

## Identifying Commonly Used Literacy Instructional Practices for Students with Extensive Support Needs: Implications from a Control Group Analysis

Pam Hunt, Kathleen Mortier, Corrine Aramburo, Danielle Fleming, and  
Lakshmi Balasubramanian  
San Francisco State University

*Abstract*: This study explored the characteristics of commonly used early literacy instruction designed by special education teachers for students with extensive support needs (ESN). The 15 special education teachers and 29 students were participants in a randomized controlled trial investigating the effectiveness of an early literacy intervention developed for students with ESN. The students in this study were members of the study's control group and received literacy instruction designed by their special education teachers. The study was conducted in 14 elementary schools across 10 school districts and three states. Literacy instruction was implemented in general education classrooms with peers participating in the lessons as "reading buddies." The results suggest that teachers in the control group placed the greatest instructional emphasis on vocabulary and comprehension development. However, there was wide variation among teachers both within and across states in their selection of other literacy instructional components to address. These findings are discussed in terms of their broader implications for special education teacher preparation, school district policy, and in-service training of teachers serving students with ESN.

Since the late 1970s, a person-centered ecological curricular framework has guided the selection of educational goals, assessment approaches, and instructional contexts for students significantly affected by intellectual disabilities, autism, or multiple disabilities (Alper, 2003; Ford et al., 2001; Hunt et al., 2012; Trela & Jimenez, 2013). With an ecological and person-centered approach, educational goals for students with extensive support needs (ESN) are not driven by a particular set of standards

and curricular sequences, but rather by the students' achievement of individualized quality-of-life outcomes while they participate as valued members of their school communities.

However, with the emergence of the academic standards-based reform movement in the late 1990s, the role that an ecological curricular framework plays in curriculum development and instruction has been called into question (Ayres et al., 2011; Hunt et al., 2012; McDonnell et al., 2013). The amendment to the Individuals with Disabilities Education Act (IDEIA) in 2004 raised further questions. This federal law required all students with disabilities to participate in the general education curriculum and be assessed annually on their progress in meeting grade-level standards in English language arts, math, and science. Some educators and researchers were concerned that this mandated focus on meeting academic curricular standards would replace an ecological framework in guiding curriculum development. They envisioned a shift in the focus of educational programs for students with ESN from teaching functional, meaningful activities and routines that in-

Danielle Fleming is now at Fortune School of Education, Sacramento, California. Lakshmi Balasubramanian is now at the Graduate School of Education at Stanford University, California. This research was sponsored by Grant R324A150021 from the Institute of Education Sciences, National Center for Special Education Research. The article does not necessarily reflect the positions or policies of this funding agency, and no official endorsement should be inferred. We thank the teachers, paraprofessionals, and students who participated in this research. Correspondence concerning this article should be addressed to Kathleen Mortier, Department of Special Education, San Francisco State University, San Francisco, CA 94132. E-mail: kmortier@sfsu.edu

creased and enhanced performance in typical settings to teaching “splinter skills” in language arts, mathematics, and science that did not promote short-term or long-term quality of life goals (Ayres et al., 2011; Brady, 2013; Brown, 2013; Dymond et al., 2007). However, others contended that mandated access to the general education curriculum promoted full educational opportunity and argued for the relevancy of the general education curriculum for students with ESN (Browder, Spooner, et al., 2006; Courtade et al., 2012; Hunt et al., 2012; Wehmeyer, 2006). In addition, there was growing evidence that the students could learn complex academic content and do so in general education classrooms alongside their peers without disabilities (Hudson et al., 2013; Hunt et al., 2020).

It has been suggested that an ecological curricular framework with a focus on quality of life outcomes could be reconciled with the development and instruction of standard-based academic goals for students with ESN (Hunt et al., 2012; McDonnell et al., 2013; Trela & Jimenez, 2013). This reconciliation could be achieved if the conceptualization of “quality of life” outcomes was expanded beyond home, friendships, community participation, and work to include academic outcomes that are life enriching because they introduce the student to the worlds of literature, art, science, history, and culture as well as academic outcomes that promote lifelong learning. In addition, academic goals selected through a person-centered planning process would represent meaningful knowledge and skills that are tailored to students’ individual needs and interests and are applicable to their everyday lives (Hunt et al., 2012; McDonnell et al., 2013; Trela & Jimenez, 2013).

