et al., 2015).

When it comes to integrated supports at Tier 2 and Tier 3, researchers have yet to conduct clear component analyses demonstrating the value-added effects of combining SEL and PBIS strategies. Yet the logic track outlined by Domitrovich and colleagues (2010), described above, can still be applied within the scope of practice to increase the probability that students receive more effective mental health services. A few smaller-scale studies provide promising evidence toward this end. For instance, at Tier 2, Eklund and colleagues (2019) report on the encouraging effects of an integrated intervention for students with behavioral problems that combines the check-in/check-out procedure with social skills instruction. Similarly, Kilpatrick and colleagues (2021) describe an analogous effort for targeting internalizing problems at Tier 2, integrating the check-in/check-out procedure (PBIS strategy) with small-group cognitive-behavioral instruction (SEL strategy). Although we are unaware of published examples of integrated interventions at Tier 3, we suggest that examples are easy to imagine in practice. For example, an adolescent experiencing severe mathematics test anxiety might benefit from intensive training in relaxation skills (based on cognitive-behavioral principles) integrated with individualized skills training in specific test-taking strategies (based on basic behavioral principles).

Trainers, practitioners, and students in training who are looking for further guidance on how to go about establishing and sustaining integrated MTSS efforts are referred to two free monographs by Barrett, Eber, and Weist (2013) and Eber and colleagues (2019) on what has come to be known as the *Interconnected Systems Framework*. Both of these works provide comprehensive background, excellent examples, and extensive practical tools and resources for informing integrated, multi-tiered approaches for promoting behavioral and mental health in schools. And for readers interested in more detailed information about particular EBIs from the PBIS or SEL traditions—or for evidence-based kernels that are best matched to specific tiers or levels of support—we refer you back to the several comprehensive resources and lists mentioned earlier in this chapter, including Burns and colleagues (2017), Embry (2004), Embry and Biglan (2008), Radley and Dart (2019), Theodore (2016), and Weisz and Kazdin (2017). Suffice it to say that there is now an abundance of resources for guiding school psychologists in providing multi-tiered mental health services in schools.

Critical Issues and Future Directions for School Mental Health Services

As we come to the close of this chapter, we directly address some of the critical issues facing school psychology as we strive to provide evidence-based school mental health services. A recent discussion paper by Shernoff and colleagues (2017) distills several of these concerns into four current challenges related to using EBIs for youth mental health:

1. EBIs “do not consistently address multiple referral concerns and have redundancies that are burdensome for training programs” (p. 221).
2. EBIs “largely conform to direct services that restrict scope of practice” (p. 223).
3. EBIs “lack cultural responsiveness and flexibility to adapt to the local context” (p. 225).
4. And “service delivery in schools is broad in scope [i.e., multi-tiered], and [EBIs] are moving targets [i.e., continuously under development]” (p. 226).

To successfully meet these challenges, Shernoff and colleagues (2017) recommend four potential solutions:

1. “Embedding common elements [of EBIs] into graduate training” (p. 221).
2. “Strengthening the link between consultation and dissemination” (p. 224).
3. “Leveraging existing consultation models and technology to support culturally competent practice” (p. 225).
4. “Building trainee’s skills as evidence-based providers” (p. 226).

We endorse each of these recommendations and believe they are fully consistent with a problem-solving-oriented, integrated, multi-tiered approach to mental health supports we have described so far in this chapter. To further flesh out these recommendations, we end the chapter by focusing on some contemporary issues that we believe are especially important for students and the next generation of school psychologists to be aware of. Most of these topics were not discussed in the sections above, yet we propose that each is compatible with our broader view of advancing the role of school psychologists as mental health providers. Ultimately, we hope these primers might serve to pique readers' interests and expand their horizons regarding future directions for supporting social-emotional and behavioral health in schools. We turn now to brief introductions to the following five topics: after-school programming, parent management training (PMT), transdiagnostic CBT, single-session interventions (SSIs), and collaborative care (CC).

After-School Programming

Mounting research suggests that how and where students spend their time outside of normal school hours has important implications for their development (Durlak & Weissberg, 2007). In recent years, researchers have also explored the effectiveness of after-school programs in addressing these concerns, with findings offering empirical support for the conclusion that well-run after-school programs (i.e., those that provide sequential, active, focused, and explicit approaches to skill development) can produce a variety of positive benefits for participating youth. A meta-analysis by Durlak, Weissberg, and Pachan (2010) of 75 studies evaluating SEL-type after-school programs indicated that these interventions had small, positive effects on youth's feelings and attitudes, behavioral adjustment, and school performance. Given that many schools nowadays sponsor after-school programming for both child care and educational purposes, we suggest that school psychologists might expand the scope of their practice by leveraging

this time for intentionally promoting youth's behavioral and mental health. In settings with large numbers of students receiving after-school care, school psychologists could possibly take an MTSS approach to service delivery, providing a range of universal, targeted, and intensive mental health interventions in after-school hours.

Parent Management Training

PMT is perhaps the most well-researched treatment for oppositional and aggressive behavior in children and adolescents (e.g., Michelson, Davenport, Dretzke, Barlow, & Day, 2013). Although specific procedures vary across programs, the majority of PMT approaches emphasize teaching parents to use contingency management techniques, which are based on the basic behavioral principles of punishment and reinforcement, to effectively manage their child's problem behaviors (see Forgatch & Kjøbli, 2016, for an in-depth review of one PMT model and its adaptations). In the previous edition of this book (circa 2012), we provided a thorough review of PMT and recommended its use for school psychologists. We feel just as strongly about the importance of PMT a decade later—and suggest that it is clearly a best practice for Tier 3 behavioral intervention.

In the last several years, there is also growing evidence to suggest that PMT can be useful at other tiers of service delivery. For example, a meta-analysis of the Triple P—Positive Parenting Program, which has five levels of implementation that are analogous to a multi-tiered intervention model, indicates that parenting practices and youth's behavioral outcomes can be positively impacted at all levels of implementation (Sanders, Kirby, Tellegen, & Day, 2014). Research has also recently extended parent training approaches into the realm of internalizing problems (e.g., the Supportive Parenting for Anxious Childhood Emotions [SPACE] program; Lebowitz, Omer, Hermes, & Scahill, 2014), suggesting another means by which school psychologists might support youth's mental health across settings. PMT can help to address the challenges faced by school psychologists as it expands

our scope of practice beyond the school walls and is also flexible enough to adapt to cultural considerations in working with families.

Transdiagnostic CBT

In the previous edition of this book (circa 2012), we reviewed at length the efficacy of CBT for treating childhood anxiety and depression. At that time, the evidence for CBT with youth was already strong, and it has only continued to grow over the past decade (e.g., Weisz, Bearman, Santucci, & Jensen-Doss, 2017). As mentioned above, a meta-analysis also indicates CBT is largely effective when implemented across the tiers of service delivery in schools (Mychailyszyn et al., 2012). A more recent development in CBT with youth is the movement toward *transdiagnostic* approaches. Whereas traditional CBT protocols target isolated disorders or problems (e.g., anxiety or depression or conduct problems), the gist of transdiagnostic protocols is to use a common approach for targeting *multiple* or *co-occurring* problems (Marchette & Weisz, 2017). Transdiagnostic CBTs recognize the reality that most youth present with multiple problems, while also addressing the challenge practitioners face when tasked with addressing multiple referral concerns in a coordinated way (Bearman & Weisz, 2015). Reflecting on the material reviewed already in this chapter, we could say that SEL and MBI might be considered transdiagnostic approaches to universal or Tier 1 prevention in schools. The child clinical science literature has also yielded several transdiagnostic protocols that might be especially useful for guiding school psychologists' practice at the Tier 3 level.

So far, evidence suggests that the following transdiagnostic protocols are particularly promising for youth at Tier 3: the modular approach to therapy for children with anxiety, depression, trauma, and conduct problems (MATCH-ADTC; e.g., Chorpita et al., 2017); the FIRST program for behavioral and emotional problems (e.g., Weisz, Bearman, et al., 2017); and the unified protocol for emotional disorders in children (e.g., Kennedy, Bilek, & Ehrenreich-May, 2019). In addition to formal protocols, there are

also a couple of broader treatment frameworks that are now recognized as effective for supporting multiple and co-occurring presenting problems in youth, including acceptance and commitment therapy (ACT; e.g., Fang & Ding, 2020) and dialectical behavior therapy (DBT; e.g., MacPherson, Cheavens, & Fristad, 2013). We encourage school psychologists to embrace transdiagnostic CBTs, at both the protocol and framework levels, and to explore new ways of adapting these approaches within integrated MTSS in schools. Doing so may help improve both the efficiency and scope of our practice as mental health service providers.

Single-Session Interventions

Another frontier within the youth mental health literature has been the validation of so-called SSIs. In short, SSIs refer to structured interventions that consist of only one visit or encounter with an intervention program (including online and self-guided programming), clinic, or provider (Schleider & Weisz, 2017a). Most SSIs are derived from common elements of larger CBT protocols, aiming to distill the active ingredients of behavior change into a more focused and concentrated dosage. A recent meta-analysis of 50 SSIs with youth indicated positive effects for externalizing or conduct problems, as well as anxiety, for both direct (i.e., youth-focused) and indirect (i.e., parent-focused) SSIs (Schleider & Weisz, 2017b). The research in this area is still emerging and heterogeneous, so we should say that we do not yet believe it has reached the point of being able to clearly inform practice. But we highlight this topic because we think it has promise for improving the overall efficiency and accessibility of mental health services provided in schools. Specifically, SSIs might expedite positive intervention effects, reduce the total length of treatment, decrease the wait times or delays to receiving intervention, and thereby increase the overall number of youth who might potentially receive and benefit from mental health services provided by a practitioner or program (see Schleider, Dobias, Sung, & Mullarkey, 2020, for further discussion of these issues). Considering

the several challenges faced by school psychologists when providing EBI for mental health in schools (reviewed above), we propose that SSIs might be a pivotal solution for helping us reach more youth, with more effective services, in less time, and with fewer resources.

Collaborative Care

As mentioned repeatedly throughout this book, school psychologists' value and promote collaboration to better support student success. This is just as true in the behavioral and mental health domain as it is in the academic achievement and performance domain. When it comes to supporting youth's mental health, it is especially important for school psychologists to be mindful of the many other providers and settings within which students receive related services. Kazak and colleagues (2010) refer to the interconnectedness of service settings as the *meta-systems perspective* or the *youth mental health ecosystem*, pointing out that youth might receive mental health services in pediatric or primary care settings, specialty mental health clinics, juvenile justice, substance abuse, and child welfare or protection systems. CC is a framework or model that advocates for interprofessional, interagency, interdisciplinary, and multidisciplinary health providers working together to support students with complex or severe behavioral and mental health concerns (Lyon et al., 2016) for the purposes of facilitating both higher-quality and more equitable care (McClain, Shahidullah, Harris, McIntyre, & Azad, 2021).

A meta-analysis of 31 RCTs indicated that youth receiving CC had a 66% probability of having better mental health outcomes compared to those receiving usual (or noncollaborative) care (Asarnow, Rozenman, Wiblin, & Zeltzer, 2015). In a recent conceptual article on the topic, McClain and colleagues (2021) argue that school psychologists have ideal training for facilitating CC and that engaging with CC may expand the impact of school psychology on reducing health disparities among minoritized and marginalized students and families. We therefore encourage school

psychologists to both advocate for and participate in CC for the youth they serve. Indeed, we believe CC is especially important for informing psychopharmacological or medication-based interventions provided outside of schools. The empirical support for the use of medications in treating psychiatric disorders, such as ADHD, anxiety, and depression, is substantial (e.g., Southammakosane & Schmitz, 2015). However, many RCTs indicate that a combination of medication and psychosocial treatments provide the best outcomes (e.g., Foster & Mohler-Kuo, 2018; Sanchez et al., 2019). Although school psychologists are not providers of medical interventions, we are ideal providers and facilitators of school-based and cross-setting psychosocial interventions. CC therefore provides an actional means by which we can expand the scope of our practice while simultaneously helping to optimize the reach of youth mental health interventions from providers outside of schools.

Conclusion

In closing, we hope the brief introductions to these critical issues (highlighted above) might inspire students and the next generation of school psychologists to keep pushing forward and advancing the scope of our practice to support youth's social-emotional, behavioral, and mental health in schools. Collectively, we are optimistic about the potential of our field to help schools become "nurturing environments" that not only reduce problems but also promote human well-being (cf. Biglan, Flay, Embry, & Sandler, 2012; Smith & Bradshaw, 2017). We believe the movements toward EBP, RTI, MTSS, integrated supports (PBIS + SEL), and more efficient CC have helped school psychologists make a meaningful mark on the youth mental health landscape. Yet we are not Pollyannaish about the challenges we continue to face when engaging in school mental health services. Indeed, we acknowledge that there are real, complex, and persistent barriers to overcome in order for school psychology to realize its potential as a key player in the youth mental health ecosystem. We are confident, however, that taking a problem-solving approach to such challenges will eventually result in their resolution.

Discussion Questions and Activities

1. Ask a teacher to describe some of the current social–emotional, behavioral, or mental health challenges that are affecting children and youth in school settings. Consider how the problems described fit within the most prevalent categories and trends of youth mental health problems discussed in this chapter.
2. What are *jingle–jangle fallacies*, and why are they an important consideration when working to promote youth’s social–emotional well-being in schools?
3. What does recent evidence indicate about how often youth receive mental health services in schools compared to other settings? Discuss how these trends relate to the concept of CC and how school psychologists can best work with other professionals to support youth’s mental health across settings.
4. Brainstorm different examples of how *integrated supports* (PBIS + SEL) could be implemented as part of comprehensive school mental health programming. Specifically, what might integrated supports look like at Tier 1, Tier 2, and Tier 3?
5. Interview practicing school psychologists from two different districts (if possible) about the role they play in addressing students’ mental health and social–emotional issues. Do they participate in a multi-tiered approach to supporting mental health in schools? What evidence-based interventions do they personally employ? Do they use a data-driven problem-solving model to support implementation?

Chapter 11



Consultation, Effective Implementation, and Facilitation of Systems Change

In earlier chapters of this book, we mapped our vision for the practice of school psychology, with a focus on the roles that we believe school psychologists should pursue. Thus far, we provided an overview of a data-driven problem-solving approach to defining problems, assessing problems, and linking these activities to the provision of evidence-based prevention and intervention services. In this chapter, we address the manner in which school psychologists work with others—via consultation, coaching, and collaboration—to support the implementation of evidence-based practices (EBPs), and also what role school psychologists might play in helping school systems to evolve in healthy ways through systems change.

We start by briefly describing the role of consultation, coaching, and collaboration as it relates to school psychology as a problem-solving endeavor. Next, we provide an overview of implementation science, which is the study of how to effectively promote and sustain the adoption of EBPs in everyday practice settings. When school psychologists work with others via consultation, coaching, and collaboration, they are often doing so in order to facilitate the use of EBPs to support individual or groups of students, often

including classrooms and whole schools. Thus, it is important for school psychologists to understand the science behind the promotion and adoption of EBPs. Since EBPs are implemented with the larger context of schools as organizational systems, we also discuss the systems-change literature and its relevance to school psychology. Emphasis is placed on viewing schools as organizational systems and addressing levels of organizational performance and needs within these systems. Drawing from lessons learned from previous attempts at systems change, as well as from best practices in the literature on this topic, we describe important components and stages of successful systems-level change and implementation of EBPs in school settings. We end this chapter with a summary of the school psychologist's role in these endeavors.

Consultation, Collaboration, and Coaching

School psychologists do not apply their skills as problem solvers in isolation or within a vacuum. In order for school psychologists to be successful problem solvers, they must be able to effectively collaborate and consult with parents, teachers, administrators, and other individuals who work directly with students (e.g., other professional service providers, paraprofessionals, and community volunteers). Furthermore, the use of a collaborative consultative problem-solving process is an integral part of the response to intervention (RTI) and multi-tiered systems of support (MTSS) models of service delivery, as this process is applied at the level of the larger system (e.g., school or district) and the smaller system (e.g., grade level, classroom, or group), as well as the individual child. In this section, we provide a brief description of consultation and its importance to the provision of school psychology as a problem-solving endeavor. We also connect the dots regarding how consultation relates to collaboration and coaching, which are sometimes used as synonyms for consultation, but that might be better understood as complements to consultation.

Many models of consultation have been described within the literature, and among these some of the major models include *mental health consultation*, *behavioral consultation* (also referred to as *problem-solving consultation*), and *organizational development consultation* (for more information regarding these approaches to consultation, see Dougherty, 2014; Erchul & Martens, 2010; Erchul & Young, 2014; Kratochwill, Altschaeffl, & Bice-Urbach, 2014; Newman & Rosenfield, 2018; Rosenfield, 2013, 2014). Despite various differences noted across models of consultation, all emphasize the consultant's expertise in problem solving within a triadic relationship. Within school-based applications, this triadic relationship includes the *consultant* (i.e., school psychologist or other professional with problem-solving expertise), *consultee* (i.e., teacher or

parent), and *client* (e.g., individual or group of students; Kratochwill et al., 2014). When consultation occurs within an RTI or MTSS framework, the targeted outcome may be at an individual, small-group, large-group, or whole-school level, and the focus can be on primary, selective, or indicated prevention.

Collaboration is an important component of any effective consultation model. In short, *collaboration* refers to the process of working with others for the purposes of accomplishing a shared goal. Effective collaboration stems from a consultation relationship in which the consultee and consultant are partners in the process, with the partnership being goal oriented and based on mutual respect and trust (see Eckert, Russo, & Hier, 2014). Thus, a collaborative consultative problem-solving process can be defined as involving two or more individuals who are working together to apply the problem-solving process (as described in [Chapter 3](#)) to improve outcomes for students. In addition, because consultation is a process that involves a relationship between the consultant and consultee, interpersonal interaction and communication skills play a key role in its effectiveness (Eckert et al., 2014; Erchul & Young, 2014; Kratochwill et al., 2014; Newman & Rosenfield, 2018). Effective consultants have good interpersonal communication skills, self- and other-awareness related to diversity and equity issues, and effective basic helping skills, including the ability to listen, ask open-ended questions, reflect on what they hear, and summarize information without judgment (Eckert et al., 2014; Erchul & Young, 2014).

Typically, consultation is viewed as a *voluntary, indirect* service, wherein the consultant works with the consultee (e.g., teacher or parent), and the consultee then implements new practices with the child, classroom, or school. Thus, the consultant's service to the child is indirect because the consultant is not the person implementing the new practices. Beyond simple triadic consultative relationships involving the consultant–consultee–child, the problem-solving consultation process can also be applied to groups of teachers, administrators, or teams of individuals (Forman & Crystal, 2015; Kratochwill et al., 2014). One touted advantage of the indirect nature of

consultation is that the consultant's expertise has the potential to expand the reach of services to more students than is the case in a traditional service delivery model, wherein the provider offers one-on-one services directly to the client. Another advantage of consultation is that consultees can learn new skills that they can use with future students presenting with similar problems. Of course, this does assume that the consultee is able to generalize the use of a problem-solving process to improve outcomes for other students. Given that this may not always be the case, some specific consultation models include more direct approaches to implementation, as we discuss below (e.g., Watson & Sterling-Turner, 2008).

More directive models of consultation (e.g., Watson & Sterling-Turner, 2008), which are often referred to as *coaching* (Denton & Hasbrouck, 2009; Erchul, 2015), have been developed in efforts to support the implementation of EBPs and improve intervention effectiveness in both the short and long term. The practice of coaching is not new to education, but grew in the 1970s and 1980s from a recognized need for more ongoing forms of professional development to support teachers in improving their instructional practices (Denton & Hasbrouck, 2009). Like traditional consultation, coaching involves a collaborative problem-solving approach that is designed to improve the quality of interventions received by students. However, coaching emphasizes a more directive approach to monitoring and facilitating the integrity with which an EBP is implemented (Denton & Hasbrouck, 2009; Erchul, 2015). There are some other important distinctions to note between coaching models and traditional consultation. According to Erchul:

Coaching is an established professional development activity, consultation is not; voluntary participation (i.e., choice) and confidentiality of communication are commonly assumed in consultation but not coaching; and there is a built-in supervisory, hierarchical difference in some coaching approaches. (p. 76)

Coaching has been used within an RTI or MTSS framework to provide a more directive approach to consultation, as it places an emphasis on active

components of skill development, such as modeling, role play, and performance feedback (e.g., Reddy, Dudek, & Lewa, 2017; Reddy et al., 2019; Schultz, Arora, & Mautone, 2015; Stormont, Reinke, & Herman, 2011). One interesting aspect of this more directive approach is that coaching elements align with research showing that more active consultation components (i.e., modeling, role play, and performance feedback) help to promote *treatment integrity*, which is defined as the degree to which interventions are implemented as planned (Gresham, 2009). In one study, for example, teacher implementation of culturally and contextually relevant classwide management strategies improved with self-monitoring of implementation, and improved somewhat further with performance feedback regarding intervention fidelity, with some evidence showing a relationship between implementation of the classwide plan and increased student academic engagement and decreased disruptive behavior (Fallon, Collier-Meek, Maggin, Sanetti, & Johnson, 2015).

In order for interventions derived through consultative problem solving to be effective and improve student outcomes, it is important that teachers are able to implement interventions with adequate fidelity (or treatment integrity), yet research has shown that teachers do not generally administer interventions with adequate levels of integrity (Noell, Volz, Henderson, & Williams, 2017). Moreover, research suggests intervention integrity can vary on several dimensions, including (1) *content* (i.e., what intervention components were implemented), (2) *quality* (i.e., how well intervention components were implemented), (3) *quantity* (i.e., how much or what dosage of the intervention was implemented), and (4) *process* (i.e., in what way intervention components were delivered; see Sanetti & Kratochwill, 2009, for further explanation of these dimensions).

Low levels of treatment fidelity may result from various barriers (e.g., issues with match of intervention to the context, resources, implementer skills, or motivation; Collier-Meek, Sanetti, Levin, Kratochwill, & Boyle, 2019)—active consultation components or supports (e.g., role playing, participant modeling) can improve teachers' fidelity of implementation,

particularly when these supports are aligned with specific barriers (Collier-Meek et al., 2019). For instance, if an intervention strategy is not well matched in terms of its compatibility or fit with a particular context, then intervention planning between the consultant and consultee can focus on revising intervention steps to address anticipated barriers (Collier-Meek et al., 2019). Other potential implementation barriers that might be targeted through consultation include (1) *increasing implementer (consultee) skill* via direct training, participant modeling, and role play; (2) *increasing implementer (consultee) motivation and commitment* to delivering the intervention with integrity through motivational consultation (i.e., an interviewing strategy that focuses on communicating empathy and reinforcing statements from the consultee that show a willingness, need, or commitment to change/improve the situation); and (3) *increasing consultee awareness* of the relationship between the consultee's beliefs and patterns of behavior related to intervention implementation events (for more information on consultation strategies to support implementation, see Collier-Meek et al., 2019; Reinke, Herman, & Sprick, 2011; Sanetti & Collier-Meek, 2019).

