

Book Review

Browder, D. M. & Spooner, F. (2014). *More Language Arts, Math, and Science for Students with Severe Disabilities*. Baltimore, MD: Paul H. Brookes Publishing Co.

ISBN: 978-1598573176 Cost: \$50 Format: Paperback. Reviewed by Kathryn M. Kestner, West Virginia University.

More Language Arts, Math, and Science for Students with Severe Disabilities (2014), edited by Diane Browder and Fred Spooner, aims to help educators keep pace with the evolving demands of teaching students with severe disabilities. The editors are experienced researchers in special education and evidence-based instruction. A new wave of federal standards for education curriculum and assessment has emerged since the previous edition of this text was published in 2006 (*Language Arts, Math, and Science for Students with Severe Disabilities*). The education standards for children with severe disabilities are now more congruent with general education grade-level content. Browder and Spooner express optimism about teaching educators to use evidence-based practices, writing, "It is time to let students once again surprise us by what they can do" (p. xxiv).

Thirty-five authors contributed to this book. Many of the chapters were collaborations between special and general educators. The book has approximately 328 pages, with fourteen chapters separated into four sections. The publisher's website provides downloadable documents for educational use (www.brookespublishing.com/browder/eforms), study questions, and additional activities for instructors (www.brookespublishing.com/browder). Each chapter opens with a vignette to provide context. The vignette is followed by an overview of the relevant research literature, which provides a background for the empirically supported recommendations. Finally, the authors provide practical samples, recommendations, and considerations for implementation. Each chapter ends with a reference section providing additional resources.

There are three chapters in Part 1, "Greater Access to General Curriculum." In chapter 1, Browder and Spooner advocate for inclusion of students with severe disabilities and increasing instruction of academic skills. They provide a context for the new educational guidelines prompted by policies such as No Child Left Behind in 2001 (PL 107-110) and state adoption of the Common Core Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), identifying an increased emphasis on

academic instruction for students with disabilities in the United States. Instruction for students with disabilities previously emphasized functional skills. Educators are now required to teach “grade-aligned” or “standards-based” material. The authors argue, however, that the increased focus on building academic skills should not completely replace instruction of functional skills.

Chapter 2 is on the topic of embedded instruction in general education classrooms. Embedded instruction involves providing instructional trials to individual students based on empirically validated techniques. Learning trials should be based on each student’s learning goals as identified in the individualized education program (IEP) and Common Core curriculum standards. An important aspect of embedded instruction is routine data collection on student performance to make data-based instructional decisions. The authors summarize the research supporting embedded instruction across a variety of age groups, subject areas, and skills. They provide a four-step process for planning and executing embedded instruction. The authors explain the importance of each step and practical considerations when implementing them. They emphasize the importance of planning for generalization and maintenance of skills. The chapter includes sample data sheets for assessing baseline performance and tracking progress.

Chapter 3 includes an overview of the Common Core Standards. Common Core standardizes grade-level curriculum goals for adopting states and was designed with students’ career and college readiness in mind. The authors summarize the structure of the Common Core Standards, including tables displaying examples of the standards for different subject areas. The standards outline content requirements but do not include instructional guidelines for how to teach the content. As with previous curriculum standards, states can write alternative standards based on Common Core for students with moderate and severe disabilities. The chapter authors acknowledge the need for special educators to have professional support for incorporating these new standards and provide suggestions for the reader to explore, including websites with literature, videos, and other Common Core resources.

Part 2, “Teaching Common Core Language Arts,” includes four chapters on teaching Common Core Standards in language arts. In chapter 4, which focuses on comprehension, the authors discuss an overview of teaching perspectives from both general education and special education. The Common Core Standards call for mastery of comprehension skills of both literary and informational texts. There is a range of options available for teachers selecting text with age-appropriate material, and the authors discuss additional considerations

for selecting and adapting materials to ensure accessibility for all students. The authors give suggestions for planning read-aloud activities, selecting and adapting text, writing comprehension questions, selecting student response requirements, using instructional methods to teach comprehension, and using peer readers.

Chapter 5 deals with reading instruction for students who are lacking or who demonstrate difficulty using a functional vocal repertoire. As the authors discuss, the Common Core expectations for early literacy provide guidelines for the sequencing of prerequisite and foundational reading instruction. According to the National Reading Panel (2000), there are five components to reading instruction: print concepts, phonological awareness, phonics, word recognition, and fluency. The authors review the research literature using systematic instruction, shared stories, and scripted curricula with learners with severe disabilities. They provide practical recommendations on the use of prompting procedures, shared stories, appropriately adapted materials, task analyses, commercially available direct instruction materials, and the incorporation of augmentative or alternative communication devices. The chapter concludes with recommendations for creating lesson plans incorporating evidence-based teaching practices and the use of objective and measurable responses. The authors provide sample instructional materials and procedures, methods for data collection, and helpful hints on the use of technology for developing materials or delivering instruction.