### **Literacy Instruction for Students With ESN: Changing Assumptions and Expectations**

Historically, literacy instruction for students with ESN has focused on reading words that occur commonly in everyday life rather than on the components of effective early literacy instruction recommended by the National Reading Panel (NRP, 2000; e.g., phonemic awareness, phonics, vocabulary, and comprehension) and the National Early Literacy Panel (NELP,

2008; Browder, Wakeman, et al., 2006; Keefe & Copeland, 2011). One likely explanation for this historical lack of emphasis on comprehensive literacy instruction was the assumption that students with ESN were not capable of benefitting from that instruction (Keefe & Copeland, 2011; Kliever et al., 2004). The assumption may have been that such instruction would result only in the acquisition of “splinter skills” in reading (e.g., naming letters of the alphabet, knowing some letter sounds); and, therefore, instructional time would be better spent on teaching sight words that would increase independence and safety in school, home, work, and community settings (Ayres et al., 2011; Browder, Gibbs, et al., 2009).

Since the passage of IDEA in 2004, there has been a substantial increase in research on literacy interventions for students with ESN—including randomized controlled trials investigating the efficacy of comprehensive early literacy programs (e.g., Allor et al., 2014; Browder et al., 2012; Hudson & Test, 2011; Hunt et al., 2020). Hudson and Test (2011) evaluated the evidence base of shared story reading interventions to promote literacy for students with ESN. They defined shared story reading as a practice to promote access to age-appropriate literature through “reader-listener interaction in which a story is read aloud and student interaction with the reading and the story is supported” (p. 36). Literacy was defined as “skills that increased access to age-appropriate literature (e.g., vocabulary, comprehension), including emergent literacy skills” (p. 36) such as increased understanding of the conventions of reading (e.g., book orientation, opening the book to begin the story, and page turning to keep the story going) and print awareness (e.g., following print as it is read). Results of their review indicated a moderate level of evidence for using shared reading to promote literacy for students with ESN. In addition, it can be argued that outcomes associated with this instruction—such as increased understanding of the functions of books, access to the same literature that other students are reading, and increased vocabulary and listening comprehension within a shared-reading context—are not only useful and life enriching, but also include students as members of the “literate community” (Kliever et al., 2004).

Although there is evidence that shared reading instruction promotes valued literacy outcomes for students with ESN (Toews et al., 2021), it is not designed to address the goal of *increased independence* as readers. The value of acquiring independent reading skills, even at an early reading level, is significant. Independent reading not only increases access and independence, it also provides a vehicle for cultural and social engagement, an expansion of interests, and life-long learning. During the last two decades, there has been increased emphasis on research-based early literacy instruction to increase students' reading success (Every Student Succeeds Act [ESSA], 2015; IDEIA, 2004; NELP, 2008; NRP, 2000). This increased emphasis has been associated with an emerging body of research documenting the effectiveness of multicomponent reading interventions for students mildly to severely affected by intellectual disabilities and autism that address the building blocks of early reading instruction identified by the NRP (2000; see Afacan et al., 2018, for a review).

One example is the research conducted by Browder and her colleagues at the University of North Carolina at Charlotte (Browder et al., 2008, 2012). The comprehensive early literacy intervention that they designed and evaluated, Early Literacy Skills Builder (ELSB), addressed the core components of effective early literacy instruction identified by the report of the NRP (2000), while using instructional methods and systematic prompting procedures found to be effective with students with ESN (Browder, Ahlgrim-Delzell, et al., 2009). In addition, it addressed the access needs of nonverbal responders who can use a variety of behaviors to respond to instruction (e.g., pointing to symbols on a response board or pictures in books or selecting symbols on a speech generating device). ELSB comprises both interactive lessons addressing phonological awareness, phonics, vocabulary, and comprehension and a shared story reading component using literature from the students' grade level (adapted when necessary) to teach them to interact with books and further develop listening comprehension and vocabulary skills. Results of the efficacy studies conducted by Browder and her colleagues (2008, 2012) indicated that students in the group receiving ELSB instruction significantly outperformed students in the control group

who received the Edmark Reading Program on all measures of early literacy skills with the exception of vocabulary development.