The need for improvements in how we can better support teachers in implementing EBPs via consultation, collaboration, and coaching has received attention in the literature within recent years, and multiple ecological factors have been shown to affect the implementation process (e.g., Durlak & DuPre, 2008). The study of intervention implementation, deemed *implementation science*, is an important topic for school psychologists, as it informs how we can improve the adoption, use, adaptation, and fit of EBPs—including collaborative consultation and coaching—to optimize their efficiency and effectiveness in school settings (e.g., Forman et al., 2013). Thus, our next section provides an overview of how implementation science informs our practice.

Implementation Science

According to the APA policy statement on EBP (American Psychological Association Presidential Task Force on Evidence-Based Practice, 2006), EBP involves integration of the best available evidence in conjunction with clinical expertise and decision making, with consideration of the unique context of client characteristics, culture, and preferences. In school psychology, the problem-solving process (as discussed in [Chapter 3](#)) provides a framework for decision making relevant to intervention selection that is guided by a specific line of questioning (i.e., What is the problem? Why is it happening? What can we do to solve it? Did the plan work?). When determining what intervention strategies would be appropriate for various individuals or groups, we noted in [Chapter 3](#) that intervention strategies should be selected based on their functional relevance to the problem, contextual fit, and likelihood of success with consideration of strategies that are supported by empirical evidence.

The gap between what we know is an EBP and what is actually being implemented in schools is both wide and well documented (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Stormont et al., 2011). We know, for example, that in-service training or information dissemination alone is insufficient for promoting the implementation of effective interventions (Fixsen et al., 2005). We also know that the majority of teachers are unaware of EBPs for children with emotional and behavioral problems (Stormont et al., 2011). In addition, there are discrepancies between the evidence base and school psychology practitioners' reported use of EBPs (Hicks, Shahidullah, Carlson, & Palejwala, 2014), though trends indicate that training in EBP competencies are improving in school psychology training programs (Reddy, Forman, Stoiber, & Gonzalez, 2017). In general, difficulties noted in the dissemination and use of EBPs in applied settings has been long-standing and noted in school settings (e.g., Detrich & Lewis,

2013; Fuchs, Fuchs, Harris, & Roberts, 1996; Scheeler, Budin, & Markelz, 2016), as well as in the delivery of mental health services to children and youth more broadly (e.g., Garland et al., 2013).

When considering gaps between research and practice, we can look toward lessons learned in attempts to import empirically supported best practices into applied settings. One seminal historical example is that of a study conducted by Fuchs and colleagues (1996) that trained schools to employ mainstream assistance teams (MATs) to support students experiencing learning problems. Training and ongoing support was provided to 120 general educators and 30 special educators, school psychologists, and guidance counselors over several years, resulting in evidence showing that the MATs successfully improved outcomes for children and could be run independently by school staff. Despite these initially positive results, MATs were not sustained when external supports were removed, with nobody using MATs at the 1-year follow-up (Fuchs et al., 1996).

Other research teams have collaborated in the development of treatment models or EBPs that, despite initial failures at attempts to replicate, achieved successful replication and demonstrated sustainability and improvement of the EBP and implementation fidelity over time (e.g., Fixsen & Blase, 2019; Horner, Sugai, & Fixsen, 2017). For example, the Teaching-Family Model is an EBP that began as a family-style group home (called Achievement Place) in 1967, and it eventually became one of three model evidence-based programs that was replicated and went to scale in 59 sites over the course of 50 years (see Fixsen & Blase, 2019). Reflecting on their over half-a-century-long research on the Teaching-Family Model, Fixsen and Blase identified *active implementation frameworks* (AIFs) that were present in their development and implementation of this program—which allowed them to eventually bring it to scale. They also concluded that many lessons can be learned from failures, noting that “when something does not work as intended, it is another data point” (Fixsen & Blase, 2019, p. 207). The six AIFs noted by these authors include:

1. *Usable interventions.* The EBP or intervention must be something that is operationally defined, with a clear description of the philosophy, values, and principles underlying the program (to provide guidance in decision making), as well as core functional components or activities associated with the EBP and the target populations. In addition, the EBP must be something doable with integrity in the context in which it will be implemented (for further description of the components of usable EBPs, see Fixsen & Blase, 2019; Fixsen, Blase, Metz, & Van Dyke, 2013).

2. *Implementation teams.* Such teams include individuals skilled at implementation of the EBP and also skilled at organizational change.

3. *Implementation drivers.* Drivers refer to processes and methods that support the development of competencies related to EBP implementation (e.g., staff recruitment, training, coaching, assessment of fidelity of implementation, and performance feedback), needed organizational changes (e.g., a process for data-driven decision making that includes mechanisms for regular feedback from staff, stakeholders, and recipients), and involvement of leadership to support implementation (e.g., identify and address contextual issues and challenges related to implementation in consultation and collaboration with staff and stakeholders; see Fixsen et al., 2015, for more information on implementation drivers).

4. *Implementation stages.* Stages, steps, or phases of the implementation process (e.g., preimplementation or creating readiness, initial implementation, implementation, and sustainability) that help structure the rollout of a new intervention within a new setting, getting the implementation teams from point A to point Z.

5. *Improvement cycles.* Data-driven problem-solving processes that occur in a continuous or cyclical manner to improve implementation methods and intervention outcomes.

6. *Systemic change*. Protocols that include alignment and integration of policies, practices, and resources to optimize implementation success and positive intervention outcomes.

These six AIFs have benefited others working toward systemic change in schools. For example, positive behavioral interventions and supports, which is an approach that has been successful in establishing an MTSS framework for promoting schoolwide, classroom, and individual supports to improve behavioral and educational outcomes for all students (Horner, Sugai, & Anderson, 2010), has successfully replicated and benefited from lessons learned by the Teaching-Family Model's failures and successes (Pinkelman & Horner, 2019).

Lessons learned from failures to produce sustained adoption of EBPs in schools (e.g., Fuchs et al., 1996) and youth mental health settings (e.g., Weisz, Donenberg, Han, & Weiss, 1995), as well as notable successes (e.g., Fixsen & Blase, 2019; Horner et al., 2010), point to a critical need to understand how ecological, systemic, and organizational factors affect implementation (Castillo & Curtis, 2014; Durlak & DuPre, 2008; Forman et al., 2013). Furthering this need for understanding what factors affect implementation is the recognition that teachers consistently fail to deliver evidence-based interventions with integrity, even when consultation involves direct training (Collier-Meek et al., 2019; Fallon et al., 2015; Kratochwill et al., 2014; Noell et al., 2017). As the field has grappled with how to bridge the gap between science and practice, educational reform efforts have moved away from simply establishing and advocating for the use of EBPs, moving toward understanding how to build the capacity of school systems to adopt and sustain implementation of such practices (e.g., Bertram, Blase, Shern, Shea, & Fixsen, 2011; Durlak & DuPre, 2008; Forman et al., 2013; Moir, 2018).

The link between implementation and outcomes has been well documented in a meta-analysis of over 500 studies showing “credible and extensive empirical evidence that the level of implementation affects

program outcomes” (Durlak & DuPre, 2008, p. 334). Beyond this relationship, researchers have looked further to study what factors influence the implementation process. In their review of studies containing data (qualitative or quantitative) on factors influencing the implementation process, Durlak and DuPre (2008) identified variables that influence implementation across five categories—namely, “innovations, providers, communities, the prevention delivery system (i.e., features related to organizational capacity) and the prevention support system (i.e., training and technical assistance)” (p. 335). Other reviews and commentaries have noted the importance of leadership, the use of a data-based decision-making process, and the need to address five areas relevant to implementation: selection of interventions based on efficacy and fit, building support from stakeholders, developing competency of the implementers of the innovation, building capacity for a supportive organizational context, and facilitation from external systems (Forman, 2015; Forman & Crystal, 2015). Policy papers (e.g., Bertram et al., 2011), literature reviews (e.g., Fixsen et al., 2005; Forman, 2015), and conceptual papers (e.g., Bertram, Blase, & Fixsen, 2015; Meyers, Durlak, & Wandersman, 2012) have also identified and refined the scientific language and frameworks of what we know regarding implementation. As a full review of this area is beyond what we can provide in the space available in this book, what follows for the remainder of this chapter are highlights of some of the key factors found to be related to implementation. Given that implementation science is an extremely important area relevant to the prevention and provision of EBPs to improve socially significant outcomes for children, we encourage readers to go beyond this chapter and explore this literature further. We suggest that an especially useful follow-up to this chapter would be reading Sanetti and Collier-Meek’s (2019) overview article aimed at increasing implementation science literacy in school psychology.

Key Factors Affecting Intervention Implementation

This section overviews several key implementation factors: (1) characteristics of the intervention/innovation/EBP, (2) implementer (or provider) characteristics and competencies, (3) community factors, (4) organizational capacity, (5) training and technical assistance, and (6) implementation process. We focus on these specific factors because we believe they are likely to make pivotal contributions to the success (or failure) of most school-based interventions, no matter what the outcome targets of the intervention are (i.e., academic, behavioral, social–emotional, or mental health) and no matter at what level of service delivery the intervention is implemented (i.e., universal, targeted, or intensive).

Characteristics of the Intervention/Innovation/EBP

According to Fixsen and Blase (2019), “the first task with any program or practice is to get the science right to ensure an effective, useful, and usable intervention” (p. 191). This would include an operational definition (i.e., clear, precise description) of the EBP, noting its core components and principles that are foundational (Fixsen & Blase, 2019). Additional aspects of an EBP that have been found to be related to effective implementation include its “adaptability (flexibility) and compatibility (contextual appropriateness, fit, match, congruence)” (Durlak & DuPre, 2008, p. 336) relative to the particular practice context in which it will be implemented and to its intended target (i.e., who the EBP is intended to benefit). EBPs that are not rigid and allow some flexibility to be adapted are more likely to be adopted, as are innovations that align with an organization’s existing practices and priorities (Durlak & DuPre, 2008; Forman, 2015; Forman & Crystal, 2015; Rogers, 2003). Modifying, adapting, or even reinventing an

innovation is an important part of the process through which innovations are adopted (Rogers, 2003). Sometimes, adaptations or modifications can be driven by aspects of the intervention, implementer, or organization (Forman, 2015). For example, less specific interventions might be easier to adapt if there are many possible ways to apply the innovation, whereas more complicated interventions are more likely to be reinvented due to a lack of understanding regarding how specific intervention components could have been adapted or modified. In addition, implementers may adapt interventions to address different client needs, such as making cognitive-behavioral therapy or mindfulness training relevant to children, and organizations may adapt EBPs to fit within organizational missions or to be more appealing to stakeholders (Forman, 2015).

Though it may seem that adaptation, modification, or reinvention of an intervention is contrary to or at odds with implementation fidelity, researchers have found that innovation adaptation and fidelity are both necessary and complementary (Webster-Stratton, Reinke, Herman, & Newcomer, 2011). For example, Webster-Stratton and colleagues (2011) noted that EBPs (such as the Incredible Years Teacher Classroom Management program) should have built-in and predetermined options for adaptation that consider the identification of necessary or core components of the EBP. These authors also suggested differentiation and scaffolding of training, professional development that is matched to teacher training/skills/experience level, and direct coaching within the implementation context (i.e., the classroom) that supports teachers in understanding the core components of the intervention, as well as planning for adaptations (Webster-Stratton et al., 2011). In many ways, this evolving approach to implementation recognizes that translating an empirically validated intervention (i.e., one supported in a research context) into a practice setting involves the process of generalization, which we can facilitate by relying on the strong conceptual foundation and practical strategies drawn from the field of applied behavior analysis (Baer, Wolf, & Risley, 1968; Stokes & Baer, 1977). In referencing the importance of

generalization, Stokes and Baer noted “a therapeutic behavioral change, to be effective, often (not always) must occur over time, persons, and settings, and the effects of the change sometimes should spread to a variety of related behaviors” (p. 350). By positing intervention implementation as a worthy target of “behavioral change” for consultees (e.g., parents, teachers, administrations), generalization of implementation can be seen as analogous to the processes of adaptation, modification, and reinvention described above—with the ultimate goal of using the intervention (or exhibiting the behavioral change) in as many appropriate situations as possible.

Implementer Characteristics and Competencies

Some characteristics of implementers (or providers) that are related to effective implementation include perceptions providers hold with respect to the need for and potential benefits of the intervention, as well as their confidence in their ability and skills related to implementing the intervention with fidelity (Durlak & DuPre, 2008; Forman, 2015). Direct skills training and technical assistance via consultation and coaching (as discussed earlier in this chapter) are two strategies for improving implementers’ competencies in these areas.

The social context can also influence a potential implementer’s choice to utilize an innovation (Rogers, 2003), with other stakeholders (e.g., parents, colleagues) and individuals with whom the implementer might communicate regularly (e.g., friends, family) having some influence over the perceptions of potential implementers. For example, *key opinion leaders* are individuals within an organization who are perceived as having some level of social power, as others may go to them for advice or their opinions may influence others, despite the fact that they hold no formal administrative roles (Rogers, 2003). In school settings, for example, some teachers’ opinions might be valued more highly than others, due to their perceived status from having taught longer, having been successful in the classroom, or being well

liked by their colleagues. In addition, school support staff (e.g., administrative assistants) may be influential within school systems.

Community Factors

Community-level factors that might enhance or hinder the implementation process include the mechanisms available for dissemination of research on EBPs, politics, and policy (Durlak & DuPre, 2008). For example, information regarding effective prevention strategies are disseminated via local or government websites or other mechanisms and how this information is made available can influence what EBPs are selected. In addition, funding is necessary to support effective implementation, but is insufficient on its own to promote implementation. Also, politics and policies can help or hinder the process of implementation of EBPs. As aptly noted by Detrich, Keyworth, and States (2016):

Well-constructed evidence-informed policy has the potential to have an impact beyond the capabilities of either policy or evidence alone. Policy without evidence is just a guess and the probability of benefit is likely to be low. Evidence without policy is information that is unlikely to have impact as it has limited reach ... [and].... Policies must actually be implemented well if they are to have impact. (pp. 121–122)

Furthermore, with respect to policies that are set for mental health care services, it is sometimes the case that policies are driven by insurance programs that base reimbursement on categories of care or time spent providing services, without regard for evidence of effectiveness for those services. This situation leaves “no real policy or fiscal incentives for financially strapped service organizations or individual practitioners to devote scarce resources to building skills in EBPs, or taking all the steps needed to ensure that the EBPs are delivered with high fidelity” (Weisz, Ugueto, Cheron, & Herren, 2013, p. 280). So, policies can serve as incentives *or* disincentives for devoting time and resources to the implementation of

EBPs, thus making the study of the relationship between public policy and implementation an important area for future research (Weisz et al., 2013).

Organizational Capacity

Variables related to the prevention delivery system or organizational capacity of the system to implement change were identified in a meta-analysis to fit within three broad categories (Durlak & DuPre, 2008):

1. *General organizational features* (e.g., positive organizational climate, organizational norms supporting openness to change/innovation, integration of innovation into existing practices, shared vision and staff buy-in into the innovation or EBP).
2. *Specific organizational processes or practices* (e.g., shared decision making and collaboration regarding what will be implemented, coordination with other agencies, effective mechanisms for communication).
3. *Specific staffing issues* (e.g., strong leadership, administrative support during implementation).

Similarly, according to Forman and Crystal (2015), a supportive organizational structure for adopting a new practice would consider the infrastructure needed for implementation, as well as administrative procedures, policies, and data-based decision-making procedures and systems, including a format, time, and resources for planning and meeting. In addition to the importance of formal leaders, the change process may also involve a leader whose role is to champion the change process or innovation. According to Durlak and DuPre (2008), “Program champions, particularly those who are highly placed in an organization and have the respect of other staff, can do much to help orchestrate an innovation through the entire diffusion process from adoption to sustainability” (p. 338).

Training and Technical Assistance

Another category identified as important to the implementation of EBPs is the training provided to ensure that providers/implementers are proficient in being able to carry out the EBP, as well as the technical assistance available to support providers during implementation (Durlak & DuPre, 2008). Interestingly, these two factors were identified as having the most empirical support, yet they were also viewed as needing to occur following (not before) the necessary infrastructure and resources (i.e., time, staffing, administrative support, funding) that were in place, as well as after the organization and stakeholders were favorable toward implementation (e.g., having a common vision, shared decision-making process, leadership and support in place; Durlak & DuPre, 2008). With respect to the type and format of training, research suggests providers who are acquiring new skills need training that includes active components (e.g., modeling, role playing, performance feedback; Durlak & DuPre, 2008).

Implementation Process

Implementation, as a construct, has been defined in various ways, though as we discussed above, we can see common components across models. To summarize, and as aptly noted by Forman (2015), these common elements include:

1. Some form of *innovation* (i.e., EBP, prevention or intervention strategy).
2. A *change agent* (i.e., person or group focused on facilitating the process of bringing the EBP into practice, such as the school psychologist or a student support team).
3. Some *process of communication* between the change agent(s) and individuals who do not know about the EBP/innovation.
4. The *social system* (i.e., system [school], subsystems [grade-level teams], and supra-systems [school district] that reciprocally

influence one another in the context in which the implementation process takes place).

5. The *implementer(s)*, including the *primary implementer(s)* (i.e., person[s] who will deliver the innovation/EBP to the clients, such as the teacher intervening with a target group of students) and *secondary implementers* (i.e., persons who provide support for the primary implementer, such as the principal or paraprofessionals who support the teacher's efforts).
6. The *stakeholders* (i.e., those who have an interest in the innovation or EBP, such as parents).

Implementation science, as we discussed above, involves the study of how these components of implementation interact and how we can best facilitate the dissemination, adoption, and sustained use of EBPs/innovations in practice—in other words, how the process of *change* (i.e., implementing innovations) unfolds and how we can improve this process to increase the likelihood that EBPs/innovations are adopted and sustained (Forman, 2015; Moir, 2018). As we considered some of the notable factors that may facilitate or hinder the implementation of EBPs in school settings, you might be wondering where to begin or how to move forward as a change agent or to advocate for implementation of EBPs. In addition to important components or factors of the implementation process discussed above, researchers have talked about the change process in terms of *phases* or *stages* of change, though it is important to note that there is no agreed-upon stepwise process for doing so. In this section, we highlight possible steps and phases of this change process using the quality implementation framework (QIF) derived from a synthesis of the literature by Meyers and colleagues (2012). In their research synthesis, they identified a temporal sequencing of steps involved in quality implementation and created the QIF as a way to synthesize and illustrate the phases of implementation and the steps within each phase. As described by Meyers and colleagues, there are four phases of the implementation process:

- Phase 1: Initial considerations regarding host setting.
- Phase 2: Creating a structure for implementation.
- Phase 3: Ongoing structure once implementation begins.
- Phase 4: Improving future applications.

Meyers and colleagues (2012) noted that failing to sufficiently address the initial steps (e.g., staff buy-in or sufficient administrative support) could result in failure to adopt EBPs. Interestingly, they also noted a lack of administrative support was found in every case of failed implementation in their review pointing to the importance of this step in the implementation process. It is important to note that although Meyers and colleagues present steps in a sequenced, numerical order, the implementation process is not rigid but rather is dynamic in nature and some steps may need to be revisited at a later time (e.g., sometimes it is necessary to reestablish buy-in from stakeholders, gather more resources, or retrain staff). Furthermore, in some cases, implementation steps might be skipped if evidence demonstrates they are already in place (e.g., buy-in or capacity to conduct the EBP) or other steps might occur at the same time to optimize efficiency.

Given that the implementation process is dynamic, in some cases, phases—and steps within and across phases—might overlap. For example, although obtaining buy-in and fostering a supportive climate are included in the first phase of implementation, Meyers and colleagues (2012) noted that these steps were also sometimes included as part of Phase 2 (where the focus was on enacting policies to remove implementation barriers) or within Phase 3 (related to the maintenance of ongoing support via monitoring policies and evaluating their benefits). They further note that the complexities of the host setting and the varying reasons and routes of implementation are factors that sometimes result in modifications in implementation. For example, reasons for becoming involved in the implementation of an EBP can range from actual perceived need for the intervention to political, administrative, or financial pressures, each driving the implementation process in a different way. When used flexibly, their

guidelines provide a reference that organizes the process of implementation in a stepwise sequence across phases that increase the likelihood of successful implementation.

Focus on Systems Change and Viewing Schools as Dynamic Systems

Although implementation science is an important step in the effective translation of research into practice in school settings, it is limited in that the focus of change is still on the movement of empirically supported interventions from the research setting into the school setting. Though this process considers how the system affects adoption and sustained use of EBPs, it is not focused directly on systems change in terms of the healthy evolution of the school as a system. Perhaps this will be the next phase of work that we will see in the future: a focus on how we can facilitate the healthy evolution of school systems, so that they will adapt to the changing needs of students and will self-sustain a process of data-driven prevention and problem solving to promote student outcomes. In this section of the chapter, we discuss schools as *dynamic systems* and how awareness of the systems-change literature can inform school psychology.

Change as a Unifying Feature of School Systems

According to an article on the National Education Association website (Litvinov, Alvarez, Long, & Walker, 2018), the “demands and pressures on our schools are growing” and among the top challenges noted were education funding, keeping schools safe, rising teacher and student stress and mental health issues (e.g., anxiety), classroom management and discipline, and rapidly changing technological advances. The challenges described in this article exemplify how one unifying feature of any system, including schools, is *change*. Although “change is not a new occurrence in the world around us; what is new is the accelerated pace and intensity of change” within contemporary school systems (Madalinska-Michalak, O’Doherty, & Flores, 2018, p. 567).

Just as the pressures facing managers in business settings (e.g., global competition, increasingly demanding customers, and technological advances) are in a constant state of flux, the pressures and challenges facing school systems are moving targets. Schools, like businesses, are evolving, living systems. Thus, they are affected by and reciprocally influence the contexts in which they exist. When contextual factors are changing at a rapid pace, pressures on the system to adapt are great. This situation exists because organizations respond to their external environments in an attempt to seek equilibrium. In the business world, “a processing system (organization) will either adapt to its environment, especially its receiving system (market), or cease to exist” (Rummler & Brache, 2013, p. 9). In a similar vein, “organizational change and strategic planning are natural, necessary, and ongoing characteristics of healthy, evolving, and effective schools” (Knoff, 2014, p. 35).

It is important to note that for schools, as for any evolving system, “adaptation is a process, not an event” (Rummler & Brache, 2013, p. 10). Systems that are healthy continually “demonstrate the capacity to analyze problems and to solve them in a manner that facilitates the attainment of their goals” (Castillo & Curtis, 2014, p. 14). Thus, the concept of *lasting change* is an oxymoron. Problems occur when the focus of change is solely on an *innovation* (e.g., EBP, piecemeal solution) rather than on the *healthy evolution of the system* (e.g., Grimes & Tilly, 1996). This distinction—emphasizing innovation in the service of healthy organizational evolution—is paramount to the development of school systems that are responsive to the changing contextual demands in modern society (e.g., budget cuts, changing student demographics, policy changes, changes in curriculum, administrative changes). School psychologists who are involved in systemic reform efforts need to keep abreast of the many demands and challenges that affect school systems. They also need to have knowledge and skills in a problem-solving approach to systems change.