Chapter 6 focuses on instruction of early reading comprehension. Researchers have recently begun to implement evidence-based reading curricula with students with severe disabilities. One common finding is that these learners require extensive practice over time and specific programming for generalization and maintenance of skills. Though more research is still needed, the authors suggest teachers select an empirically validated reading program as the base intervention and add individualized modifications and additional practice as needed. The authors discuss several challenges that often need to be addressed when extending evidenced-based reading curricula to students with severe disabilities.

Chapter 7 deals with the instruction of written expression. The authors identify the lack of a comprehensive research base for teaching writing skills to individuals with moderate and severe disabilities. The authors recommend four steps for developing instructional programs for writing. They suggest teachers review the literature for students with mild (or no) disabilities, consider the limited research with moderate to severe disabilities, consider adapting instructional practices that have been validated for teaching other skills besides

writing, and monitor individual progress. They emphasize that while this is probably a suitable method for selecting a starting point for writing instruction, teachers will need to continue making data-driven decisions for individual students. They provide some specific recommendations for selecting instructional approaches, assessing baseline writing skills, and making writing a reinforcing activity.

Part 3, "Teaching Common Core Mathematics and Teaching Science," includes four chapters on teaching mathematics and science. Chapter 8 focuses on teaching early numeracy skills. These elementary skills are necessary for understanding and performing more complicated math skills and for many "real-life" uses of math. Research shows a strong correlation between early math skills and later success with math curricula. The authors point out that many children who enter general education develop basic math skills before entering school; however, children with disabilities often require "direct and intensive instruction." They present two evidence-based methods: systematic instruction and explicit instruction. The authors suggest special education teachers combine the two. They share steps for teaching early numeracy skills and provide sample instructional scripts and lessons. The authors also suggest that numeracy skills can be taught as individual lessons before, or concurrently with, Common Core lessons in mathematics.

Chapter 9 discusses teaching grade-aligned mathematics. At the beginning of the chapter, the authors present a table proposing how each of the Common Core skills relate to preparing students with disabilities for life after high school. Like the previous chapter, this chapter emphasizes the importance of basic math skills for building more advanced skills, as well as a lesson plan template.

Chapter 10 and Chapter 11 focus on the topic of teaching science. Classroom science typically involves teaching both content knowledge and inquiry skills (i.e., the scientific method). Curriculum standards have shifted to now emphasize "engaging in scientific and engineering practices." Instruction involves leading students through the process of developing, investigating, and evaluating hypotheses. There is limited research on teaching science to individuals with severe disabilities. The authors provide a helpful task analysis of the inquiry process as outlined by The National Research Panel's 8-part framework (2011). They provide a sample of how one might apply these steps to lesson plan for students with disabilities. Chapter 11 continues the discussion of science instruction and focuses on teaching scientific concepts. In the absence of clear empirical recommendations, the authors suggest teachers select techniques from the evidence base in other skill areas. They promote the use of systematic instruction

techniques including the use of a time delay for teaching vocabulary, task analyses for chained skills, incorporating embedded instruction, and developing computer-assisted instruction.

Part 4, "Alignment of Curriculum, Instruction, and Assessment," opens with a chapter distinguishing between the characteristics and purpose of three types of assessment: formative, interim, and summative. The authors suggest each assessment type serves a particular purpose and teachers should incorporate all three. The new content standards present new challenges for special education teachers, who were previously not expected to focus on grade-aligned academic instruction for students with severe disabilities. The authors suggest some teachers may need to seek support for understanding curricular content and to learn new instructive techniques. They point to additional resources from The National Center and State Collaborative to support special education teachers as they shift to accommodate these new standards.

The authors of chapter 13 argue for inclusive education systems, which combine individuals with disabilities and their same-age non-disabled peers in the same classroom. The authors provide convincing evidence of the benefits of inclusion to both disabled and non-disabled students. They provide an overview of how general education teachers, special education teachers, and other professionals (e.g., speech pathologists) can collaborate as a team in an inclusive environment. They also provide specific recommendations for accomplishing this at the administrative and process levels. Finally, the authors provide a list of specific action items for schools wishing to initiate or improve inclusion practices.

The authors of the final chapter present an overview of several factors. They recount the shifts in curricular philosophy that have led to the current paradigm. The authors acknowledge that the research literature is still "catching up" to establish best practices for teaching grade-aligned objectives for students with disabilities. However, they also encourage educators to feel confident when extending evidence-based practices from other areas to meet new content stands. It is currently unclear what impact grade-aligned instructional standards will have on individuals with severe disabilities as they reach adulthood. The authors propose that long-term outcome measures are needed as well as data on social validity on the impact these standards have on individuals' quality of life while they are in school.

In conclusion, *More Language Arts, Math, and Science for Students with Severe Disabilities* provides practical guidance for educators teaching grade-aligned academic content to students with disabilities. A wide range of contributors provide expertise on extending

research-based instructional practices to a variety of academic subjects. Each chapter gives practical advice, examples, and suggestions for additional resources to help teachers successfully incorporate effective instruction practices into their classrooms.

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