The results of this growing body of efficacy research on comprehensive early literacy instruction for students with ESN are promising. However, without evidence that the students can learn to read in the context of general education, they will likely continue to be served primarily outside general education classrooms (Copeland & Keefe, 2019; Toews & Kurth, 2019). This is the case despite evidence of effective academic instruction delivered to students with ESN in general education classrooms (Heinrich et al., 2016; Hunt et al., 2020; Kuntz & Carter, 2019). Research is needed to investigate both the efficacy of a comprehensive literacy intervention for students with ESN as well as its implementation in general education settings. One pathway for accomplishing this is to conduct conceptual replication studies (Bonett, 2012; Coyne et al., 2016) that *replicate* a promising early literacy intervention for students with ESN and *extend* that research to general education classrooms (Hunt, 2019). Such a conceptual replication study was conducted by Hunt and her colleagues at San Francisco State University and the University of Kansas (Hunt et al., 2020). Its purpose was to replicate the ELSB efficacy research and extend the investigation to general education classrooms with students in the class participating in the small group lessons. Eighty students with ESN in 16 schools in three states participated in the study. Students randomly assigned to the intervention group received ELSB instruction; while students in the "business-as-usual" control group received instruction planned by special education teachers to address the students' IEP literacy goals. Literacy assessments were conducted in five waves scheduled across the school year. Results showed that students receiving ELSB instruction made greater gains in assessed literacy skills than students in the "business-as-usual" control group. These findings provided evidence that students with ESN can benefit from comprehensive early literacy instruction and can do so when it is delivered in general education settings with peers participating in the lessons.

### *Moving Forward: The Purpose of Our Study*

Recent explorations of teachers' perspectives on literacy instruction for students with ESN suggest that there is a substantial divide between research-based approaches to early literacy instruction and the literacy practices that are currently being implemented (Ruppar et al., 2011; Ruppar et al., 2015). Ruppar and her colleagues (2011) surveyed 69 teachers of students who used AAC and took the Illinois Alternate Assessment to investigate their perspectives on appropriate skills and settings for literacy instruction for their students and the factors influencing their decisions. Survey results indicated that the teachers valued literacy instruction addressing functional life skills (e.g., accessing text in the home and community; following a picture schedule) over literacy instruction focused on the core components of early literacy instruction identified by the NRP (2000) and NELP (2008) reports and preferred special education classrooms and community settings for that instruction. In a later study (Ruppar et al., 2015), the researchers' examined the factors affecting teachers' decisions about literacy for secondary aged students with ESN. The results of this qualitative study suggested that there are multiple influences on teacher decisions including teachers' beliefs about teaching and learning, their expectations about student learning, their level of self-efficacy in providing effective literacy instruction, and a variety of contextual factors (e.g., the availability of professional development and appropriate early reading materials, staffing for multicomponent early reading instruction, and district curricular policies and supports).

Understanding teachers' current literacy practices and their perspectives on literacy instruction is an important first step in moving forward with efforts to promote widespread implementation of research-based early literacy instruction for students with ESN. Barriers to effective early literacy instruction identified by teachers (e.g., lack of educator preparation to teach early literacy, lack of availability of materials and staff, and lack of district support and training; Ruppar et al., 2015) must be addressed for progress to be made. In addition, without an understanding of teachers' current literacy practices, the field cannot pinpoint the areas that need the greatest

attention for training, resources, and support or measure the growth that will occur over time as barriers to effective early literacy instruction are addressed. Investment is needed in research to explore the range of literacy practices for students with ESN currently being implemented. In addition, an accurate assessment of current literacy practices can only be achieved if it extends to educational programs across districts and states and looks at potential differences in instructional focus and literacy practices for students with ESN who receive that instruction in general versus special education classrooms.