As the river parable described in [Chapter 3](#) illustrates, we must consider primary and selective prevention if we are to adequately address the

continuum of students' needs. Current practices consistent with RTI and MTSS emphasize the need to consider prevention of problems at primary, selective, and indicated levels (e.g., Forman, Lubin, & Trippree, 2014; McNamara, 2014; Ysseldyke & Reschly, 2014). With this increased focus on multiple levels of intervention, school psychologists play an increasingly integral role in the systems-change process and, therefore, should build competencies in these areas. Preparation and practice in systems-level influence and change are included in NASP's Professional Standards (2020b), which include the *Standards for Graduate Preparation of School Psychologists* and the *Model for Comprehensive and Integrated School Psychological Services*. That said, knowledge and skills for understanding and changing systems has been stated as a key training domain in school psychology for at least the past 15 years, also appearing in NASP's *School Psychology: A Blueprint for Training and Practice III* (Ysseldyke et al., 2006), which was a forerunner to the current professional standards. It is important to note, however, that the strong emphasis on preparation in systems change is still relatively new within our field, and thus many current school psychologists may not have had training in this area—or report having received most of their training in this area from conferences or in-service formats (McNamara, 2014). Furthermore, only a small percentage of school psychologists (6%) report that they engage in systems-level consultation (see Castillo & Curtis, 2014; Castillo et al., 2012), suggesting that this is still a less common area of practice. However, with increasing recognition of the importance of training school psychologists in methods of implementation science (as described above), particularly with regard to the delivery of evidence-based mental health practices, we are hopeful that competencies in this area will continue to grow (Shernoff et al., 2017).

One important prerequisite for serving in the role of a systems-change agent is a basic understanding of systems and systems theory. According to Castillo and Curtis (2014), *general systems theory* provides the theoretical foundation for systems-level intervention and organizational development. Early applications of general systems theory focused primarily on military

and industrial settings, and extensions were made to behavioral sciences in the 1950s and to schools in the early 1960s (Curtis, Castillo, & Cohen, 2008).

A *system* can be defined as “an orderly combination of parts that interact to produce a desired outcome or product” (Castillo & Curtis, 2014, p. 13). For example, at a very small level, a human system might include two or more individuals (e.g., school psychologist and a teacher) interacting to produce an outcome (e.g., improvement in student learning). In contrast to mechanical systems, which are inorganic and more static or fixed, schools are organic or living systems. One manner in which living systems differ from inert systems is the way in which these systems are influenced by and, in turn, influence their environment and other systems. This *reciprocal influence* among systems and environments is captured in the manner in which some scholars have described child development. Bandura (1978) and Bijou (1993), for example, have suggested that, from a systems or ecological perspective, the child is influenced by and, in turn, influences the environment or system of which the child is a part.

Schools are systems because they house groups of individuals (e.g., teachers, principal, school psychologists, school counselors) who are organized toward producing a definable outcome (e.g., academic achievement of students). Systems theory assumes that everything is *interrelated* and *interdependent*. For instance, the classroom is related to and dependent on its larger system, including the school and school district. These larger systems have an influence on how the systems within them function and react to new practices (Glisson, 2002). Similarly, school building systems are part of larger systems (e.g., a school district) and contain inner systems or “subsystems” (e.g., classrooms, intervention assistance teams, school improvement teams). When change occurs in one aspect of the system (e.g., change in personnel, change in student needs), the wider system is impacted. In a similar fashion, changes in the surrounding contexts or larger systems affect the system, as well as its subsystems. For example, policy changes (e.g., mandated testing for all students) or

catastrophic events (e.g., a student suicide) can affect the system at all levels (e.g., policy, staff, administrator, and student levels).

Learning how various aspects of the system are interconnected and how they work together is one challenge that presents itself in systemic reform efforts (see Castillo & Curtis, 2014, for more information). As we noted in the preceding section, the early application of systems theory to real-world settings focused primarily on industrial and military settings. Thus, the literature on improving performance within business settings is quite extensive. The remainder of this section draws from this literature to describe the important distinction between viewing an organization from a vertical and functional standpoint and viewing it from a horizontal or systems perspective (Rummler & Brache, 2013).

Rummler and Brache (2013) argue that most business managers view their organizations from a fundamentally flawed perspective. More specifically, the typical view of an organization is *vertical* and *functional*, in which separate units within the organization (e.g., research and development, manufacturing, marketing and sales) are depicted as operating independently from one another and vertically via reporting relationships to other entities, such as managers. Within this vertical and functional view of an organization, the structures built around units are referred to by Rummler and Brache as “silos (tall, thick, windowless structures)” (p. 4). A school organization could be seen from a similar structure, wherein grade-level units are separate entities that report vertically to the principal. In high school settings, the units might be organized according to content areas (e.g., science, mathematics, social studies, language arts, music) or grade-level instructional teams. Regardless of how the units are organized, this vertical and functional approach to viewing organizations is limiting because it fails to depict how work flows. Furthermore, it does not illustrate what happens, for whom, or how. When managers or school leaders have this view of an organization, they tend to manage each unit separately (e.g., meeting separately with grade-level teams). This approach can result in a perpetuation of the vertical and functional view and can create competition

across units. Conflict can arise when decisions are made that have implications across units.

In school settings, for example, decisions such as scheduling or additional resource allocation can result in conflict. When units function independent of one another, it is difficult to address these broader, schoolwide issues in a comprehensive manner. For example, a principal who is given additional funding and personnel to address reading at an elementary school must decide how best to utilize those resources. If the units within the school are viewed vertically and functionally independent from one another, then each grade-level unit might make a separate case for the use of these resources, with little integration of information across grades. The result is that the principal must make some hard decisions, and some grade-level units will no doubt be unhappy with the outcome.

An alternative to viewing organizations vertically and functionally is to view them *horizontally* and from a *systems perspective* (Rummler & Brache, 2013). This view considers the flow of work and includes a description of what the organization does and for whom. Furthermore, it allows one to see how the work is done by illustrating the connections between components of the system. Viewing systems in this manner allows one to examine where potential problems might arise in the flow. It also allows managers to adapt or school leaders to change proactively by anticipating its impact on the flow of work within the system. Systems charts can be drawn to illustrate the flow of work for organizational systems, as well as for the subsystems that operate within organizations. As we described earlier in this section, healthy organizations adapt to changing demands. “If an organization survives, it has adapted,” yet “its health is a function of *how well* it has adapted” (Rummler & Brache, 2013, p. 10, original emphasis). Solving organizational performance problems from a systems perspective focuses on examining the connections between an organization’s internal and external ecosystems and how these connections can be understood by examining how three levels of performance (i.e., organizational, process, and job/performer) interact with three performance needs (i.e., goals, design, and management). A discussion

of these interactions is beyond the scope of this chapter, but readers interested in systems-change issues are encouraged to explore this literature further (see Rummeler & Brache, 2013).

School Psychologists as Systems-Level Change Agents

While some school psychologists are hired for the specific purpose of creating systems change, it is more typical that school psychologists are hired to meet the service delivery needs of specific schools within a district. However, the problem-solving and collaborative consultation skills discussed earlier in this chapter can be just as readily and broadly applied to changing systems, as consultation at the student level parallels the process of consultation at the system level. According to Castillo and Curtis (2014), “in order to effectively facilitate system-level change, school psychologists need to call upon three areas of expertise: an understanding of human behavior from a social systems perspective, an ability to use collaborative planning and problem-solving procedures, and a familiarity with principles for organizational change” (p. 12). Therefore, school psychologists need to actively seek knowledge in these areas and understand the underlying principles needed to affect systems change—and this chapter is a first step toward that end.

As we described earlier in this chapter, the work of school psychologists does not occur in a vacuum or in isolation. School psychologists play a pivotal role in school systems. Thus, their work influences and is influenced by the people with whom they consult, as well as the systems in which they work. In [Chapter 1](#), we introduced our vision for school psychology practice. The professional roles we described included data-driven problem solving, assessment, prevention and intervention, systems-level change, and being involved as a consumer and producer of research. These roles are interrelated, and the context in which they occur is living, open, and constantly evolving school systems.

School systems also exist as part of larger systems (e.g., districts, communities) and contain smaller subsystems (e.g., classrooms). These systems are complex and integrally interconnected. They provide the context for our work. School psychologists who are data-driven problem solvers cannot and should not attempt to disconnect the problems they solve from the contexts in which they occur. We believe that school psychologists who possess knowledge and skills in systems change are in a position to play a role in problem-solving efforts designed to facilitate the development of healthy, evolving school systems. Additionally, this chapter emphasized why practicing school psychologists and those who are new to the profession should seek opportunities to develop their knowledge and skills in consultation and implementation science, as we believe that competencies in these areas can only enhance our effectiveness as systems-change agents. We also believe that some of the skills and competencies that are already well developed in school psychologists (e.g., collaborative problem solving, assessment, research, and intervention skills) make them ideal participants in the systems-change process. Ultimately, we are convinced that competencies related to consultation, implementation science, and systems change are increasingly important for the effective practice of school psychology, as both (directly) implementing and (indirectly) supporting others' implementation of EBPs are integral practices for meeting the needs of the children we serve in schools.

Discussion Questions and Activities

1. What is a system? Describe the subsystems that make up the school system, as well as the larger systems of which this system is a part.
2. What are some important qualities of an effective consultant? Interview two to three school psychologists. Ask them whether they provide coaching or consultation and how they go about this role with school personnel. Is their style collaborative in nature?
3. Imagine that the school principal you are working for would like to implement a research-based program to promote social competence. The principal attended a conference and learned of a packaged program that helped a school in another district. The principal wants you to take the lead on the project at your school. Given your awareness of the systems change and implementation science literature, how would you go about this process? Who would you involve in the process? Where would you start? What questions would you have?
4. Find an article in the school-based literature that describes attempts made to produce lasting change or adoption of a process or EBP in a school setting. Was the approach successful or unsuccessful? Critique the article and identify components that were consistent with a systems-change implementation science approach to facilitating lasting change. What would you recommend to improve the process?

Chapter 12



The School Psychologist's Role in Research and Evaluation

As indicated in [Chapter 6](#), most school psychology practitioners do not spend a significant amount of time engaged in research activities. Although research may not be a key role for the majority of practitioners, it is nevertheless important for all school psychologists to have a basic understanding of research methods. Even school psychologists who do not formally conduct research must be savvy consumers of research in order to stay up-to-date on effective practices and to answer questions from parents and teachers regarding best practices in educational and psychological issues. For school psychologists to respond knowledgeably to such questions, they must be able to critically evaluate research-based articles, including methodology and research design. All school psychologists, in addition to being consumers of research, should utilize some aspects of research design methodology to engage in data-based decision making in their everyday practice (e.g., utilize the problem-solving model). It is essential that data-based decision making occur to ensure that students are benefiting from the services they receive.

Of course, some school psychologists conduct formal research studies or participate in supporting others' studies. For those who wish to engage in research, the schools are a prime place to conduct research, particularly

applied research and program evaluation. Although program evaluation has traditionally received little emphasis in school psychology training programs, we believe that well-trained school psychologists have the potential to play an important role in evaluating the impact of educational and mental health programs in schools and related settings. In this era of increasing accountability, it is essential for those employed in educational systems to have knowledge about how to conduct evaluations of their programs and to provide evidence for their continued use to various stakeholders, such as school board members, administrators, and community members. School psychologists who have basic training in program evaluation can provide an important service in this regard. In this chapter, we provide an overview of the different aspects of research and evaluation in the schools. We encourage all school psychologists to use these skills to help improve outcomes for the students, families, and teachers they serve.

School Psychologists as Consumers of Research

School psychologists must be able to understand and critically evaluate research articles so that they can stay abreast of changes in the fields of education and psychology and share this information with parents and teachers as appropriate. With the proliferation of information available online, it is easier and easier to find free resources that claim to report on research outcomes. However, it is important to be cautious when relying on online resources for research-based information, particularly when this information is from a secondary source. Thus, it is important to check the credibility of the online sources and also cross-check primary references when possible. Professional organizations (e.g., NASP, APA) can be reliable online sources of research-based information. However, there are also many sites that present information that looks like it is research based when, in fact, it is not. Increasingly, libraries (e.g., www.library.georgetown.edu/tutorials/research-guides/evaluating-internet-content), government agencies (e.g., <https://nccih.nih.gov/health/webresources>), and others provide information regarding how to evaluate information found online. When conducting general searches online for information, keeping these guidelines in mind can help consumers find reliable resources.

An especially promising trend related to the accessibility of online information is the *open science* movement, which is a collection of practices that aim to make scientific processes more transparent and research findings more accessible to the public (Spellman, Gilbert, & Corker, 2017). Two of the core practices within the open science movement are *open materials* (i.e., free sharing of measures and protocols used in studies) and *open-access articles* (i.e., freely available preprints or postprints of research papers; see Cook, Lloyd, Mellor, Nosek, & Therrien, 2018, for an overview of these

practices). These practices are facilitated by broader open web platforms, such as the Open Science Framework (<https://osf.io>), which provide free space to share open materials and articles, as well as free accounts and search tools to help users access open resources (e.g., the SHARE search engine; <https://share.osf.io>). We are optimistic that the open science movement might eventually help get more free evidence-based resources into the hands of more practicing school psychologists—and so we encourage school psychologists at all levels (faculty/trainers, students, and practitioners) to help push this movement forward. Yet we acknowledge that open science is currently geared largely toward supporting those of us in academia as opposed to those of us in practice.

In terms of scholarly outlets for school psychology research, school psychologists should be familiar with the four primary school psychology journals: *School Psychology Review* (the official NASP journal), *School Psychology* (the official journal of Division 16 of APA; formerly titled *School Psychology Quarterly*), *Psychology in the Schools*, and *Journal of School Psychology* (the official journal of the Society for the Study of School Psychology). Other journals related to school psychology include the *International Journal of School and Educational Psychology* (the official journal of the International School Psychology Association), *Canadian Journal of School Psychology* (the official journal of the Canadian Association of School Psychologists), *Contemporary School Psychology* (the official journal of the California Association of School Psychologists), *School Psychology International*, *Journal of Applied School Psychology* (the official journal of the American Academy of School Psychology), *School Mental Health*, *Journal of Positive Behavior Interventions*, and *Journal of Evidence-Based Practices for Schools*.

In addition to these journals, numerous others are available on topics of interest to school psychologists. These include journals focused on assessment (e.g., *Journal of Psychoeducational Assessment*, *Assessment for Effective Intervention*, *Psychological Assessment*), consultation (e.g., *Journal of Educational and Psychological Consultation*), early intervention (e.g., *Journal*

of *Early Intervention*), single-subject design studies (e.g., *Journal of Applied Behavior Analysis*), and a multitude of applied topics related to mental health issues in children and adolescents (e.g., *Journal of Clinical Child and Adolescent Psychology*, *Evidence-Based Practice in Child and Adolescent Mental Health*, *Journal of the American Academy of Child and Adolescent Psychiatry*). Newsletters published by professional organizations, such as NASP's *Communiqué* and APA Division 16's *The School Psychologist*, also have brief research articles, as well as other articles of interest.

Obviously, it is impossible for school psychologists to subscribe to or read all journals that may be relevant to the field. However, we encourage school psychologists to stay current in the field by subscribing to a journal or two (school psychologists who are members of NASP automatically receive *School Psychology Review*, and those who are members of Division 16 of APA automatically receive *School Psychology*), reading professional newsletters, and making use of information on the websites of professional organizations. Journals and professional organizations are also increasingly making research content available via social media platforms. For example, the *Journal of School Psychology* has “free article Fridays” on their Twitter feed (<https://twitter.com/JofSchoolPsych>), *School Psychology Review* offers “120-second summaries” of recent publications on their YouTube channel (www.youtube.com/c/SchoolPsychologyReview/videos), and NASP regularly shares evidence-based resources for practitioners on its Facebook page (www.facebook.com/nasponline).

Of course, subscribing to a journal is only the first step in keeping up-to-date with developments in the field. Plenty of professionals subscribe to journals but rarely read them. Sometimes this is due to a lack of time to read; other times, though, it may be related to feeling intimidated by the content in research-based articles. We admit that these articles are not always the most scintillating pieces of literature and that evaluating the merits of a research article can be difficult, especially if it has been a long time since one has taken a research methods or statistics course. For this reason, many practitioners may find the move toward distilling and sharing

research on social media to be attractive (see examples mentioned above). Yet we continue to emphasize that reading actual articles is important. It is also important, however, to recognize that not all published articles are of high quality, and that readers need knowledge of how to determine which articles are of high quality. All of the journals mentioned here are peer reviewed (i.e., the research is evaluated by members of the journal's editorial board, who offer opinions regarding the quality of each manuscript)—however, peer review does not mean that the research that appears in these journals is without flaw. In fact, no research study is perfect. Later in this chapter, we provide some guidelines to assist in evaluating research articles, but first we turn to the general types of journal articles school psychologists are likely to read.

Types of Journal Articles

Journals generally contain three types of articles: original research studies, meta-analyses and systematic reviews, and narrative reviews. Each of these is discussed next.

Original Research Studies

Original research studies provide data in an attempt to answer specific research questions. There are numerous types of research studies that vary in their complexity and the stringency of their research methods and designs. Some less complex original research studies involve survey research in which data are analyzed mainly via descriptive statistics (e.g., frequencies, means, and standard deviations). Such studies typically attempt to describe a general population. For example, many of the studies on the roles and functions of school psychologists that were cited in [Chapter 6](#) were survey studies in which the researchers sent survey questionnaires to school psychologists. These surveys contained questions regarding basic demographic information about school psychologists, as well as questions

regarding how much of their time is spent engaged in various professional activities (e.g., assessment, consultation, intervention). Survey research can provide useful information regarding trends and practices in the field of school psychology, but it is less useful in guiding practice because the purpose of survey research is to describe what is currently being done or to evaluate perceptions of what should be done rather than to evaluate what assessment methods or intervention procedures might be the most valid for a certain population.

Correlational studies, which look at the relationships between different variables, are another common type of research. Much of the research on assessment instruments is correlational in nature. For example, when creating a new measure of anxiety, the developers correlate the new measure with existing measures of anxiety: The higher the correlation between these measures, the stronger the relationship and the more confident we can be that the new measure is assessing the same construct as the existing measures. Correlational studies can also be used to obtain information related to possible contributing factors to problems. For example, many studies examine how parent factors (e.g., parenting style, psychopathology, stress) relate to child behavior problems. When high correlations are found between parent factors and child behavior problems, one can say that these two constructs are related (e.g., the more behavior problems the child exhibits, the more stress parents report). However, as everyone who has taken a basic statistics course should remember, we *cannot* infer *causation* from correlational data. For example, even given a high correlation between parent stress and child behavior problems, we cannot conclude that high levels of child behavior problems *cause* parents to experience greater stress. It may be that this is the case. However, it also may be that parental stress leads to child behavior problems or that a third variable contributes to both stress and behavior problems. For example, a difficult child temperament may be related to the expression of both behavior problems in children and increased stress in parents.

Only from a true experimental study can one draw conclusions regarding causation. However, true experimental studies are often difficult to conduct on many of the topics of interest in school psychology. For example, because of legal and ethical constraints, researchers cannot assign some children to receive certain services and others to receive no services. What is sometimes possible, however, is to assign some children to receive “services as usual” and others to receive a different instructional method that shows promise in targeting a particular area. However, if students who are taking part in an intervention study are receiving special education services, it is important to ensure that all interventions are in compliance with the participating child’s individualized education program (IEP).

Experimental studies can be either group design studies or single-subject design studies. Because of the prominence of single-subject design methodology in the practice of school psychology, these designs are covered in detail later in a separate section of this chapter. Group design experimental studies involve random selection of participants (in which potential participants within the population of interest have an equal chance of being selected to participate) and random assignment of the participants to the different experimental groups (in which participants have an equal chance of being assigned to any of the groups in the study). In addition to true experimental designs, there are quasi-experimental designs in which the researchers cannot truly randomize participants (e.g., a researcher plans to examine the effects of different bilingual education programs but children are already placed in the different programs based on the schools they attend).

Within the field of psychology, intervention or treatment studies are some of the most common types of studies that involve an experimental design. For example, if a researcher was conducting a study designed to evaluate the effectiveness of an intervention for anxiety, children with anxiety would be selected from the general population (ideally this selection is random, but rarely is this truly the case) and randomly assigned to either an active treatment group (e.g., cognitive-behavioral therapy [CBT]) or a

control group in which children do not receive a treatment thought to affect anxiety (e.g., an attention-only group). Children in the study would be assessed at pre- and posttreatment. If children in the active-treatment group improved and those in the control group did not, the researcher could tentatively conclude that the treatment led to the improvement. However, various threats to the design of studies (outlined in more detail later in this section) may hinder conclusions and need to be considered when evaluating data.

Meta-Analyses and Systematic Reviews

In addition to original research studies, meta-analyses, which are systematic reviews plus quantitative syntheses of a group of studies that examined the same variable or variables, have gained in popularity over the years, and a well-done meta-analysis can be extremely valuable in integrating a variety of previous findings. When conducting a meta-analysis, the researcher examines original research studies on a certain topic. Results from individual studies are quantified using a common metric so that results from these individual studies can be combined and compared (Borenstein, Hedges, Higgins, & Rothstein, 2009; Kazdin, 2000).

For example, if one were conducting a meta-analysis on the effectiveness of medications versus CBT for anxiety, studies using each of these treatment modalities would be collected and coded so that all studies using medications for anxiety could be compared with all studies using CBT for anxiety. It should be noted that this is a simplistic explanation of meta-analyses because there are many issues to consider when conducting this type of research. For example, how studies are selected for inclusion is an issue; typically, studies are excluded if their methodology is deemed to be inadequate. In addition, different researchers may define constructs differently (e.g., CBT may be defined as including different components in different studies), and results obtained via different assessment measures are combined. Different methods for quantifying outcomes of studies can also

influence the outcomes of the meta-analysis and the conclusions reached (Borenstein et al., 2009; Kazdin, 2000). Even given these issues and the difficulties inherent in combining multiple studies in a common, quantifiable manner, the meta-analysis is the best method we currently have for summarizing and synthesizing empirical information across studies in a meaningful way. When results are systematically summarized but not synthesized using a shared and quantifiable metric, we refer to this type of study as a systematic review only. Although systematic reviews can also make valuable contributions to aggregating knowledge, their results are typically less precise and less generalizable compared to meta-analyses.

The use of effect sizes is the most common way of quantifying and comparing outcomes across studies in meta-analytic reviews. An effect size reflects the magnitude of a finding. Although there are different methods of calculating effect sizes, the most common method for group design studies involves subtracting one mean from another mean (e.g., the CBT group mean from the medication group mean) and dividing by the pooled standard deviation. The result is a number expressed in standard deviation units that has a mean of 0 and a standard deviation of 1 (Borenstein et al., 2009; Kazdin, 2000). Higher effect sizes indicate a greater difference between groups (for group design studies) or treatment phases (for single-case design studies). Cohen (1988) offered guidelines for interpreting these mean difference effect sizes. He suggested that effect sizes of 0.80 and greater are large; those from 0.50 to 0.80 are medium, and those from 0.20 to 0.50 are small. For more on calculating and interpreting different kinds of effect sizes for group design and single-case design studies, we recommend the introductory primers provided by Durlak (2009) and Parker and Hagan-Burke (2007).

Narrative Reviews

Although meta-analyses offer a way to quantify findings from different studies, narrative reviews of the literature are also commonly conducted. In

such a review, the researcher gathers original research articles about a certain topic area and summarizes the results in a qualitative fashion without attempting to create a common metric to combine quantitative results across studies. This approach differs from systematic reviews (sans meta-analysis) in that the approach or procedure for summarizing or aggregating available literature is nonsystematic and driven more by conceptual or practical concerns. Narrative reviews are not as useful as meta-analyses because they provide no way to easily summarize and compare results across studies; likewise, they are less useful than systematic reviews because they use less rigorous literature search procedures. In narrative reviews, it is more likely that studies of varying quality are included and less likely that the authors have specific criteria for the inclusion and exclusion of studies. Yet narrative reviews can make meaningful contributions to science and practice, especially when focusing on novel theoretical or practical issues. Ultimately, we suggest narrative reviews are best considered as tentative way stations—always pointing toward a more rigorous summary via systematic review or, better yet, meta-analysis.

Evaluating Research

As noted earlier, good consumers of research must be able to critically evaluate the research they read. In the following sections, we address some of the specific issues that should be considered (i.e., validity and clinical significance) when evaluating research articles, as well as the general steps one can take when reading research to help evaluate the quality and contribution of the research.

Internal Validity

Internal validity refers to the extent to which the results of a study can be attributed to differences in the independent variable in the study (e.g., the

type of treatment) rather than to factors unrelated to the study. For example, if children's depression decreases following participation in an intervention to treat depression, the stronger the internal validity of the study is, the more confident we can be that it was the intervention that led to the decrease in depression rather than some other factor (e.g., simple passage of time). In their classic text that is still relevant today, Cook and Campbell (1979) outlined a number of threats to internal validity. Some of the more common threats are listed here, with brief definitions and examples related to an intervention study for children with depression. These threats are also summarized in [Table 12.1](#).

TABLE 12.1. Threats to Validity

Threats to Internal Validity

- History: an event unrelated to the study occurs during the study
- Maturation: events that occur with the normal passage of time
- Testing: repeated testing at different times intervals during the study
- Instrumentation: changes in methods or measures used
- Statistical regression: tendency of extreme scores to regress to the statistical mean on repeated testing
- Selection: participants in one group differ from those in another group
- Mortality attrition: participants withdraw from the research study
- Selection interactions: methods of selecting participants or assigning participants to conditions interact with other threats

Threats to External Validity

- Sample characteristics: lack of similarity of participants to general population of interest
- Setting characteristics: lack of similarity of research setting to settings of interest

- Context characteristics: lack of similarity of participant behavior in research setting to behavior in natural setting
-

- *History*—an event unrelated to the study occurs and influences the results of the study (e.g., a popular student dies by suicide right before the postassessment period, and all children report increased symptoms of depression; obviously, this influences scores in the opposite direction than we would want to see).

- *Maturation*—events that occur with the normal passage of time (e.g., children report improvement on measures of depression simply as a result of the passage of time).

- *Testing*—repeated testing may influence results (e.g., children complete depression inventories every week, become bored with them, and begin answering all questions the same way).

- *Instrumentation*—changes in methods or measures used (e.g., children rate how “down” they feel on a weekly basis—however, over time some children begin to interpret this term differently than they did originally).

- *Statistical regression*—the tendency of scores to get closer to the statistical mean on repeated testing (e.g., one would expect that a child who scored very high on a measure of depressive symptoms would not score as high at a second testing simply because scores tend to regress to the mean).

- *Selection*—participants in one group may differ on some variables from participants in another group (e.g., children in the intervention group are primarily from high-socioeconomic-status [SES] backgrounds, whereas those in the control group are primarily from low-SES backgrounds).

- *Mortality*—participants may withdraw from the research study (e.g., more children in the intervention group drop out than in the control group,

leaving only the children most motivated to change in the intervention group, thus skewing the results).

- *Selection interactions*—methods of selecting participants or assigning participants to conditions may interact with any of the previously listed threats (e.g., children in the control group are all from the same classroom and children in the intervention group are from different classrooms; a child in the control classroom moved to another school during the intervention, possibly contributing to increased emotional distress in this group).

Given these threats to internal validity, what can be done to increase the internal validity of research, and what should consumers of research look for when attempting to evaluate the internal validity of a study? In studies using different groups of participants, random assignment to groups is important. Random assignment helps to equalize the effects of these potential threats across the groups. Of course, this does not always occur. Participants in one group may drop out at a higher rate than those in another group, even though random assignment was used. Historical events may also differentially affect the groups. An additional difficulty in applied studies, as noted, is that true random assignment is often difficult, and sometimes impossible, to achieve. For example, when conducting research in the schools, often classrooms rather than students are randomly assigned to conditions. This situation leaves open the possibility that differences between classrooms, rather than the intervention, are contributing to the results. When random assignment is not possible (or even in cases in which it is), participants in the different groups may be “matched” on certain characteristics to ensure that the groups are equivalent (e.g., students in the intervention and control groups may be matched based on gender, SES, and/or grade-point average).

External Validity

Even if a study has strong internal validity, the results may not be useful if they do not generalize beyond the experimental setting of the research study. External validity refers to the extent to which results from one study will generalize to other populations, settings, and so forth. Evaluating the external validity of a study is important because it helps consumers of research know to what extent the findings of the study may apply to the settings in which they work. Various factors have been noted to affect the external validity of research studies (Cook & Campbell, 1979; Kazdin, 2017; Scotti, Morris, Stacom, & Cohen, 2011)—these are summarized in [Table 12.1](#). One group of factors to consider are the characteristics of the sample used in the study. The more similar the participants in the research are to the individuals in the general population one wishes to know about, the more likely the results will generalize. For example, if a researcher was interested in crisis intervention practices of school psychologists in the United States, it would be best to obtain a sample of school psychologists from all areas of the United States rather than a sample of school psychologists from the specific state in which the researcher works. Alternatively, if one were interested in crisis intervention practices of school psychologists in rural areas, only school psychologists who work in rural school districts should be selected for participation.

The extent to which results will generalize also has to do with how the study was conducted. For example, if a study on the treatment of depression in children was conducted in a clinical setting with trained graduate student therapists following specific treatment manuals, the results may not generalize to a school setting in which the school psychologist would be implementing the intervention without specific treatment manuals and reliability checks, and in a more condensed time.

How participants react to being in a research study can also limit the ability to generalize findings. For example, if a study on child compliance is conducted in a clinical setting, it is likely that children will be more compliant than if they are in their home settings. Findings from this study may indicate that children are compliant with the majority of parental

commands. However, because of the difference between the laboratory (clinic) setting and the home setting, this number is not likely to be reflective of the true rate of compliance in children across different settings. Thus, the results would not generalize to other settings and would be specific to parent–child interactions in a clinic setting.

To produce results that are likely to generalize, researchers should strive to randomly select participants from the population to which they are interested in generalizing and ensure that the methods of the study are similar to the settings to which they wish to generalize. However, this is easier said than done—it is difficult to truly select participants randomly. For example, in selecting potential participants to be in a study on crisis intervention practices, a researcher might obtain a list of 500 school psychologists across the United States, randomly selected from NASP’s and APA Division 16’s membership lists. Although this sample of potential participants may be a random sample of NASP and APA members, it is not truly a random sample of school psychologists because only NASP or APA members could be selected. It may be that there is something different about school psychologists who are NASP or APA members compared with those who are not (e.g., NASP and APA members may be more likely to seek continuing education opportunities and, therefore, be more knowledgeable about crisis intervention). Thus, the results may generalize only to school psychologists who are members of NASP or APA. In addition, obtaining a random sample of individuals to whom the researcher will send the survey request does not guarantee that a random sample of surveys will be completed. Perhaps those school psychologists who are more involved in crisis intervention will be more likely to respond to the survey. Thus, although the target sample was randomly selected, those who responded are different from those who did not respond. Typically, there is no way to evaluate how those in the obtained sample may have answered differently from those who did not respond. However, in some situations it may be possible to compare those who responded to those who did not respond on certain characteristics (e.g., years of experience as school psychologists).

Because true random selection can be difficult to achieve, when evaluating research studies, one should attend to the extent to which random selection was attempted to help better understand the population to which the results will most clearly generalize.

Construct Validity

The construct validity of a study has to do with the intervention (or experimental manipulation) in the study and its definition. If threats to internal validity have been ruled out, one can assume that the experimental intervention was responsible for the effect. Questions of construct validity relate to the extent to which factors considered not to be part of the intervention interfere with the interpretation of the intervention (Finger & Rand, 2003; Kazdin, 2017). For example, did children who received a CBT intervention for depression improve more than those in a wait-list control group because of the cognitive-behavioral intervention specifically (as we might assume) or because they were receiving extra attention from a supportive adult? Threats to construct validity include experimenter contact with participants, demand characteristics, and experimenter expectancies. As in the preceding example, experimenter contact with participants may threaten the construct validity of a study if the experimenter has more contact with one group than with the other group. Demand characteristics can influence study outcomes when participants in research studies respond differently than they would naturally, simply because they are in a research study. Participants may attempt to respond in a manner consistent with what they think the researcher wants or expects. For example, parents whose children are in a treatment study for depression may report that their children's symptoms are better because they know that the goal of treatment is to decrease symptoms of depression. Expectancies of the researcher can also limit the construct validity of a study. For example, a researcher may expect the children in the treatment group to improve and those in the control group not to improve. Because of this expectancy, the researcher

may unknowingly and subtly treat the children in the two groups differently (e.g., being more positive with the children in the treatment group), and this subtle difference on the part of the researcher may influence the outcomes of the study (Kazdin, 2017; Scotti et al., 2011).

To help reduce threats to construct validity as well as internal validity, the gold standard when conducting group-based intervention studies is to use double-blind placebo-control designs. In such studies, participants are randomly assigned to either a treatment group or a no-treatment placebo group, but neither the researchers nor the participants know who is in which group. This type of design is frequently used when evaluating the efficacy of medications. For example, if a new medicine for social phobia is being evaluated via a double-blind placebo-control study, half of the children in the study would be assigned to take the new medication and half to receive a placebo pill (a pill with no active ingredients), but neither the researcher nor the participants would know who was receiving the placebo pill and who was receiving the “real” medication. (Obviously, someone knows, via coded links, who has received what medication—however, this person is not involved in running the study or interacting with the participants.) By using this design, the researcher can control for expectancy effects on the part of the participants and the researcher. Participants in both the placebo group and the medication group may expect that they will improve, but expectancy will not differentially affect the groups. In addition, the researcher will not treat those on medication differently from those taking a placebo because medication status is unknown to the researcher.

Although double-blind placebo-control studies are relatively easy to implement when evaluating the efficacy of medications, such studies are much harder to implement when evaluating psychological or educational interventions. As of yet, no one has developed an adequate psychological placebo. Some researchers use an attention-control group as a placebo treatment. In this situation, a study therapist meets with the participants but does not engage in the active therapy being evaluated (e.g., CBT). Instead, the therapist engages in nontherapeutic activities (e.g., play activities,

academic tutoring if the treatment focus is not on academics). However, given that the relationship between therapist and client seems to be an important factor in predicting who will improve in therapy, it is questionable as to whether this method truly represents a placebo treatment. In addition, it is very difficult to double-blind psychological or educational intervention studies. Although participants may not be aware of whether they are receiving the active treatment, researchers most likely will be aware because the difference between an active treatment and a placebo treatment can be observed (whereas a placebo pill can be made to look just like the real medication pill).

Statistical Conclusion Validity

This type of validity relates to errors in the use of measurement and statistical analysis techniques. Threats to statistical conclusion validity include unreliability of measures, low statistical power, subject heterogeneity, and increasing the study error rate by making multiple statistical comparisons (and, therefore, likely getting a result that is statistically significant simply because of chance; Finger & Rand, 2003; Kazdin, 2017). The use of appropriate assessment methods and statistical procedures can help reduce threats to statistical conclusion validity.

Clinical Significance versus Statistical Significance

In addition to evaluating the multiple aspects of the validity of a study, consumers of research should evaluate the clinical significance of the findings. Kazdin (2000) defines clinical significance as “the practical value or importance of the effect of an intervention, that is, whether it makes a real difference in everyday life” (p. 117). Statistical significance refers to conclusions reached about significance based on statistical hypothesis testing. This is the classic “ p value” with which one becomes familiar in introductory statistics courses. A p value refers to the probability that the finding was obtained by chance. In order to be considered statistically

significant, p values have traditionally needed to be less than .05 (i.e., $p < .05$), reflecting that there is lower than a 5% probability that the result would be obtained if the null hypothesis (i.e., that there is no treatment effect or no meaningful relationship between variables) were actually true. Low p values, then, are usually considered as indirect evidence that the alternative hypothesis (i.e., that there is indeed a treatment effect or meaningful relationship between variables) is probably true.

However, statistical significance testing has drawbacks. One drawback, which was just mentioned, is that the evidence is indirect for the alternative hypothesis, not direct. Another drawback is that p values are heavily influenced by sample size. If a study has a large sample size, statistical significance is relatively easy to achieve. Conversely, if a study has a small sample size (and, therefore, low power—the ability to detect a meaningful effect when the effect is present), statistical significance is difficult to achieve. In addition, statistical significance tells the reader nothing about whether the obtained result is meaningful in the real world. For example, if a researcher utilizes statistical significance testing to compare CBT with an attention-control “treatment” for children with anxiety, and if those in the CBT group have a significantly greater reduction in anxiety symptoms at the posttest than children in the control group, we only know that, as a group, children in the CBT group improved more than children in the control group. We do not know whether children in the CBT group showed a meaningful decline in symptoms. It is possible that children in both groups were still experiencing high levels of anxiety at posttreatment.

Effect sizes (as discussed in the [“Meta-Analyses and Systematic Reviews”](#) section of this chapter) have been used frequently as measures of clinical significance. However, although effect sizes are not influenced by sample size and do provide information about the magnitude of change, they still have limitations when evaluating the meaningfulness of a certain outcome. This issue is particularly relevant in treatment studies in which the question is whether a certain treatment is effective. In order to truly evaluate the effectiveness of a treatment, some measure of whether participants are

functioning at a normative level is generally needed, given that the goal in treatment is typically to return symptoms to a “normal” level. In addition to examining the effect size from pre- to postintervention for a given change, researchers can also determine whether scores at posttreatment fall in the normal range (as defined by normative information for that measure) and establish whether diagnostic criteria for the disorder for which the child was receiving treatment are still met (Kazdin, 2000). Jacobson and Truax (1991) originally proposed the idea of utilizing a *reliable change index* (RCI) in combination with statistically derived cutoff scores to help evaluate the clinical significance of results. The RCI involves determining whether reliable change took place from pre- to posttest and takes into account the standard error of measurement of the instrument used to assess change. A cutoff score denoting whether an individual is in the functional or dysfunctional range (obtained via various formulas presented by Jacobson and Truax) is used in combination with the RCI to determine whether an individual has achieved meaningful change.

Although methods of assessing clinical significance are increasingly being applied in studies (particularly therapy outcome studies), Kazdin (1999) argued that we should not assume that a person must be in the “normal” range on an outcome measure to conclude that change is clinically significant. He also argued that, in some cases, change can be clinically significant when an individual shows some changes even though symptoms are not normalized (e.g., a child with severe separation anxiety, which led to school refusal, can now attend school even though the child still has significant anxiety) or when the person is better able to deal with symptoms even though no change has occurred (this would be especially true in the case of chronic problems, such as tic disorders).

The topic of clinical significance and how to evaluate it is likely to continue to evoke much discussion. Consumers of research should be aware of this issue and, when reading research articles, attend to whether the authors have reported measures of clinical significance. This will help in the

evaluation of whether the article provides meaningful information that can be applied to everyday practice.

What to Look for When Reading Research Articles

In the preceding sections, we mentioned some aspects of research that the consumer should attend to when evaluating research studies. We now provide more details on how to evaluate the entirety of a research study. Pyrczak (2017) provides detailed information on evaluating research articles, and we have drawn extensively from his discussions. Consumers of research should begin their critical evaluation of an article with the introduction and review of literature. The literature review should include recent research on the topic area (although older research of a seminal or groundbreaking nature is also important to include), and the research should be discussed in an evaluative fashion so that both strengths and weaknesses of studies cited are clear. When discussing the previous literature, the authors should distinguish between theory-based or opinion literature and empirical literature. Literature reviews should be neither too broad nor too narrow but should provide sufficient background information to understand the importance of the current study. The literature review should make it clear how the present study builds on previous studies and should lead directly to the research questions or objectives for the current study. After reading the literature review, the reader should understand how the current study is situated within the existing literature and how the current study will help advance knowledge and understanding of the particular topic area.

The method section follows the literature review. This section typically includes three subsections that provide detailed information on (1) the participants involved in the study, (2) the measures used, and (3) the procedures followed. A close examination of the method section is important in assessing both the internal and the external validity of a study. Participants should be adequately described, and the general population

these participants were selected to reflect should be specified. Information on the number of participants and the demographic characteristics of participants should be included. Readers should evaluate whether the sample size is appropriate given the expectations of the study and the methods used to evaluate the results. In general, the more comparisons being made, the larger the sample size that is needed. For example, if a researcher is evaluating the outcome of a treatment program for depression and wants to look at outcomes for males versus females and children from two-parent homes versus one-parent homes, a larger sample size would be needed than if the researcher just wanted to examine overall outcomes. Measures used should be described and their psychometric properties mentioned. If the measures used were not psychometrically sound, the results may be questionable (e.g., findings may have been due simply to the unreliability of the measures used rather than the intervention). The procedures section should provide adequate details so that the reader is able to understand how the sample was chosen, how many eligible individuals participated, and what the dropout rate was. The uses of both random selection of participants and random assignment of participants should be clear from reading the method section.

If the study involves evaluation of the effectiveness of an intervention, details on what the intervention was and how it was implemented should be clear. In addition, the authors should provide information on how treatment integrity/treatment fidelity was evaluated. At a basic level, treatment integrity/fidelity refers to whether interventions are implemented as intended and planned (Perepletchikova & Kazdin, 2005). Researchers have talked about different components of treatment integrity/fidelity with some agreement that the following are important components to assess: What was actually delivered in terms of the treatment? Did individuals delivering the treatment do so competently? Was the overall quality of the treatment as intended? and Was the treatment delivered in the manner intended? (Gresham, 2009; Sanetti & Kratochwill, 2009). If the intervention is found to be ineffective but the treatment integrity/fidelity was low, it becomes

challenging to determine whether it was the intervention that did not work or simply that the intervention planned was not actually implemented with sufficient integrity. Thus, data regarding treatment integrity/fidelity is important in helping put findings about the intervention in context.

Within the results section, the reader must attempt to determine whether appropriate methods of analysis were used and appropriate conclusions reached based on the results of these procedures. The analyses should be tied to the research questions proposed by the study authors, and it should be clear how each research question was addressed. Researchers should also include general descriptive statistics that describe the sample prior to presenting their main data analyses. For example, means and standard deviations for all measures used should be presented. If there are different groups in the study, this information should be presented for each group and compared in some manner. If the groups are not equivalent on these variables prior to the implementation of an intervention, the researchers should attempt to account for the discrepancies in their data analysis. Statistical procedures used should be clearly described and any limitations noted. In addition to evaluating the statistical significance of the results, the researchers should also discuss the practical or clinical significance of the findings and make clear when results may not be clinically significant, even if they are statistically significant.

The discussion is the last section in an empirical research-based journal article. In the discussion, the authors summarize the findings and tie them back to their research questions and the literature previously reviewed. Readers should attend to whether the discussion accurately reflects what is presented in the results. Researchers sometimes overstate findings or play up significant findings while downplaying nonsignificant findings. In addition, the limitations of the study, including issues related to whether the results are likely to generalize, should be noted in the discussion. It is also important in the discussion to sketch future directions for progressing research in the particular area of inquiry, especially framed in light of the study's limitations. Finally, conclusions that are based on data should be

clearly differentiated from authors' hypotheses regarding what the results may mean. Because discussion sections do not always fully and accurately depict the actual results of a study, consumers of research should avoid skipping the results section and reading just the discussion section, although we realize it may be tempting to do this (especially in an analysis-heavy article).

The more one reads journal articles, the more familiar one will become with the different components of articles, and the easier it will become to evaluate research studies. We encourage school psychologists to take their journals off their shelves or peruse their online journal subscriptions and read at least one article of interest each month.

Conducting Applied Research in Schools

Thus far in this chapter, we focused on the school psychologist as a consumer of research. As important as it is to be a savvy consumer, we also believe there are great opportunities for school psychologists to become involved in conducting research. School psychologists have access to large populations of students, and students with a variety of difficulties are referred to them. This situation provides school psychologists with great opportunities to conduct research related to youth. These opportunities may include intervention studies (e.g., Do repeated readings with no corrective feedback increase children's reading fluency?), studies on assessment methods (e.g., Is a new measure of depression psychometrically sound?), and studies that attempt to more fully describe a population (e.g., How do the social skills of children with depression differ from the social skills of children with anxiety?).

Although most school psychologists receive some training in research methods in graduate school, those in specialist-level programs and doctor of psychology (PsyD) programs typically are not exposed to research as a primary focus of their training. If school psychologists wish to become involved in conducting research but are unsure of how to proceed, it may be beneficial to contact faculty members in school psychology training programs to collaborate on projects.

If school psychologists wish to conduct research in the schools (either on their own or in collaboration with faculty), they must take several steps before beginning the research. All research conducted in schools must be first approved by the school district. Districts have different procedures for approving research, but most have an individual or a committee that reviews proposals to conduct research in the schools. In addition to obtaining district-level approval, it is also important to obtain building approval through the school principal. If a school practitioner is conducting research

in collaboration with a graduate student or faculty member at a university, approval from the university's institutional review board (IRB) for the protection of human research participants also needs to be obtained. In addition to following required district procedures for conducting research, the school psychologist must adhere to ethical guidelines for conducting research. Ethically, participants must take part in the research voluntarily and must be allowed to cease participation at any time without consequence. For example, a student's grade cannot be dependent on the student participating in a research study. Informed consent must be provided by a child's parent or guardian prior to the child's participation in the study. For parents to provide *informed* consent they must be fully informed of the procedures involved in the research, as well as the risks and benefits to them and their children of participating in the research. Child assent should also be obtained directly from the child prior to study participation. Above all, school psychologists should ensure that the welfare of the youth they serve takes priority over their research agendas. For more information on research involving human participants, the Office for Human Research Protections website (www.hhs.gov/ohrp) offers a variety of information. In addition, the IRBs at all universities should have their own websites containing information specific to each institution.