The purpose of the present study was to contribute to these early assessment efforts by exploring the characteristics of the literacy instruction designed by 15 special education teachers for 29 students with ESN in 14 elementary schools across 10 school districts and three states. The teachers in this study were participants in the randomized controlled trial (RCT) described above that examined the efficacy of an early literacy program, ELSB (Browder et al., 2012), when it was implemented in general education classrooms with peers participating in the small group lessons (Hunt et al., 2020). However, the literacy instruction examined in the present study was not the ELSB lessons. Instead, we analyzed the instruction designed by the special education teachers for their students in the "business-as-usual" (BAU) control group that consisted of lessons and reading activities that the special education teachers had designed and used during the school year to address the literacy goals in their students' IEPs. We propose that the results of our analysis can make some contribution to efforts to identify and evaluate commonly used literacy instructional practices implemented with students with extensive support needs despite the atypical context in which they were implemented (within the context of an RCT and in general education classrooms with peers participating in the lessons). This exploratory study asked two questions:

1. What were the characteristics of the literacy lessons designed by special education teachers for their students with ESN who were in the control group of an RCT and who received the instruction in general education classrooms with peers participating in the lessons?

2. To what extent did the literacy lessons address the core components of effective early literacy instruction identified by the NRP (2000) and the NELP (2008) reports?

## Method

### *Participants*

*Schools.* The RCT was conducted during the 2016-2017 school year in 16 schools and 11 school districts across a Pacific Coast state and two Midwestern states. Fourteen of the 16 schools participated in the present study. Two schools did not participate (one school in the Pacific Coast state and one in a Midwestern state) because of researcher failure to record adequate descriptions of BAU instruction when completing the BAU implementation fidelity checklist. The eight elementary schools in the Pacific Coast state had an average of 474 students (range: 290–767). On average, 53% of the students at each site (range: 17–74%) were eligible for free or reduced-cost lunch. Thirty-eight percent of the students were Latinx American (range: 6–67%), 32% were Asian American (range: 5–61%), 16% were European American (range: 4–33%), 7% were two or more races (range: 2–117%), and 6% were African American (range: 1–19%); (California Department of Education, 2018). Five of the eight schools were in urban school districts and three were in large suburban districts (National Center for Education Statistics [NCES], 2018). The six elementary schools in the Midwestern states had an average of 417 students (range: 286–525). Fifty-eight percent of the students at each site (range: 21–94%) were eligible for free or reduced-cost lunch. On average, 51% of the students in the participating schools were European American (range: 13–79%), 25% were Latinx American (range: 6–80%), 15% were African American (range: 3–33%), 7% were two or more races (range: 3–13%), and 3% were Asian American (range: 1–7%). All of the Midwestern schools were in urban districts (NCES, 2018).

### *Students*

*Students with Extensive Support Needs.* As described above, 80 students moderately to severely affected by intellectual disabilities and autism

(students with ESN) participated in the RCT examining the efficacy of the ELSB early literacy intervention in general education classrooms. Between four and eight students with ESN at each school site participated in the study. These students had been matched into pairs independently for each teacher based on the disability (intellectual disability or autism) listed on their IEPs, and their verbal status (verbal or non-verbal), gender (male or female—matched to the extent possible), and grade (Grades K-1 or 2-4) before randomly assigning them to receive ELSB or BAU instruction.