When developing a research study, school psychologists should review the literature in the area in which they are interested and develop specific, testable research questions they wish to answer (Keith, 2008). Broad questions should be clarified and broken into smaller, targeted questions. For example, the question "How can the social skills of children with ADHD be improved?" is a large and somewhat vague question with no specific testable research questions. Specific research questions related to this global question might be:

1. Does a classwide social problem-solving skills intervention lead to increases in prosocial behavior in a sample of elementary school students with ADHD?

2. Does a pullout group program for students with ADHD that focuses on social problem-solving skills increase prosocial behavior in fourth- and fifth-grade boys with ADHD?
3. Does individual social problem-solving instruction result in an increase in prosocial behaviors in a sample of boys and girls with ADHD recruited from a small rural community?

A research project might focus on just one of these questions or might attempt to answer all of them and to make comparisons between the three methods of intervention. Following the development of specific research questions, it is important to have associated hypotheses, or what you expect to find. In addition to developing research questions and hypotheses, the researcher needs to define what is being measured and how the measurement will occur. For example, the researcher interested in social skills programs for children with ADHD would need to decide how to measure prosocial behaviors (e.g., observations of the students, teacher report, student self-report) and what specifically is defined, or operationalized, as prosocial behavior. Obviously, in this case, the intervention program(s) also need to be identified.

Single-Subject Research

Although the previous example is likely to lend itself to a group-design study, as noted earlier in this chapter, single-subject design research is particularly applicable in the school setting. There are a variety of single-subject designs (as discussed later in this section), but all such designs have some commonalities. Freeman and Eagle (2011) outline five characteristics of single-subject designs. Single-subject designs involve *intrasubject research* with participants serving as their own controls. The performance of participants is compared across several conditions, which at a minimum include a baseline and an intervention phase. In addition, single-subject designs involve the *repeated measurement* of the participants in the different

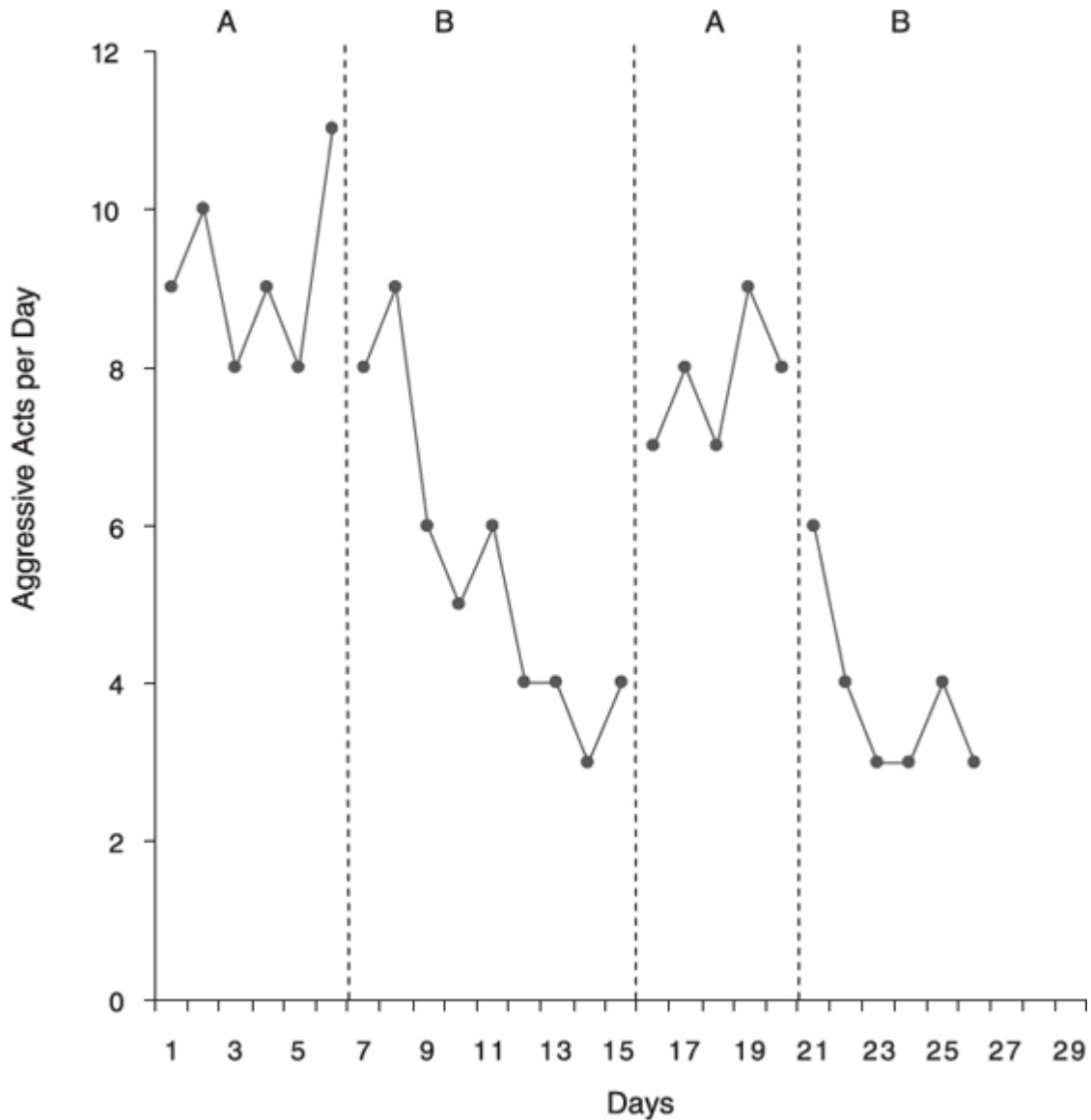
conditions. Often observations are conducted in single-subject research, but this is not a necessary aspect of such research. Dependent variables can also be measured via other means that lend themselves to repeated use (e.g., words read correctly on a curriculum-based measure [CBM]). Within single-subject designs, only *one variable is manipulated at a time*. This practice allows the researcher to make stronger conclusions regarding the effects of an intervention. For example, in an intervention to increase reading fluency, participants might initially be offered a tangible reinforcer for a certain rate of fluency. This would be the only change made, so that the researcher can determine whether this intervention leads to changes in fluency. Single-subject designs also involve *replication*. Instead of simply conducting a pre- and postassessment, there is some replication of the intervention condition. This strategy allows the researcher to be more confident that it is the intervention that is leading to observed changes. Finally, in single-subject designs, *data are represented in graphic form and analyzed using visual inspection*. Data are presented by participant and patterns of data are examined to determine trends (see below for more details on evaluating data from single-subject designs).

Because single-subject designs, unlike typical group designs, use participants as their own controls and do not require large sample sizes, they are well suited to research in the schools. School psychologists can obtain data on interventions they are implementing across just a few students and be able to draw strong conclusions. In addition, one of the appealing aspects of single-subject designs is the ease with which one can determine whether the intervention was effective. By graphing the pattern of responses under the different experimental conditions, one can *see* whether the intervention had an effect. In single-subject designs there are no concerns with complicated statistical analyses, as there can be with group designs. School psychologists can use single-subject designs to do research without having to access large populations of certain students, which may be difficult given the low prevalence rates of many disorders. For example, it would be unusual for a school psychologist to have more than a handful of children

with school refusal at any one time. Thus, utilizing a group design study to evaluate an intervention for school refusal would be difficult. However, using single-subject methodology, the school psychologist can research effective interventions for these children. The basic single-subject research designs are outlined subsequently. These designs are discussed in much more detail in a variety of sources (e.g., Cooper et al., 2020; Freeman & Eagle, 2011; Kazdin, 2013, 2017).

As noted previously, almost all single-subject designs begin with a baseline phase (typically referred to as “A”). Prior to beginning the intervention phase, it is important to ensure that the baseline data are stable. Baseline data should continue to be collected until such stability is achieved. Stability is typically reflected by a relatively flat line (indicating little change in the occurrence of the behavior) when data are graphed. The simplest single-subject design is a baseline phase followed by a treatment phase (an *AB design*). However, this design lacks internal validity because it does not allow the researcher to see whether the intervention or another factor accounted for the change. Therefore, this design is not typically used in research published in the more prestigious journals but variations on this design that have stronger internal validity are commonly utilized. In an *ABAB design*, baseline data are collected and the intervention implemented; then a return to baseline occurs and, after achieving a stable baseline a second time, the intervention is reimplemented. To conclude that the intervention is effective, the behavior should improve during the first treatment phase, reverse to close to initial baseline levels in the second baseline phase, and improve following the implementation of the second treatment phase. [Figure 12.1](#) provides a hypothetical example of an ABAB design in which an intervention was implemented to decrease a young child’s aggressive acts (e.g., hitting, kicking, biting). As can be seen in this graph, aggressive acts decreased in the B (intervention) phases compared with the A (baseline) phases. On the basis of a graph such as this one, a researcher could conclude that the intervention had the desired effect. Variations to the ABAB design are numerous and include adding additional

treatment components to study the effects of more than one intervention (e.g., ABACABAC, with B and C being different interventions).

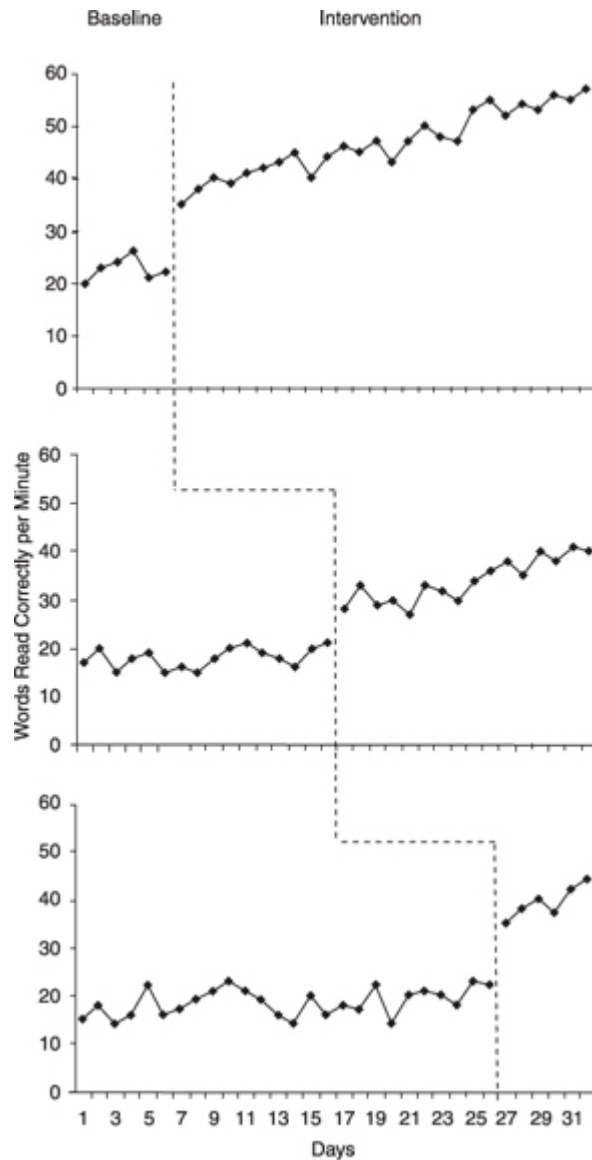


[Follow for extended description](#)

FIGURE 12.1. ABAB design example.

Multiple-baseline designs are also commonly used in single-subject research. In this type of design, instead of withdrawing a treatment, the treatment is implemented across multiple behaviors, settings, or individuals

at different points in time. If the treatment has an effect, the behavior should remain stable until the treatment is implemented for that behavior, setting, or individual. [Figure 12.2](#) presents a hypothetical example of a multiple-baseline design across three individuals. In this example, second-grade students struggling with reading were initially provided with no intervention (baseline phase) and reading performance was measured daily. A reading intervention was then implemented for one child (top graph), and this child's reading performance improved, whereas the reading performance of the other two children remained stable at baseline levels. The intervention was then implemented for the second child (middle graph) and the baseline condition remained in effect for the third child. Again, once the intervention was implemented, this child's reading performance improved. Finally, the intervention was implemented for the third child (bottom graph) and, as with the other two children, reading performance improved from baseline levels. Because each child's reading performance improved only after the intervention was implemented, we can conclude that it was likely that the intervention led to this change.



[Follow for extended description](#)

FIGURE 12.2. Multiple-baseline design example.

If a researcher wishes to compare the effectiveness of two or more treatments, an *alternating-treatment design* may be appropriate. In such a design, two or more treatments (both intended to address the same target behavior) are presented in a random fashion (so that B does not always follow A) across observation periods. This procedure allows the researcher to determine whether one intervention produces a greater effect than

another intervention. Although baseline phases are not required in alternating-treatment designs, they are frequently included prior to the presentation of the alternating treatments. Another variation on the alternating-treatment design is to include a final phase in which only the “best” treatment from the alternating-treatment phase is included.

Changing-criterion designs are used to evaluate the effectiveness of an intervention through making the criterion for success (and the associated reinforcement for this success) increasingly more stringent. In this design, the individual must reach a certain criterion to earn a reinforcer during the treatment phase. Once this initial criterion is met on a consistent basis, it is altered to require an increased level of performance. Once the second criterion level is met, the criterion is increased again, and so on. If the behavior changes only after the criterion is adjusted, the researcher can conclude that it was likely the intervention that resulted in the behavior change. For example, a child who is completing no math problems may initially have to complete five math problems to earn a reinforcer. Once the child is consistently completing five math problems, the criterion may be changed to 10, and then 15, and so on until the child is regularly completing an entire math worksheet of 25 problems.

Once a researcher has collected the data in a single-subject design, the data must be evaluated. Data from these studies are typically graphed, and a visual analysis of these graphs is used to interpret the data and determine whether a meaningful change in behavior occurred and whether this change can be attributed to the intervention (Cooper et al., 2020; Kazdin, 2013). As outlined by Kratochwill and colleagues (2010), an approach to visual inspection of the data involves the following four steps: (1) documenting a *predictable baseline pattern* for the target behavior(s); (2) looking for *within phase* patterns of behavior for each phase of the study; (3) *comparing data across phases* to determine if a predictable pattern of behavior change (i.e., dependent variable) corresponded with changes in treatment or manipulation of the independent variable; and (4) looking across all phases to determine if there is a causal or functional relation between the

dependent variable (target behavior) and the independent variable (treatment) as demonstrated by at least three changes in responding that follow phase changes (e.g., in a multiple baseline design, increase in appropriate behavior following implementation of intervention across at least three students). In following these four steps, there are six features of the data that are examined (Kratochwill et al., 2010) to assess patterns within and across phases. These are (1) level/within phase mean score, (2) trend/slope of data, (3) variability/range of data, (4) immediacy of observed change corresponding to phase change, (5) overlap of data points, and (6) consistency of data patterns across similar phases. To determine whether a functional or causal relationship is observed in the study, each of these features should be evaluated individually and also taken together as a whole.

In some cases, it is quite easy to see that there was an effect. For example, if data are stable within each condition and no data points overlap between the baseline and treatment conditions, the researcher can conclude that the intervention had an effect. This is the case in the multiple-baseline example provided in [Figure 12.2](#)—for each child, there is no overlap between data points in the baseline and intervention phases. However, often there will be significant variability within phases and overlap in data points between phases (as there is in the ABAB design example shown in [Figure 12.1](#)). The more variability there is in the data within a certain condition, the greater is the need for additional data to help spot a pattern of responding. Without a stable pattern of responding within each phase, drawing conclusions becomes more difficult, especially if there is a large overlap between data points in the different phases. The level of responding during each phase can also be examined to determine whether there is a difference in the behavior across conditions. For example, when switching from baseline to treatment, there may initially be a very dramatic change in level of the behavior. In an ABAB design, the same dramatic shift may also occur when returning to the baseline phase. The mean rate of behaviors in each condition is one method used to evaluate the level of responding. However, this method has drawbacks, particularly when there is significant variability in the data

within conditions and a mean level line would not accurately reflect what was happening in each condition. When examining the trend in data, an evaluation of the overall pattern of responses is conducted. This may be accomplished via examination of a trend line for each phase. For example, in the ABAB design in [Figure 12.1](#), although there is some variability in responses in each of the phases, in general there is little change in the trend of the data in the baseline phases but a clear decreasing trend in the data following implementation of the intervention. In this example, there is both a change in the level of behavior and a change in the trend of the behavior between the baseline and treatment conditions.

While effect size estimates are available for group design and meta-analyses (as discussed earlier), methods for calculating effect size estimates are not as well developed for single-subject designs. While there has been much work in this area in recent years, there are currently a variety of different methods of evaluating effect sizes and no one agreed-upon method or standard for effect size estimation for single-subject studies (Kratochwill et al., 2010; Pustejovsky, 2019; Shadish, 2014). Some of the methods proposed include evaluation of standard mean differences (e.g., Cohen's *d*), overlap statistics, regression analyses, and Bayesian statistics (Shadish, 2014). However, given the lack of agreement among single-subject researchers, we do not go into detail on these methods. Interested readers can refer to the references cited here, as well as texts on single-case design (e.g., Kratochwill & Levin, 2014).

As we discuss in more detail in the final section of this chapter, single-subject designs can be utilized not only when conducting formal research but also when evaluating the effects of interventions for individual students. As such, all school psychologists should be familiar with the basic single-subject designs and how to evaluate change when using these designs.

Program Evaluation

An additional type of applied research in which school psychologists may become involved is program evaluation. Program evaluation involves evaluation of social intervention programs (Rossi, Lipsey, & Henry, 2019). At the heart of program evaluation is the idea of accountability at the systems level. Given that accountability has been an increasingly emphasized concept in education in general and school psychology specifically, this type of research is an important activity (Godber, 2008). A variety of ongoing programs are implemented in schools (e.g., academic intervention programs, drug abuse prevention programs, bully prevention education), and evaluation of these programs is imperative to ensure that the outcomes are at the desired level. Unfortunately, it seems that programs have often been implemented with little research to support them, and then little research is conducted to evaluate the effectiveness of these programs once they are in place. In some cases, programs may become exceedingly popular without any data to indicate that they are making the impact they are intended to make. One notable expert in special education and school psychology research has stated that “educators are notorious for embracing programs that look good but do no actual good” (Walker, 2001, p. 2). An example of this phenomenon of popular programs that are thin in supporting evidence is the Drug Abuse Resistance Education (DARE) program, a well-intentioned program geared toward preventing substance abuse. Although DARE programs have been implemented in the schools for a number of years, and continue to be implemented currently, outcome data on these programs have not been impressive (Singh et al., 2011; West & O’Neal, 2004). However, schools, families, and communities look favorably on this program and have expressed great distress in areas where this program has been replaced with different drug abuse prevention programs, including those that have more supportive evidence behind them (e.g., Lynam et al., 1999).

Program evaluation is a broad and complex area. There are different types of evaluations, as well as numerous evaluation activities. One distinction that is often made is between formative and summative

evaluations. Formative evaluation is ongoing and intended to provide feedback on how a program is working so that changes can be made, if needed. Summative evaluation is conducted after the program has been in place for some time or at the end of a program to determine how effective the program has been (Fitzpatrick, Sanders, & Worthen, 2011; Godber, 2008). Often an evaluation incorporates both formative and summative activities. A distinction between internal and external evaluations is also often made. Internal evaluations are those completed by staff members from the agency running the program (e.g., a school psychologist employed by the school district evaluates the effectiveness of the school's drug education program). External evaluations are those completed by a group or individual outside of the agency (e.g., a group of researchers from the state department of health evaluates the school's drug education program). There are advantages and disadvantages to both internal and external evaluations. External evaluators are likely to be more objective about the program they are evaluating, whereas internal evaluators are more likely to be familiar with the program and the context in which it operates (Fitzpatrick et al., 2011).

The activities within any type of program development and associated evaluation are numerous. In general, one needs to first identify the nature of the problem and the needs of the organization. Following this, goals and objectives for addressing the problem should be specified and activities planned that align with these goals/objectives. Outcome measures should also be identified that allow one to track whether progress is being made. Each process is discussed in more detail below.

Targets/Needs Assessment

The main question to be addressed at this phase is whether there is a problem. Assuming that a problem is present (e.g., students are being bullied at school), the evaluator must clearly define the problem. This definition includes who is affected by the problem (e.g., students in middle school and

high school), as well as the severity of the problem (e.g., about one-quarter of middle and high school students are victims of bullying). The identification of the problem can be achieved through a review of previous literature (including government reports) and by obtaining information directly from those involved in the organization. For example, in defining the bullying problem, one might look at previous research (which suggests that many middle school and high school students are bullied) and also obtain information directly from those in the schools in which one is considering implementing a program. One might conduct interviews with teachers, school staff, and students, and review disciplinary records. In defining the problem, one should also ensure that the identified problem is an important issue for those involved. For example, if students indicate that bullying is a problem but rank alcohol use and school crime as greater problems, it may be better to address one of the more salient issues instead of bullying. It is also important to assess the demand for a program. For example, a school psychologist may wish to implement a bully prevention program that includes both a schoolwide component and a parent education component about recognizing the signs of bullying and/or bully victimization and how parents can respond. However, it may be that parents (even those who perceive bullying as a problem) are not interested in actively participating in such an education program.

Identifying Goals and Objectives

Once the need has been identified, more specific goals and objectives are developed. For example, if a bully prevention/intervention program is to be implemented, goals might include decreasing the amount of bullying in the hallways between classes and increasing response times when students report a problem with bullying. Objectives would then be developed that relate to the goals (e.g., when a bullying episode is reported to a school administrator, counselor, or teacher, the incident will be responded to

within one school day). The objectives are important because these help guide the evaluation process.

Program Activities

The activities are the specific prevention/intervention services that are being delivered to meet the stated goals and objectives. For example, program activities might include providing classwide information on bullying, conducting pullout groups with victims of bullying, and providing trainings to school staff on what to look for related to bullying problems.

Assessing Process and Outcomes

At this stage of the evaluation process, the program has been implemented and data are collected to help determine whether the program is being implemented as intended and whether the program outcomes are positive. Questions related to the process of implementation might include the following: Is the program reaching those in need? Are program participants receiving the level of services intended? Are the needed resources available and are these being used appropriately? (Rossi et al., 2019). Returning to the bullying program example, let's assume that, based on the needs assessment, we have chosen to implement a schoolwide intervention with components that address student and staff outcomes and objectives, as well as small-group interventions for selected individuals. It is likely that this program is reaching those in need because of the broad nature of the program. To evaluate whether participants are receiving the level of services intended, we could evaluate how much time is being spent in intervention activities, whether students/staff are attending trainings as intended, whether lesson topics are being appropriately covered, and so on. In terms of evaluating whether needed resources are available and being used appropriately, we could interview teachers who are implementing the intervention and ask about coverage of certain issues, as well as their perceptions of whether they have the resources necessary to conduct the intervention (e.g., Are they

receiving needed training in the intervention? Do they receive release time for preparing the intervention materials?).

When assessing program outcomes (also referred to as impact evaluation; Rossi et al., 2019), evaluators should determine whether the specified objectives are being met. In addition, it is often important to evaluate the efficiency of the program (i.e., the costs related to the benefits; Rossi et al., 2019). These activities can be quite complicated because there are numerous ways in which a program can be evaluated. The key idea behind assessing the outcomes of a program is determining whether the program produced the desired effect (e.g., a decrease in bullying) and whether this effect was greater than what would have occurred without the program or what would have occurred with an alternative program (Rossi et al., 2019). Outcome measures (e.g., school discipline records, rating scales, observations), as well as the group that will provide outcome data (e.g., students, parents, teachers), must be identified. It should also be recognized that the program may have an impact on more people than just the program participants. The families of participants, as well as staff members at the school where the program is implemented, may be affected. In addition, the immediate impact of the program may differ from its long-term impact (Greene, 2003). Thus, the evaluator must decide who will be the focus of the impact assessment, as well as the time intervals that will be used to evaluate the impact. In addition, the evaluator must ensure that the design of the evaluation study allows the evaluator to draw conclusions regarding the effects of the evaluation (i.e., that there is internal validity). Rossi and colleagues (2019) discuss a variety of specific designs and techniques for evaluating program impact/outcomes.

The efficiency of a program may be evaluated through cost-effectiveness or cost-benefit analyses (Greene, 2003; Rossi et al., 2019). In a cost-effectiveness analysis, the cost of a program is evaluated relative to the results of the program. This allows comparison across programs (e.g., one bullying program, at a cost of \$10 per student to implement, reduced bullying rates by 50%; another program at a cost of \$50 per student reduced

bullying rates by 75%—thus, the cheaper program is more cost-effective). In cost-benefit analyses, the cost of the program is compared with the monetary value of the result. In this method, the outcome is expressed purely in monetary terms (e.g., difference in dollars expended on the antibullying program vs. dollars saved from reduced negative consequences associated with bullying). The actual calculations of the efficiency of a program can, obviously, get quite complicated, especially when attempting to assign a monetary value to outcomes that are not easily quantifiable.

As should be evident from this brief discussion, program evaluation is an important yet complex activity. Programs often have many more components, individuals involved, and desired outcomes than experimental research studies. In addition, programs tend to be ongoing rather than time limited, as traditional research studies are. Because program evaluations are complex, they are rarely carried out by a single person. School psychologists who wish to become involved in program evaluations should seek information on what is already being done in their districts and attempt to collaborate with individuals currently involved in such activities. In addition, school psychologists could collaborate with university faculty in developing and evaluating programs designed to address school-based issues.

Data-Based Decision Making

Although not all school psychologists are engaged in formal research activities, all school psychologists should be engaged in data-based decision making, a core domain in NASP's Professional Practice Model (2020b).

Particularly as tiered intervention procedures are being implemented with increasing frequency, it is imperative that school psychologists understand how to make data-based decisions. As discussed in detail in [Chapter 3](#), the data-driven problem-solving model requires that school psychologists examine discrepancies between how a child is currently performing (what is) and how the child should be performing (what should be). Under this model, discrepancies are domain specific (e.g., a child may have a discrepancy in social skills but not in reading skills) and context dependent (e.g., the problem may be present during independent seat work but not small-group activities), and the assessment of the discrepancy is specific to the situation (e.g., using CBM probes to assess reading fluency).

Interventions are then developed that target the discrepancy within the context in which the problem is occurring. Interventions should target the specific reason why the problem is occurring, as outlined in the overview of problem analysis in [Chapter 3](#) (e.g., Is the work too difficult for the student? Does the student “get” something out of not doing the work?). Once the intervention is in place, it should be monitored via continuous collection of objective data (e.g., CBM probes, behavioral observations) to determine whether the intervention is having the intended effect and is, in fact, decreasing the discrepancy between “what is” and “what should be” for the student. At each of the steps in the problem-solving model, the school psychologist is required to use data to inform the decision-making process.

Data-based decision making as used within the problem-solving model closely parallels research activities but also has some differences. Research activities are geared toward drawing conclusions that may generalize to

other settings, individuals, and so forth. Research activities typically begin with specific research questions and hypotheses. Participants who meet certain criteria are then recruited to answer these questions. Data-based decision making is more focused on the individual student or client. The “question” to be answered is whether an intervention is having the intended effect for a specific individual in a specific situation. For example, a child with reading difficulties is referred to the school psychologist for an evaluation. The evaluation is conducted and recommendations are made for improving reading performance (e.g., conducting reading drills with overcorrection procedures). The question of interest in this case is “Do reading drills increase the student’s reading fluency?” In data-based decision making, the focus is on addressing the problem (i.e., discrepancy), and the question is whether or not the discrepancy was reduced by the intervention. When the presenting problem involves an individual child, the methods of evaluation are much the same as they are in single-subject research designs: We want to be able to draw an informed conclusion regarding whether the intervention is having the desired impact on the student.

To obtain a baseline level of the student’s reading fluency prior to implementing the reading drills, the school psychologist might administer CBM probes. Following the baseline phase, the reading intervention is implemented, and the school psychologist continues to evaluate the student’s reading fluency through regular CBM probes. Assuming reading performance improves, the school psychologist may be satisfied and conclude that this intervention is having the desired effect. If reading fluency does not improve, the school psychologist would likely conclude that the intervention is not having the desired effect and would implement another intervention. If performance is evaluated in this manner, the basic AB design described earlier is followed. However, as noted, with this design the school psychologist would be unable to attribute improved performance to the intervention specifically because there might be something else influencing the outcomes. For example, in this case, perhaps it was noted that the student’s vision seemed to be poor, that the student recently started

wearing glasses, and that it was actually improved vision that led to improvements in reading. To be confident that it was truly the intervention that led to the improvement, the school psychologist would need to implement one of the other single-subject designs (e.g., an ABAB design) discussed earlier.

In addition to making data-based decisions regarding the effectiveness of specific interventions for children, school psychologists should also assist in making data-based decisions regarding students' educational programs. As discussed in [Chapter 7](#), all students who are receiving special education services must have IEPs that outline specific goals they are to achieve. However, all too often there is little done to evaluate whether children are meeting their IEP goals. If it is unclear whether goals are being met, it is also unclear whether the special education program is having a positive impact on the child. Thus, it is imperative that IEP goals be evaluated. For this to occur, IEP goals must be stated in measurable terms, and the child's performance on these goals must be evaluated on an ongoing basis. IEPs need to be reviewed at least once a year. However, progress toward goals should be monitored much more frequently to determine whether the child is making adequate progress. Baseline levels of performance, as well as expected levels of performance, must be clear, and a system to measure change over time must be in place. If the child is not progressing, modifications may need to be made to that child's educational plan.

In addition to using data-based decision making to evaluate the outcomes for individual students, school psychologists who are involved in primary or selective prevention efforts with groups of students (as discussed in [Chapter 3](#)) should also engage in data-based decision making. This data-based decision making may encompass both evaluation of the prevention program as a whole (which would parallel program evaluation methods discussed earlier in this chapter), as well as evaluation of individual student progress. As noted in [Chapter 3](#), not all students respond in the same manner to prevention efforts. Thus, for some children more intensive services may need to be implemented, whereas for others the services

provided through a prevention program may be adequate to prevent learning or behavioral problems. Without monitoring of student progress, it becomes impossible to know which students involved in a primary prevention program may benefit from secondary or tertiary prevention and intervention efforts. In addition, if data are collected in a proactive manner (i.e., data are obtained on all students) on important domains of functioning (e.g., reading), then this information can help inform decisions regarding in which areas schools should focus their prevention efforts and which students should be the targets of secondary- and tertiary-level prevention and intervention.

Implementing interventions without evaluating their effectiveness is poor practice and is much less likely to lead to positive change for students than interventions that are evaluated in an ongoing fashion and are modified as needed. As noted in [Chapter 3](#), there is significant concern that traditional special education services are not effective in reducing the performance gap between students with and students without disabilities. If this is the case, clearly we are doing many students a disservice by not providing them with the skills they need to succeed within our school systems. We believe that by following the data-based problem-solving model in their daily practices, school psychologists can make a difference and can help students close that gap between where they are performing and where they should be performing. Ultimately, we recognize that many practicing school psychologists do not have opportunities to participate in formal applied research projects and that, given the scope of their roles, many may be precluded from engaging in program evaluation efforts. Yet we are confident that *all* school psychologists—no matter their training background and current duties—can use real-time research skills to engage in data-based decision making so that children are receiving the services most likely to meet their needs.

Discussion Questions and Activities

1. Obtain a copy of a recent issue of one of the main school psychology journals. Examine the articles published in this issue and identify whether each is an original research article, a meta-analysis, or a narrative review. What differences do you see in the structure of these different articles?
2. Using a group design experimental study from one of the main school psychology journals (or another journal focused on children), identify the possible threats to internal validity in the study. Also note whether the authors mention these threats in the discussion section of the article.
3. Locate a group-based intervention study focused on children (the *Journal of Clinical Child and Adolescent Psychology* is one good source of intervention studies). Do the authors provide intervention fidelity data? Do the authors evaluate the clinical significance of their results? If so, what method(s) do they use? Do you agree with their conclusions regarding the meaningfulness of their findings?
4. Locate a single-subject design study (the *Journal of Applied Behavior Analysis* is one good source of such studies). What type of design do the researchers use? How do they evaluate the meaningfulness of the effects of their intervention?
5. Ask around in your school district about the types of programs that are run and the types of evaluation activities that occur. Are all programs evaluated? Do you see areas for improvement in the way programs are evaluated? Explain.
6. Interview several school psychologists regarding their data-based decision-making practices. Do they regularly engage in this practice? If not, why? If they do, obtain some examples of how they apply the methods and principles discussed in this chapter.

Chapter 13



Moving the Field Forward

Mapping the Future of School Psychology

As spotlighted in recent NASP Annual Conventions, the field of school psychology has focused on critical topics, such as the ways in how creating connections—one person at a time—makes a big difference in the lives of students (NASP 2018 Annual Convention), how prevention is the key to unlocking every student’s potential (NASP 2019 Annual Convention), and how school psychologists function as leaders across their multiple roles (NASP 2020 Annual Convention). In reflecting on these topic areas, we asked ourselves questions about the future of our field that are just as relevant today as they were in the first two editions of this book and as we look into the next decade: “Where is school psychology heading?” “What will the field look like in 10 years?” “What will happen to school psychology if public education and/or the field of psychology undergoes major changes?” We had previously predicted significant changes were ahead. We have seen challenges to our field and also seen the resilience of our field. We know that there are changes and challenges ahead—some of which we believe are predictable and others of which will surprise us. But throughout the changes and challenges, we are confident in the strength of school psychologists—as individuals and as a field—and the desire to, in the words

of NASP, help “all children and youth thrive in school, at home, and throughout life.”

It is easier to project certain aspects of the future of the field (e.g., employment trends, demographics) but much more complicated to predict with confidence what the future will hold. In fact, what we can predict with the most confidence is that significant changes continue to be ahead of us. From our present standpoint in time and experience, we can quite confidently describe what we would like to see as the future of school psychology, and in this edition of the book, we have provided a contemporary road map or model for the field. In fact, the title of this book, *School Psychology for the 21st Century: Foundations and Practices*, was originally developed from our specific objective of writing a book on school psychology that went beyond merely describing the history and present status of school psychology to actively advocating for what we consider to be models of best practice now and in the future. Today, two decades into the 21st century, we continue to look forward and, in this chapter, bring together what we know to tentatively prognosticate the future.

However, describing what will be is a complicated matter, and we realize that prognosticating regarding the future is inherently risky business. Despite the necessary caveats that must be considered in writing a chapter on moving the field of school psychology forward, we believe that such a focus is a fitting way to conclude this book. We recognize that there is some risk that our emphases and predictions might appear naive or off the mark even just 10 years from now, but we are confident that our views are well considered and based on a solid foundation. Indeed, if our track record of prognosticating into the future is as good as it was in the last two editions of this book, we are in pretty good shape. That said, we recognize the challenge in promoting a view about the future of school psychology. Confucius is credited with coining the phrase, “Study the past if you would define the future” and Mahatma Gandhi for noting that “The future depends on what you do today.” Given our collective knowledge of where the field has been

and what is happening in the field today, we dare go out on a limb to make some predictions about the future of the field.

During the last part of the 1990s through the first part of the 21st century, the future of school psychology has been a major focus within the field and several key publications and conferences addressed issues related to school psychology in the 21st century. Furthermore, changes in key federal legislation and policy, as well as advancement in research, have helped shape the field. Foremost among these is the passage of the 2004 Individuals with Disabilities Educational Improvement Act (IDEIA 2004; i.e., special education law) and the 2015 Every Student Succeeds Act (ESSA; i.e., general education law), which was the update to No Child Left Behind (NCLB; in place from 2002 to 2015). Three key policy documents in school psychology and psychology broadly are also helping shape the future: (1) APA's Ethical Principles of Psychologists and Code of Conduct (2010; currently being studied for revision); (2) NASP's Model for Comprehensive and Integrated School Psychological Services (2020b); and (3) APA's Multicultural Guidelines: An Ecological Approach to Context, Identity, and Intersectionality (2017). In addition, there was the 10-year follow-up to the 2002 Futures Conference in 2012, School Psychology: Creating Our Future(s), which was collectively sponsored by several school psychology professional groups and took place via a series of webinars. The focus of this 2012 conference was "to join school psychologists together to ensure children's future academic and mental health through the promotion of leadership, critical skills, and advocacy by school psychologists" (Jarmuz-Smith, Harrison, & Cummings, 2013, pp. 6, 8).

A number of key publications have focused on the future of school psychology throughout the past few decades. These include (but are certainly not limited to) the following:

- NASP's *School Psychology: A Blueprint for Training and Practice* (Ysseldyke et al., 1997, 2006).

- A special issue of the *Journal of Educational and Psychological Consultation* (2009, vol. 19, no. 3) commenting on the *Blueprint*.
- The proceedings of the 2002 Future of School Psychology Conference, with presentations included as articles in special issues of *School Psychology Quarterly* (2003, vol. 18, no. 4) and *School Psychology Review* (2004, vol. 33, no. 1). Article topics include the following, as well as many others:
 - Promoting evidence-based interventions in school psychology.
 - Projections regarding the personnel needs in school psychology.
 - Family–school partnerships.
 - Critical issues faced by students and the role of school psychologists.
- A special issue of *School Psychology Review* (2000, vol. 29, no. 4) titled “School Psychology in the 21st Century.”
- A chapter by Reschly and Ysseldyke (2002) titled “Paradigm Shift: The Past Is Not the Future,” in *Best Practices in School Psychology IV*. This chapter was later updated by Reschly (2008), in *Best Practices in School Psychology V*, and titled “School Psychology Paradigm Shift and Beyond”; and again by Ysseldyke and Reschly (2014) for the newest *Best Practices in School Psychology: Data-Based and Collaborative Decision Making*, and titled “The Evolution of School Psychology: Origins, Contemporary Status, and Future Directions.”
- A chapter by Gutkin (2009) titled “Ecological School Psychology: A Personal Opinion and a Plea for Change,” in *The Handbook of School Psychology*.
- A special series in the *Journal of Educational and Psychological Consultation* (2012, vol. 22, no. 1–2) on ecological approaches to mental health and educational services for youth in schools.
- *School Psychology: Past, Present, and Future* by Fagan and Wise (2007).
- A special issue of *School Psychology Quarterly* (2004, vol. 19, no. 4) on developing university faculty in school psychology.

- Special issues in *Psychology in the Schools* on current issues in training school psychologists (2011, vol. 48, no. 9) and preparing the next generation of school psychologists (2013, vol. 50, no. 3).
- A commentary by Burns (2011) about the role and need for theory in guiding research and practice in school psychology: “School Psychology Research: Combining Ecological Theory and Prevention Science.”
- An article by Kratochwill and colleagues (2012) about using practice to generate research that will, in turn, advance the evidence base for practice: “Practice-Based Evidence for Children and Adolescents: Advancing the Research Agenda in Schools.”
- A survey of luminaries in the field, titled “Scientific Research in School Psychology: Leading Researchers Weigh in on its Past, Present, and Future,” published in the *Journal of School Psychology* (McIntosh et al., 2013).
- A commentary by VanDerHeyden and Burns (2018) about using assessment data to drive interventions: “Improving Decision Making in School Psychology: Making a Difference in the Lives of Students, Not Just a Prediction about Their Lives.”
- A chapter by VanDerHeyden and colleagues (2019) titled “Future Issues and Controversies That Will Shape School Psychology,” in the edited volume *Introduction to School Psychology: Controversies and Current Practice*.
- A special issue in *School Psychology* (2020, vol. 35, no. 6) titled “75th Anniversary History on the Future of Proactive School Psychology: Transforming the Past, Excelling the Present, and Transforming the Future.”
- The “School Psychology Unified Antiracism Statement and Call to Action,” which was coauthored by representatives from APA Division 16, Trainers of School Psychologists, Council of Directors of School Psychology Programs, Society for the Study of School Psychology, the

American Board of School Psychology, and NASP (García-Vázquez et al., 2020).

In addition, recent publications in the field of school psychology have emphasized key areas of importance for advancing our profession, including (but, again, certainly not limited to) the following:

- Diversity training and enhancement among students, practitioners, and faculty/trainers in the field of school psychology (e.g., Blake, Graves, Newell, & Jimerson, 2016; Lopez & Bursztyrn, 2013; Newell et al., 2010; Proctor et al., 2014).
- Promoting equity and inclusion—and reducing disparities—related to academic scholarship and publishing in school psychology journals (e.g., Coddling et al., 2020; Jimerson et al., 2021).
- Supporting LGBTQ, ethnically and linguistically minoritized, and other culturally diverse youth within schools (e.g., Lokhande & Reichle, 2019; Lopez, Nahari, & Proctor, 2017; NASP, 2019; special issue of *Journal of School Psychology*, 2019, vol. 75; special issues of *Psychology in the Schools*, 2018, vol. 55, no. 1; 2017, vol. 54, no. 10; and 2014, vol. 51, no. 4).
- Collaborating with and engaging families in the provision of school psychological services (e.g., Sheridan & Garbacz, 2021; special series in *Journal of School Psychology*, 2017, vol. 62).
- Using evidence-based strategies to promote youth well-being and mental health in schools (e.g., NASP, 2015b; Reinke, Sims, et al., 2018; Shernoff et al., 2017; Splett, Fowler, Weist, McDaniel, & Dvorsky, 2013; special series in *School Psychology Review*, 2021, vol. 50, no. 1; special issue of *Psychology in the Schools*, 2011, vol. 48, no. 3).
- Integrating social–emotional learning and positive behavioral interventions and supports as a wholistic prevention framework for promoting student success (e.g., Barrett, Eber, & Weist, 2017;

Domitrovich et al., 2010; special issue of *Psychology in the Schools*, 2010, vol. 47, no. 1).

- Using implementation science to ensure successful academic, behavioral, and social–emotional intervention across targets and tiers (e.g., Forman et al., 2013; Sanetti & Collier-Meek, 2019; special issue of *Journal of School Psychology*, 2019, vol. 76).
- Preparing for, preventing, and intervening with crises at both the student and school levels (e.g., Brock et al., 2016; Brown & Jimerson, 2017; Moutier & Marshall, 2019).
- Advancing the rigor of scientific methods used in school psychology research (e.g., special series in *Journal of School Psychology*, 2017, vol. 60; 2014, vol. 52, no. 2).
- Supporting students, schools, families, and communities through the COVID-19 pandemic (e.g., special series in *School Psychology*, 2021, vol. 36, no. 5; special series in *School Psychology Review*, 2021, vol. 50, no. 4).

We have been influenced by these efforts to describe the future of the field of school psychology and have borrowed liberally from these sources in the preparation of this chapter. This chapter includes a review of some issues related to the history of school psychology and, as influenced by the Confucius quotation above, how our past has shaped the present and future of the field in both positive and negative ways. Some prior efforts to predict the future of school psychology are reviewed. We should note that we owe a special debt to Fagan and Wise (2000, 2007) in developing our discussion of prior prognostication efforts because their analyses of past attempts to predict the future of school psychology are simply the most comprehensive collections of information we have seen on this topic. Following this brief discussion, we proceed with our own carefully considered predictions regarding the future of the field, which in part are based on what we are seeing now.

From Where We Were to Where We Are: The Evolution of School Psychology

Other chapters in this book, especially [Chapter 2](#), have provided an important historical context from which to understand the evolution of the field of school psychology. From its obscure and relatively recent beginnings within the larger fields of psychology and education, school psychology has struggled, grown, and finally arrived as a viable, strong, well-respected, and mature profession and scientific discipline. There is no question regarding the arrival and maturation of the field. Although school psychology is still small in comparison with other applied fields in psychology (e.g., clinical and counseling psychology), there is no denying that school psychology's influence has increased and that school psychologists are shaping practice, policy, and science at all levels: from the local school to the highest decision-making bodies, such as national agencies and federal government.

One of the constants in this professional evolution has been the process of struggle and challenge. It is apparent that school psychology has grown and matured despite—or perhaps because of—both external and internal conflicts. Like a small tree that takes root in the rocky outcrops, the processes of opposition and constantly changing conditions have led to the growth of a tough and resilient organism whose roots have sunk in deep, having weathered a few storms. As the field of school psychology has arrived in the first quarter of the 21st century, it is interesting to consider what the future evolution of the field will bring and where it will be at the close of this century. In this regard, we can begin to think about the future by considering the forces that have brought us to the present because it is quite likely that these same forces will continue to shape the field well beyond our own participation in it.

With respect to the processes that lead to change, we propose that four forces—(1) changing social conditions or challenges at both the domestic

and international levels; (2) evolving legal aspects of education and psychology; (3) increased diversity and need for culturally responsive practices; and (4) current trends in the literature, including a focus on implementation science—will continue to have a major impact on the evolution of school psychology, just as they have had on its history. We also expect that these forces will continue to be integrally connected, with changing social conditions and attitudes spawning new legal conditions, and with these forces having an impact on the practice of school psychology.

At the midpoint of the 20th century, who could have predicted that changing social attitudes and conditions regarding people with disabilities would have led to the enactment of the Education for All Handicapped Children Act of 1975 in the United States (now known as IDEIA 2004)? Who could have predicted that this federal law would serve as a major—perhaps *the* major—impetus for the field of school psychology, a field that tripled in size in the United States in only two or three decades? Likewise, when the law originated, who could have predicted that certain minor modifications to it—such as extending services to a younger age range (1986), mandating the use of functional behavior assessment in certain situations (1997), including parents as key players on the team (2004), and no longer mandating the ability–achievement discrepancy model as the primary way to document a specific learning disability (SLD; 2004)—would have such a strong impact on professional practice, training, and research in the field?

In a similar vein, it is notable that changing economic and family conditions and social attitudes have had a dramatic impact on the demographics, status, and plight of children, and that these conditions have resulted in major initiatives within the field of school psychology. For example, consider the major efforts within the field in recent years regarding the provision of services to children and youth placed at risk, focusing on culturally responsive practices, reducing school violence, addressing the mental health needs of students, and providing appropriate support for LGBTQ youth in school settings. Although important aspects of each of

these concerns were evident in the 1960s and 1970s, they were certainly not considered to be central issues within school psychology at that time, a statement that can be supported by a quick perusal of the focus and titles of journal articles and books from that era. Thus, we propose that the major changes or evolutions in the field of school psychology during the remainder of the 21st century will not occur in isolation or in a social vacuum. Rather, we believe that the major changes in the future will develop in response to the ever-changing social and demographic, domestic and international, and legal and research conditions that affect the lives of children and their families and the delivery of school psychology services. It is also important to consider that change in professional practice often precedes changes in educational policy (Grimes & Tilly, 1996). In other words, although the field of school psychology must sometimes adapt practice to fit new policies, the reverse is also true. If practitioners, trainers, and researchers promote best practice in a reflective and proactive manner, it is quite possible that such practices will become codified into policy.

The Challenges of Prognostication: Previous Attempts to Predict the Future of the Field

Before we discuss our own views on the possible future of the field of school psychology, it is important to recognize the challenges and limits of such efforts at prognostication. Ever since school psychology emerged as a distinct field, there have been attempts to look forward and predict what the future might hold for the field. It is worth reviewing some of these earlier predictions in order to put the present state of the field within some context and to develop a lens through which our own views regarding the future of the field might be viewed. Without question, the most detailed and comprehensive single compendium of prior efforts to provide viewpoints on the future of school psychology is “Perspectives on the Future of School Psychology,” a chapter in Fagan and Wise (2000, 2007) in which these scholars reviewed in depth the views of some of the most prominent writers in school psychology regarding the future of the field. The analysis that follows considers prior predictions that proved to be accurate, as well as those predictions that did not come to pass, and discusses them within the context of ever-changing conditions the field has faced, which have made such prognostication difficult. A brief review of a few of the more interesting viewpoints and predictions from this source is a useful addition to the current chapter.

Earliest Prognostications

The first well-known viewpoint or prediction regarding the future of school psychology was published in the 1930s, at a point when the field did not even have a clear identity. Leta Stetter Hollingworth (1933), one of the pioneers of school psychology, promoted her predictions regarding the future of psychological services in public schools in an article published in the

professional journal *Teachers College Record*. Her predictions were more specifically aimed at the upcoming 25 years, or the period from 1933 to 1958. Hollingworth saw a future in which educational practice and the delivery of psychological services in schools would be informed by science and rational thinking, in which psychological services in schools would become commonplace, and in which the combination of these variables would eliminate many of the problems of the time. In her own words, “The school will be fitted to the child. Suicide of pupils, in despair at failure, will be unknown. Truancy will become a thing of the past.... Special talents and defects will be considered in school placements” (p. 379). Her predictions proved to be both accurate and inaccurate, given that school psychology ultimately did emerge as a major player in public education but also that its influence obviously did not eliminate most of the major ills faced by children and youth in school settings.

With the advent of APA’s Division of School Psychology (Division 16) in 1945, and with the convening of the historic Thayer Conference in 1954 on the future of school psychology (see [Chapter 2](#) for more information), the period surrounding the midpoint of the 20th century provided new opportunities for those engaged in leadership within the burgeoning field to reflect on its progress to date and to consider what the future might bring. The general view regarding the development of the field during that time period was that school psychologists should be firmly grounded in clinical psychology and group testing, but that in the future they would rely more heavily on specialized, individualized assessment and intervention techniques (Luckey, 1951). Certainly, the role of school psychologists as skilled individual assessment specialists came to pass, although the specialized interventionist role has been accomplished with mixed success. At the Thayer Conference in 1954, new initiatives for the young Division 16 included establishing credentialing guidelines for school psychologists and differentiating doctoral from master’s- (or specialist-) level training (Fagan & Wise, 2000, 2007). Division 16 was successful in promoting important developments in state department of education credentialing patterns,

although the differentiating of doctoral and nondoctoral school psychologists never gained significant or widespread influence. In addition, prominent participants at this conference correctly anticipated future growth opportunities in the field, although it is doubtful that they could have possibly predicted the explosive growth that occurred in response to the changing educational landscape in the United States after the Education for All Handicapped Children Act was enacted in 1975.

As the field of school psychology began to come into its own in the 1960s and 1970s, the volume of professional literature increased substantially, and some of these writings addressed viewpoints regarding the future of the field. In our view, one of the most insightful efforts in this regard was Susan Gray's (1963) book *The Psychologist in the Schools*. Her book was developed to provide a broad overview of the nascent field of school psychology and to provide a template for best practice. Perhaps the single greatest contribution of this work was the inclusion of two comprehensive chapters on the school psychologist as a data-oriented problem solver. Gray's work predated the current movement in data-based decision making and problem solving by two decades and established an important foundation for what, in our view, is one of the most significant roles that school psychologists can play. She foresaw a field in which school psychologists, armed with solid training in effective assessment, diagnosis, intervention, and scientific methods, would continually use these skills within a scientist-practitioner framework to propose testable hypotheses regarding learning and behavioral problems—and then evaluate these hypotheses through carefully selecting and continually monitoring intervention efforts.

Some other important future views during this era included Hirst's (1963) prediction that there would be a strong increase in the professional workforce over the next two decades; Magary's (1967) discussion of the future emergence of the primary importance of the consultation role for school psychologists and the need for increased collaboration and cooperation on school teams and within professional organizations; Bardon

and Bennett's (1974) call for more sophisticated and extensive training of school psychologists; and Tindall's (1979) comments regarding the emergence of increasing conflict between NASP and APA, and the emerging problems of professional role constriction. In a more recent article (McIntosh et al., 2013), over 50 established researchers reported on their perceptions of the most important findings in school psychology over the past 25 years, as well as important current and future topics in research in school psychology. Interestingly, there were commonalities across time periods, with the authors noting these four major categories present across each time period of past, present, and future: data-informed practices and implementation, theory development, changing role and function, and biological bases of behavior.

Reflection on Our First Prognostications

In the first two editions of this book, we cautiously made a few predictions of our own regarding the future of school psychology, many of which we have included and updated in the next section of the chapter. How did we do with our earlier predictions? Overall, pretty well. Of course, some of these predictions were fairly easy to make. For example, we prognosticated in both of the earlier editions of this book that school psychologists would serve an increasingly diverse population, and that the diversity of school psychologists would continue to lag behind that of the populations we serve. Both of these predictions have proven to be true over time.

Another on-target prediction we made in both of the previous editions of this book was that significant new federal initiatives would continue to affect the practice of school psychology. This certainly proved true between the first and second editions of this book, with the reauthorization of IDEIA (which occurred in 2004 prior to the publication of the first edition, but the final guidance on its implementation was not published until August 2006, after the publication of the first edition) and its allowance of response to intervention (RTI) practices (in lieu of the traditional achievement–ability

discrepancy model for assessing SLDs). While special education law has not changed between the second and current edition of this book, changes to the Elementary and Secondary Education Act, with No Child Left Behind being replaced with the Every Student Succeeds Act in 2015, has had implications for education broadly.

We also predicted, rightly so, that school psychologists would continue to be in short supply. Unfortunately, this certainly has continued to be the case throughout the first decades of the 21st century, with the demand for school psychologists (both practitioners and trainers) and the job placement rate continuing to be very high. As noted in [Chapter 5](#), most areas of the country have at least some shortage of school psychologists and we do not see the demand for school psychologists lessening.

Some of our predictions were a little less accurate. For example, we had predicted in both of the previous editions of this book that public sector financial stress would further inhibit growth and require innovative service delivery approaches. While this was certainly true between the first and second editions of this book, we believe this has been less so between the second and current edition. As the United States has recovered from the “Great Recession” of 2007–2009, the financial picture for the country has improved. Of course, this does not mean that schools have all the money they need—districts are often still strapped for funding—but the overall financial stress is not at the same level as it was 10 years ago. Based on data from the National Center for Educational Statistics (Hussar et al., 2020), revenues for public schools from federal, state, and local sources has increased from the 2000–2001 school year to the 2016–2017 school year. There was a steady increase in revenue that peaked in 2007–2008 and then plateaued, dipped, and has gone back up again, such that total 2016–2017 revenues are above the earlier plateau (although federal revenues have been relatively flat since 2011–2012).

We also missed the mark to some extent by predicting in both of the previous two editions of this book that public schools would become increasingly specialized, unique, focused, and individualized. There has been

growth in the number of students who attend charter schools, with an increase from 1% of all students in 2000–2001 to 6% in the 2017–2018 school year (Hussar et al., 2020). While some charter schools are more specialized, not all are, and the percentage of children attending charter schools is still relatively small, so we do not see an overall trend of schools becoming more specialized.

As we look retrospectively at the best-known previous attempts to predict the future of school psychology, as well as our own predictions in the first two editions of this book, it is obvious that their accuracy and impact have been mixed. Some of these prior attempts ended off the mark, whereas others were right on target. With the trepidation that comes from treading these well-traveled waters of prognostication, we now move our focus of this chapter to our own current predictions regarding the future of school psychology.

School Psychology in the 21st Century: Our Predictions

The predictions offered in this section are consistent with our views regarding the future of school psychology and are implicit within the previous chapters. Some of these predictions are quite easy to make. Others are more complicated and stem from a confluence of where we think the evidence is pointing and where we think it ought to point. As we acknowledge the limitations in any prediction process, we also believe that the following prognostications, which are mostly consistent with or even a continuation of our predictions from the earlier editions of this book, represent the future of the field of school psychology.

- *School psychologists will serve an increasingly diverse population.* This prediction continues to be an easy one to make and one in which we are quite confident. As we discussed in [Chapter 4](#), the population of students and families that are served by school psychologists will continue to reflect increased diversity with regard to race/ethnicity, language, cultural background, familial composition, sexual orientation, and gender identity. White students now constitute the minority (48% as of fall 2017, down from 61% in fall 2000) of elementary and secondary school students, with this number expected to decrease to 44% by 2029 (Hussar et al., 2020). In addition, the percentage of students who are English learners (ELs) continues to increase. The percentage of EL students in fall 2017 was 10.1% (5 million students) compared to 8.1% (3.8 million students) in fall 2000 (Hussar et al., 2020).

While diversity discussions have, historically, been more focused on racial/ethnic identity, school psychologists are increasingly focusing on diversity more broadly. Perhaps most notable is the increased focus on LGBTQ students and their unique needs within the school system—

particularly given data (see [Chapter 4](#)) that these students are at increased risk for negative social (e.g., bullying) and mental health outcomes. Based on data collected by the Centers for Disease Control and Prevention (CDC) for the Youth Risk Behavior Surveillance Survey (Kann et al., 2018), LGBTQ youth make up approximately 14.6% of high school youth nationwide, with 2.4% identifying as gay or lesbian, 8% as bisexual, and 4.2% as “not sure.” Interestingly, these rates are increased from the first CDC nationwide report (Kann et al., 2016) on LGBTQ status in which 11.2% of youth identified as LGBTQ. It seems likely that this increase is a reflection of more youth being comfortable identifying as LGBTQ.

With this continuing increase in diversity, and continued recognition of the broad nature of diversity, school psychologists now, and in the future, must have the skills and cultural competence to provide effective educational and mental health services to *all* students within the schools that they serve. As noted in [Chapter 4](#), school psychologists must engage in culturally responsive practices as they work with students who are increasingly likely to have differing cultural backgrounds.

- *The diversity of school psychologists will better match that of the populations we serve.* While the diversity of school psychologists still lags behind that of the populations they serve, we believe that there is progress being made on this front and that efforts to recruit students from more diverse backgrounds into the field of school psychology are starting to take off. It is true that the diversity of the United States and, in particular of the K–12 school population, is increasing at a much faster rate than the diversity of school psychologists. As we noted above, the K–12 population is now majority non-White—however, only approximately 14% of school psychologists are individuals of color (Goforth, Farmer, Kim, Naser, et al., 2021). As noted in [Chapter 5](#), approximately 30% of specialist-level and 29% of doctoral-level school psychology students are from racially and ethnically minoritized backgrounds—thus we expect increases in the percentage of school psychologists of color. However, even with increasing percentages of

practitioners and students of color entering the field, it seems hard to imagine that the percentage of school psychologists of color will match the national percentage any time soon. While we see progress being made, we believe it is imperative to continue current efforts and to expand these efforts to recruit and retain graduate students of color in school psychology training programs.

- *School psychologists will increasingly focus on promoting social justice.*

In relation to the above predictions, we believe there is ample evidence to suggest that school psychologists are increasingly focusing on issues of social justice in their applied work, as well as in their research. This point was illustrated clearly in late spring/summer 2020 following the national outcry over the death of George Floyd in Minnesota—the death of a Black man by the actions of police. While Mr. Floyd’s death was certainly not the first to raise the call that Black Lives Matter, the protest and activism that followed his death was unprecedented, leading to calls for racial justice from individuals, communities, businesses, and organizations (see <https://blacklivesmatter.com>). NASP was one of those organizations calling for meaningful change and promoting antiracist actions with its School Psychology Unified Anti-Racism Statement and Call to Action (www.nasponline.org/resources-and-publications/resources-and-podcasts/diversity/social-justice/school-psychology-unified-anti-racism-statement-and-call-to-action) that was developed in collaboration with APA Division 16, as well as other school psychology training groups. This statement acknowledges that school psychologists have an “*ethical responsibility to engage in social justice and antiracist action*” (original emphasis) and lays out an action plan to reduce systemic racism and increase diversity in all areas and activities related to school psychology.

While there have certainly been calls to end systemic racism prior to 2020, there is something about this 2020 movement that seems different—with more people at the individual and group level—calling out racism and making commitments to antiracist actions that promote social justice. While

it is obviously too soon to understand the long-term implications of this renewed focus on antiracism and social justice, we hope that these efforts toward social justice will be sustained and will lead to meaningful changes in our field.

- *School psychologists will increasingly be involved in the delivery of mental health services and supports as more and more youth continue to struggle with mental health concerns.* This specific prediction is new to this edition of the book and one that, at least in part, we wish we did not have to make. While we certainly support the role expansion of school psychologists delivering behavioral and mental health services (within a multi-tiered systems of support [MTSS] framework), we wish the need for mental health services was not growing at such a fast-paced rate.

As discussed in [Chapter 10](#), mental health disorders remain common in youth and a sizable portion of youth do not receive the services they need to address these concerns. Perhaps most concerning, youth suicide rates are at higher rate than they have been in a number of years, with a steady increase in suicide rates for youth ages 10–14 and 15–19 since a low point in rates in 2007. While males die by suicide at a higher rate than females, the percent increase in youth suicide rates since 2007 has been higher for females than males (Ruch et al., 2019). Nationally, suicide is the second leading cause of death for individuals ages 10–24, accounting for 19.2% of all deaths in this age group (Heron, 2019).

While providing mental health treatment has not historically been a large component of school psychologists' jobs, given the landscape of today—with not only increases in some disorders but more public awareness, less stigma, and greater concern for these issues—we predict that school psychologists will have an increasing role in the treatment of mental health disorders. NASP is increasingly emphasizing school psychologists as mental health services providers (see www.nasponline.org/resources-and-publications/resources/mental-health/school-psychology-and-mental-health), and in a white paper on mental health services the authors noted that

“School psychologists are uniquely positioned to provide mental and behavioral health services in the schools” (NASP, 2015b, p. 1). While we know from recent surveys of school psychologists’ roles that direct mental health services (or even indirect mental health services) are still not a large part of what school psychologists do in practice (see [Chapter 6](#)), our prediction is that this role will continue to gradually increase over time.

Both nationally and at the state level, mental health services for youth in schools are gaining increasing attention. For example, a national Mental Health in Schools Act/Mental Health Services for Students Act, which would increase funding for schools to provide mental health services, has been proposed several times in Congress but has not passed to date. At the state level, a variety of bills have been proposed and passed to support increased mental health services in the schools and/or increase education around mental health. For example, in 2019, Utah passed a bill to allocate increased funds for mental health services in the schools, New Jersey passed a bill to include mental health education in all school levels, and Colorado passed several bills aimed at increasing capacity for mental health services and making services more accessible to students. As states hopefully devote more time and resources to comprehensively meeting the needs of youth in schools, this should lead to the expansion of mental health service in the schools.

- *School psychologists will play an increased role in crisis prevention and response.* Related somewhat to the above prediction, with an increased focus on violence in schools, including how to identify threats, how to mitigate threats, how to most effectively plan for potential crisis situations, and how to respond after a crisis occurs, we believe school psychologists will increasingly be involved in crisis prevention and response, at both the individual student level (e.g., helping a student work through bereavement) and schoolwide level (e.g., supporting the school community following a natural disaster). While school psychologists have long been involved in crisis response teams, given today’s climate, as well as the increased

recognition that school psychologists are important in comprehensive intervention planning, we see this involvement only increasing. NASP has a variety of information on its School Violence Resources page (www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/school-violence-resources) that speaks to the growing attention and interest in this area. And interested readers can find additional resources through NASP regarding crisis response in areas beyond school violence, including natural disasters, health crises, suicide prevention, and the COVID-19 pandemic. Relatedly, we expect the NASP PREPaRE model (Brock et al., 2016) will continue to play a pivotal role in preparing school psychologists to be leaders in crisis prevention and response efforts in 21st-century schools.

- *School psychologists will continue to be in short supply.* Regrettably, we predict that school psychologists will continue to be in short supply. As discussed in [Chapter 6](#), there has been a chronic shortage of school psychologists. Based on the current data, as well as trends over time, it seems likely that this shortage will continue and is likely to be greater in certain areas of the country. Specifically, we expect shortages of school psychologists will be especially problematic in rural areas, as well as areas in which there are fewer training programs. The NASP-recommended ratio of one school psychologist per 500 students will likely continue to be unmet in many school systems, particularly in districts that are less well funded and in regions in which shortages are most notable.

Related to this issue, we foresee a continued strong need not only for school psychology practitioners but also for school psychology educators, trainers, scholars, and researchers. As noted in [Chapter 6](#), faculty positions in school psychology frequently go unfilled, given the number of job openings each year and the limited supply of individuals seeking faculty positions. We predict that this faculty shortage will continue for some time and will perhaps improve only when more school psychology training

programs at the doctoral level put increased emphasis on training their graduates for faculty roles, as well as practitioner roles.

- *Role expansion in school psychology will continue, with increased emphasis on prevention, problem solving, and attention to the science of implementation of evidence-based practices (EBPs).* As we predicted in earlier versions of this book and as certainly appears to be happening, although at a slower pace than many perhaps initially thought (and hoped for), role expansion of school psychologists will continue to increase and the exclusive traditional gatekeeper or sorter roles will continue to decrease. Although some educational systems (and, frustratingly, some school psychology trainers and practitioners) will continue to pigeonhole school psychologists almost exclusively in the traditional test-and-place role, we expect that more and more school systems and school psychologists will work to expand our roles in consultative and prevention/intervention work that allows school psychologists to use their problem-solving skills. Furthermore, we predict school psychology training programs will continue to broaden their curricula and mission statements to facilitate such continued role expansion, emphasizing prevention/intervention and problem-solving orientations. As noted earlier, particularly as schools provide increased programming to meet the growing mental health needs of today's youth, school psychologists will continue to be needed in ways that more broadly support the well-being of all students.

Related to this role expansion and the increasing emphasis on EBPs, schools are also beginning to focus more on implementation science and systems change efforts. Implementation science as a field focuses on how EBPs can be successfully implemented in a specific setting/system—such as a school system—taking into account readiness to change and how the program will be implemented in the new context, including how it may need to be adapted (Forman et al., 2013). With increasing focus on transportability of EBPs, we anticipate school psychologists may be called on

to use their research and applied skills to both adapt interventions and assist in determining the effectiveness of these interventions in the school system.

In addition, as more and more schools adopt the MTSS framework for academics, behavior, and mental health, school psychologists are often being asked to take on multiple roles within this context. For example, school psychologists may be part of a team that is involved in screening youth for concerns (especially mental health concerns), as well as providing consultation to teachers and other school professionals on classroom interventions at the Tier 1 and Tier 2 levels, and involved in direct interventions at the Tier 2 and Tier 3 levels. Although the MTSS framework allows school psychologists more opportunity to be helpful by engaging in assessment/intervention at multiple levels and across multiple targets (e.g., academic, behavioral, mental health), we expect that these more diffuse roles may also present practical challenges, including increasing demands on school psychologists' time and an increasing need for broader professional competencies and expertise.

- *School psychologists will have increased access to new and effective technologies and digital tools.* As we have witnessed in recent years with the advent of new models for effective behavioral and academic supports in schools, we predict school psychologists in the 21st century will continue to have increasing access to exciting new digital tools for providing more efficient and effective services. A recent book titled *Technology Applications in School Psychology Consultation, Supervision, and Training* (Fischer, Collins, Dart, & Radley, 2019) provides a comprehensive overview of the use of technology in school psychology.

As technology is playing a big role in health care in general, we expect that this trend will be present in schools and increase over time. For example, telehealth services are increasingly being offered and promoted by health care organizations. Likewise, schools can use a similar model with experts in specific areas being able to consult/deliver services without needing to be physically present with the teacher/student. While much of

the focus on telehealth in schools to date has been on the provision of medical services (often in collaboration with a school nurse; e.g., Reynolds & Maughan, 2015), we expect that the use of remote service technologies will expand—particularly in more rural parts of the country where school psychologists may not be physically located in certain areas.

In addition to services delivered via technology, there is also an increasing number of technology advances to support the delivery of school psychology services. For example, a quick Internet search of “apps for school psychologists” leads to a whole list of possible apps that may benefit school psychologists—including a variety of behavior tracking apps. Of note, though, is that there is little research regarding the use of apps in practice and so, as with any new technology, school psychologists are encouraged to proceed with caution in adopting some of these newer tools. That said, we suggest that the One Mind PsyberGuide (<https://onemindpsyberguide.org>) is a particularly promising online tool that may help school psychologists evaluate the credibility and usefulness of available apps and other digital mental health resources that could be employed in practice.

- *Significant new federal and state initiatives will continue to affect the practice of school psychology.* This prediction also continues to fit in the “no-brainer” category of prediction. Looking forward to the middle and end of the 21st century, none of us can possibly imagine the specific social, political, and economic conditions that will result in changes to federal education laws. But if the past is a guide, we can be assured that such changes will indeed happen. The 20th-century federal legislation in the United States that most clearly affected school psychology was the passage of the original Individuals with Disabilities Education Act in 1975 (i.e., Education of the Handicapped Act). The 1990, 1997, and 2004 reauthorizations of this law also resulted in immediate responses in some aspects of school psychology practice and training. As we have discussed earlier, the inclusion of the RTI method for assessing SLDs in the 2004 reauthorization led to significant changes in the training and practices of

school psychologists. We expect further modifications to IDEIA to have similar effects over time. While we have no information at this time when IDEIA will next be reauthorized, given the length of time since the last amendment, we expect it should be relatively soon. Of course, given the extreme partisanship and increasing polarization in federal government these days, it is hard to know how long it will take for a reauthorization to pass. So, while we predict that federal and state laws will continue to impact the practice of school psychology, we also predict more challenges with coming to agreements on changes to federal education laws—and, thus, delays in Congress passing federal laws toward this end.

In addition to federal laws, other federal initiatives are likely to have an impact on the practice of school psychology. These include the specific school mental health initiatives discussed above, as well as initiatives that more indirectly relate to school psychology practice. NASP has a lengthy outline of its Federal Public Policy and Legislative Platform (www.nasponline.org/research-and-policy/policy-priorities/nasp-policy-platform) that overviews many issues that relate to federal legislation—both current and anticipated.

- *Assessment will continue to be important and will become more useful for intervention.* In reading this book, you likely have sensed two somewhat contrasting themes: that we view psychological and educational assessment of students to be a critically important activity for school psychologists, and that we dislike the models of school psychology that are rigidly focused on a gatekeeper or sorter role, or a test-and-place paradigm. We actually do not see a contradiction here—particularly in the context of the MTSS model we have been advocating for throughout this book. In our view, when working within an MTSS problem-solving framework, assessment is an essential function at all levels/tiers, so that school psychologists know who to target for services, on what level services are likely needed, and whether services are having the intended benefit. The problem, in our view, is not that school psychologists focus much of their work on assessment, but rather that the

traditional assessment enterprise is not particularly helpful for solving children's educational and mental health concerns, which means many of these tasks have kept school psychologists out of the intervention planning and delivery role. As MTSS models become increasingly prevalent in schools, we believe that assessment and evaluation will continue to be an important role for school psychologists throughout the 21st century and that this role will become increasingly expanded beyond the evaluation and classification niche, finally integrating into the delivery of intervention services. We believe we will continue to see more linking of assessment to intervention and that this linkage will become more a part of routine practice for school psychologists.

- *School psychologists will work more collaboratively with other professionals within and outside of the school setting.* As the role of school psychologists expands and is consistent with the MTSS model of service delivery in which school psychology services reach all children, we believe there will naturally be more blurring of traditional professional silos, with school psychologists working more collaboratively with teachers (regular and special education), other mental health and related professionals in the schools (e.g., school social workers, school counselors, behavior analysts), and those outside of the schools (e.g., community mental health providers, primary care providers, private practice psychologists). As interprofessional training and practice has gained traction across many different health care and related fields (see, e.g., Health Professions Accreditors Collaborative, 2019), we believe school psychologists will increasingly be called upon to work in teams that will include school-based and community professionals. While school psychologists for years have worked as part of school-based interdisciplinary teams, we see this role expanding as the role of school psychologists extend into collaborative care.

- *The accreditation of master's-level health service psychology (HSP) programs may affect the school psychology training landscape.* In [Chapter 5](#), we discussed the different paths through which one can train to become a

school psychologist. We described in that chapter how NASP approves and accredits school psychology training programs at both the specialist and doctoral levels, whereas APA accredits school psychology programs only at the doctoral level. In APA's accreditation framework, school psychology is conceptualized as one of a few HSP specialties, with the other common specialties being clinical and counseling psychology. At the time this book goes to press (circa 2022), there is change afoot regarding APA's accreditation of HSP training programs. Although APA has long conceptualized HSP as a doctoral-level profession, they are now moving toward accrediting master's-level HSP programs. This movement began in 2018, when the Council of Representatives directed APA to develop an accreditation system for master's-level programs in HSP. APA's Commission on Accreditation (CoA) formed a Master's Work Group in 2019, which was tasked with developing the Standards of Accreditation for Health Service Psychology: Master's Programs (SoA-M; APA, 2021). The SoA-M was approved by the CoA as policy in February 2021, and implementing regulations for these standards are now being developed and reviewed. The CoA anticipates that these implementing regulations will be approved and instituted within a few years (circa 2023–2024).

Much has been written about the background and context that led to APA's decision to accredit master's-level HSP programs. A comprehensive discussion of these factors is available in a special section of articles published in *Training and Education in Professional Psychology* (2019, vol. 13, no. 2), with a nice summary of the issues provided in the introductory article by Callahan (2019). The APA CoA's (2020) stated reasons for this change are that they (1) recognize many people are not accessing needed mental health services; (2) believe projections that relying on doctoral-level mental health providers is insufficient to ensure greater access to services; and (3) are optimistic that high-quality master's-level training in HSP may help increase access to more mental health services, especially for underserved and minoritized populations. This logic is similar to the points we discussed in [Chapter 10](#)—although we focused particularly on *youth*—

when making the case for why school psychologists should continue expanding their role into the realm of school-based mental health providers. In short, there is a need for more professionals who can provide more services for more people in need.

We are unsure of how, exactly, the eventual implementation of APA accreditation for master's-level HSP programs might affect the training landscape for school psychologists. But we suspect that this change may influence the nature of training at both the specialist and doctoral levels. At the specialist level, for example, it seems plausible that many NASP-approved or -accredited training programs could apply for independent accreditation through APA as master's-level HSP programs. If this happened, we might see a metaphorical double-edged-sword effect, as it could drive up interest among prospective students to apply to school psychology educational specialist (EdS) degree programs, while, at the same time, driving down the probability that students trained at the specialist level would enter full-time, school-based employment upon graduation—because they may now also be eligible (via an HSP credential) to work in settings outside of schools.

At the doctoral level, on the other hand, we suspect that the availability of APA accreditation for master's-level HSP training programs might reduce the number of future graduate students applying to school psychology doctor of philosophy (PhD) and, especially, doctor of psychology (PsyD) programs. This seems plausible because students who are more interested in practice-based careers (and less interested in intensive research training), and who prefer the opportunity to work across multiple settings (which the PhD and PsyD degrees currently confer), are likely to find HSP master's programs to be quicker and more cost-effective training routes. Again, these are only our suspicions, preimplementation. Only time will tell how the availability of APA accreditation for master's-level HSP programs will impact the training landscape of school psychology.

- *School psychologists will face unknown challenges—and adapt to these challenges to meet the needs of those they serve.* Obviously, it is hard to know what surprises will be in store for school psychologists in the future. Who would have predicted at the beginning of the 2019–2020 school year that by March 2020 the world would be in the midst of a global pandemic due to COVID-19? And that almost all schools across the United States (and throughout the world) would engage in “remote learning” for the final part of the school year? Or that pandemic conditions and related educational disruptions would persist throughout 2021 and into 2022? There was no model for a sudden switch to remote learning, no guidebook to follow. However, school psychologists, along with all of the professionals involved in educating our youth, are stepping up, figuring things out, developing resources, and adapting to the new situations and the new challenges. Not that everything is going smoothly, and certainly there are many legitimate concerns regarding how remote learning impacts youth—especially those who are most vulnerable and placed at risk for falling behind their peers. But the point is that school psychologists are rallying to support youth and one another. For example, both NASP and the Trainers of School Psychologists quickly developed a variety of resources in response to this challenging time (www.nasponline.org/resources-and-publications/resources-and-podcasts/covid-19-resource-center; <https://tsp.wildapricot.org/COVID-Resources>). We do not know what misfortunes or adverse events will be in store for school psychologists in the future that will necessitate quick thinking and adaptation, but we are confident that school psychologists are resilient and will be up for adapting as the next unexpected challenges come their way.

- *The 21st century includes a bright future for school psychologists.* As we have noted in the previous editions of this book, we continue to see school psychology as an important field that bridges education and mental health. We have no reservations in recommending a career in school psychology to prospective professionals who possess the requisite skills, personal

resiliency, commitment, and adaptability to be successful, and who are motivated by a desire to help shape the future of children and their families through innovative education and mental health service delivery. We believe it is (still) an exciting time to be a school psychologist and that school psychology continues to be one of the best kept secrets in both education and psychology!

Discussion Questions and Activities

1. Some previous efforts to prognosticate or predict the future of school psychology have been incorrect. Why is the task of prognostication regarding this field so difficult, and what are some of the events that have moved the field in ways that were never previously envisioned?
2. We have made some projections or predictions regarding what we believe will be important trends and developments in the near future of the field of school psychology. After reviewing our list of predictions, what would you add to or delete from this list based on your own experiences and conditions in your own area? Why?
3. One of the predictions we have made is that federal and state initiatives will continue to have a strong influence on school psychology. Explore some of the education initiatives (e.g., proposed legislation, state office of education guidance) in your state and summarize how these may influence the practice of school psychology.

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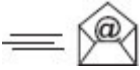
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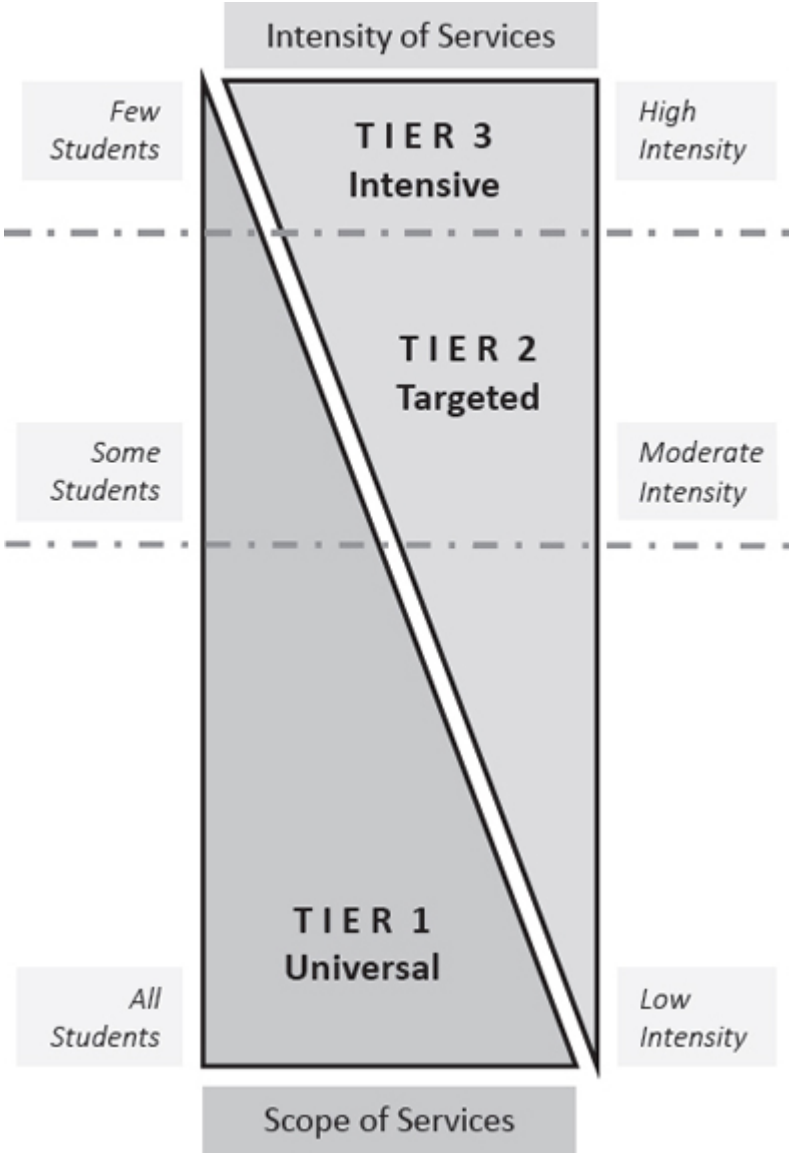
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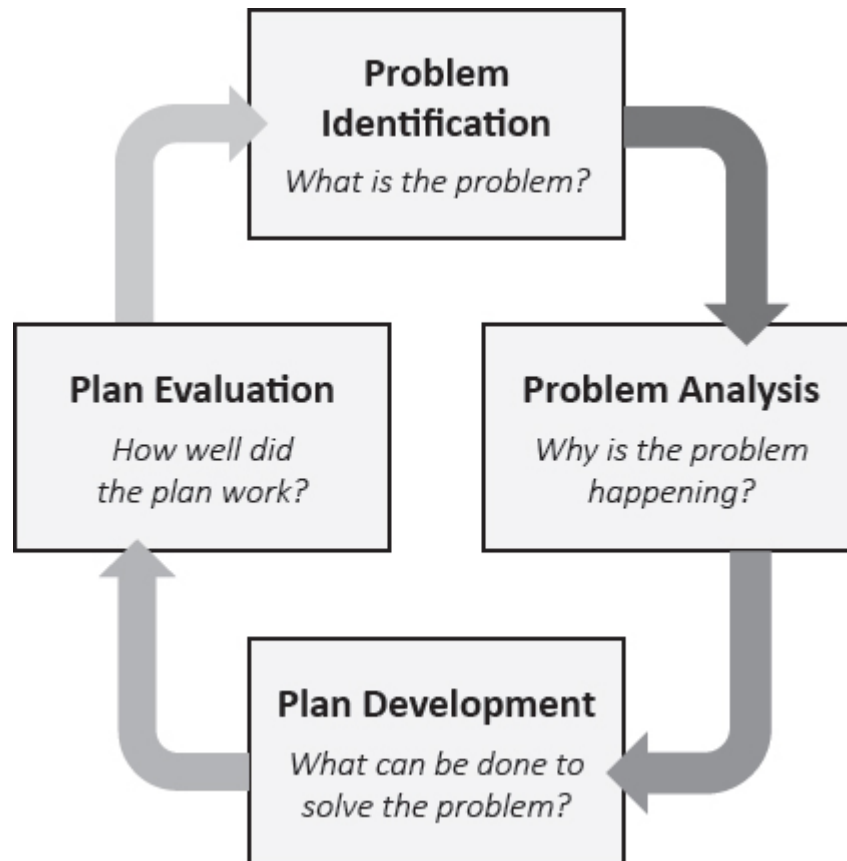


The figure shows an upright right angle triangle and an inverted right angle triangle which forms a rectangle. The upright right triangle represents the scope of services, and the inverted right triangle represents the intensity of the services. A dotted horizontal line cuts the two triangles together. The bottom of the upright triangle represents 'all students (Tier 1 universal)', the

middle represents some students, and the top represents a few students. The bottom part of the inverted right triangle represents low intensity, the middle represents moderate intensity (Tier 2 targeted), and the top represents high intensity (Tier 3 intensive).

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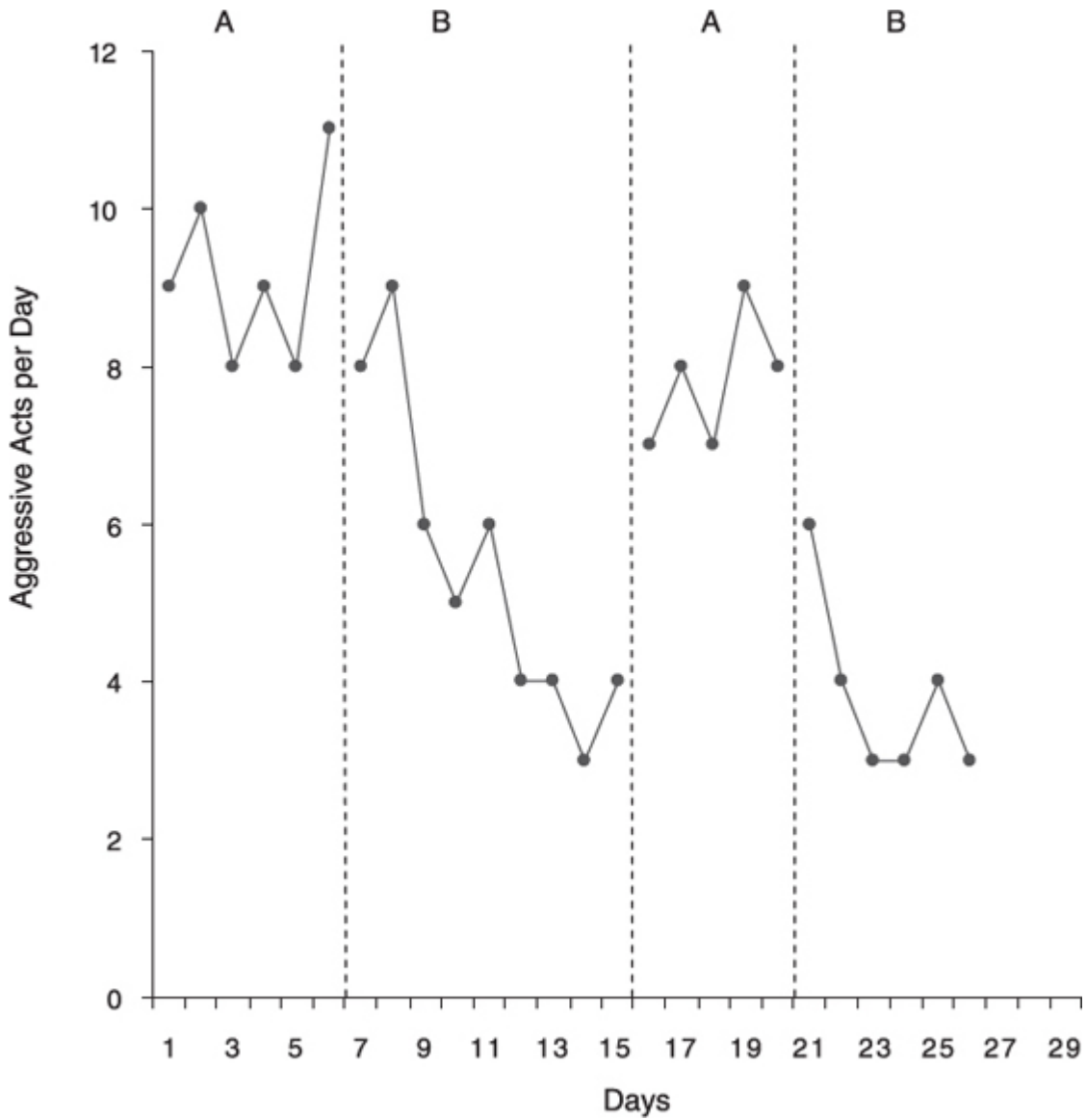
Extended image description for Figure 3.2



Four steps are identified in the cycle: 1. Problem identification: What is the problem? 2. Problem analysis: Why is the problem happening? 3. Plan development: What can be done to solve the problem? 4. Plan evaluation: How well did the plan work?

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Extended image description for Figure 12.1

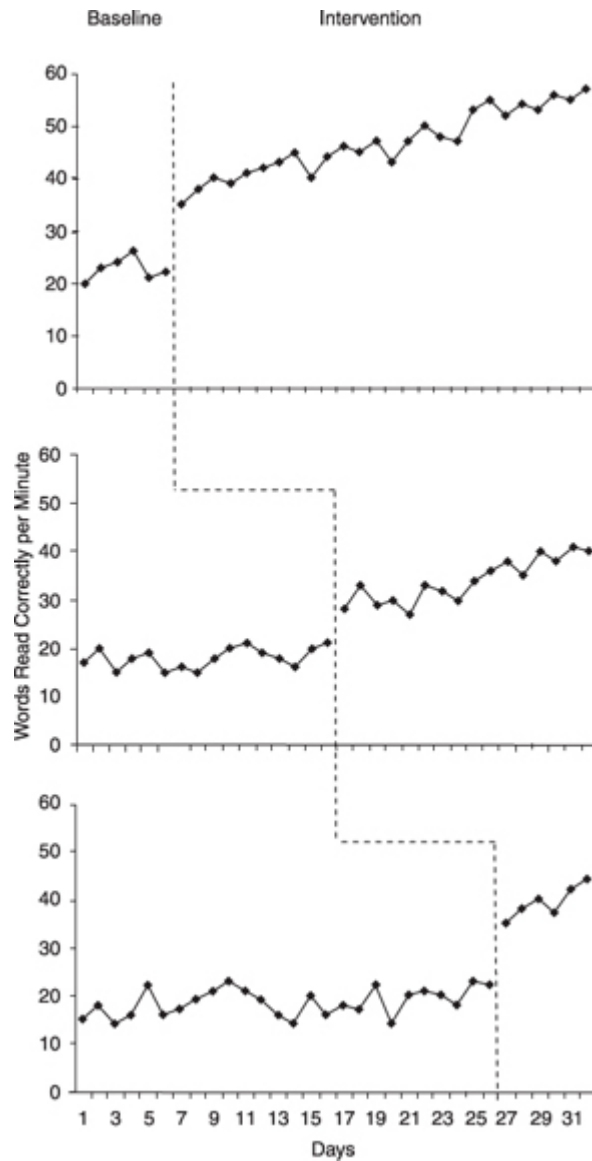


The horizontal axis represents the days with values ranging from 1 to 29. The vertical axis represents Aggressive acts per day. Three dotted lines are marked on the horizontal axis to represent A, and B. The value range between 1 to 7, and 16 to 21 on the horizontal axis are marked as A. The value range between 7 to 16, and 21 to 30 are marked as B. The data inferred

from the figure are as follows. Day 1: 9, Day 2: 8; Day 3: 9; Day 4: 9; Day 5: 8; Day 6: 11; Day 7: 8; Day 8: 9; Day 9: 6; Day 10: 5; Day 11: 6; Day 12: 4; Day 13: 4; Day 14: 3; Day 15: 4; Day 16: 7; Day 17: 8; Day 18: 7; Day 19: 9; Day 20: 8; Day 21: 6; Day 22: 4; Day 23: 3; Day 24: 3; Day 25: 4; Day 26: 3. All values are estimates.

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Extended image description for Figure 12.2



Three graphs are shown. The horizontal axis represents the days with values ranging from 1 to 31. The vertical axis represents words read correctly per minute with values ranging from 0 to 60 in increments of 10. The axes for the three graphs are the same. In the first graph, a vertical dotted line is drawn perpendicular to the horizontal axis at 6. The trend at the left of the

dotted line starts at 20 on day 1, reaches 28 on day 4, and ends at 22 on day 6. The trend on the right of the dotted line that represents the intervention starts at 35 on day 7, reaches 55 on day 26, and ends at 58 on day 31. In the second graph, the vertical line from the first graph passes down to the second graph and moves horizontally and then moves down vertically at 17 on the horizontal axis. The trend at the left of the dotted line starts at 18 on day 1, reaches 22 on day 11, and ends at 21 on day 16. The trend on the right of the dotted line that represents the intervention starts at 30 on day 17, reaches 30 on day 24, and ends at 40 on day 31. In the third graph, the vertical line from the second graph passes down to the third graph and moves horizontally and then moves down vertically at 27 on the horizontal axis. The trend at the left of the dotted line starts at 15 on day 1, reaches 12 on day 14, and ends at 22 on day 26. The trend on the right of the dotted line that represents the intervention starts at 38 on day 27 and ends at 48 on day 31. All values are estimates.

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