Students in the RCT were eligible to take their state's alternate assessment. In addition, they met all of the inclusion criteria for participation in the Browder et al. studies (2008, 2012) including (a) affected by moderate to severe intellectual disabilities as reflected by developmental screening by school district psychologists, (b) enrolled at the time of the study in Grades K-4, (c) read below the first-grade level as determined by a review of school records, (d) had adequate hearing and vision to respond to curricular materials and instruction, and (e) responded to instruction in English. After discussion with Browder and her research colleagues and based on their recommendation, we added the following inclusion criteria: (f) demonstrated picture discrimination skills as determined by assessments conducted by the special education teacher or speech/language pathologist, and (g) able to sit for short periods of time for instruction based on special education teacher observation and student records.

*Reading Buddies.* At each school site, participating students with ESN were assigned to age-appropriate general education classrooms (typically two students with ESN in each classroom). Both students in each classroom received ELSB instruction only or BAU instruction. Each of the students had a general education peer partner who participated with them in the literacy lessons. The general education students were recruited to participate as “reading buddies” by the special education teachers during a whole-class presentation at the start of the school year. It was explained that students who wanted to be reading buddies had to take turns, but anyone who wanted to be a buddy could. The majority of the students in each class indicated that they



wanted to be a reading buddy; however, only students who brought signed permission forms to school could do so. On average, 66% of the students in each class (range: 16% to 96%) served in this role. Each day, the opportunity to be a buddy was rotated through the list of volunteers. There were no differences in the reading buddy role for peers in the treatment and BAU control group. Buddies did not take an instructional role; however, they served as proficient models of targeted emergent reading behaviors, thereby providing repeated opportunities for observational learning by the students with ESN (Bandura, 1986). They participated with their partners with ESN in all lesson activities including answering questions and taking turns to demonstrate learning.

### *Educators*

*Special Education Teachers.* The 15 special education teachers had a graduate-level Education Specialist Credential in Moderate/Severe Disabilities (Pacific Coast state) or an elementary teacher education license at the baccalaureate level with a graduate-level Endorsement in Special Education-Moderate/Severe Disabilities (Midwestern states). They had served as special education teachers for an average of eight years (seven years in the Pacific Coast state and nine years in the Midwestern states) with a range of 2-26 years of teaching.

*General Education Teachers.* General education teachers were recruited at the end of the school year preceding implementation of the research the following school year. Recruitment procedures included informal presentations at participating school sites by research team members with follow-up conversations between the special education teachers and potential participants among the general education teachers. Participants in the present study were the 15 teachers who worked with the 15 participating special educators to integrate BAU instruction into their classroom's literacy period. The general education teachers' role was to assist in the recruitment of reading buddies, manage the calendar identifying the reading buddy for each day, and

collaborate with the special education teacher to determine the ways in which BAU instruction would be integrated into the classrooms' literacy activities. The majority of the BAU instruction was delivered in small groups by special educators (see details below); however, in approximately 30% of the classrooms, instruction was embedded within the reading lessons delivered by the general education teacher—with adapted materials and support to address the students' literacy goals.

### *Classroom Setting*

During the RCT, literacy instruction for students in both the intervention group and the BAU control group was delivered in general education classrooms during the classroom's literacy block. For the present study, the majority of BAU instruction was delivered in small group contexts by special educators (i.e., special education teachers alternating with paraprofessionals). The spaces designated for the small group lessons were in proximity to the other small or large group instructional activities. Other configurations included whole class instruction delivered by the general education teachers. Typically for this instruction, all the students (including the students with ESN and their reading buddies) were on the floor grouped around the classroom teacher. A final configuration comprised whole-class instruction followed by activities in small group contexts.

### *BAU Instruction: General Characteristics*

Students randomly assigned to the BAU control group received the instruction that the special education teachers designed to meet the students' literacy objectives. Research team members did not influence the content of that instruction in any way. For the present study, BAU instruction was delivered in (a) small group contexts by special educators (67% of classrooms), (b) whole class contexts by the classroom teachers with support from special educators and reading buddies (20% of classrooms), or (c) whole class contexts followed by small group instruction (13% of classrooms). In all three instructional groupings, a reading buddy participated with each student with ESN,

and curricular adaptations and modifications were provided as needed by special educators.

Thirty to forty-minute lessons were delivered daily during the classroom's scheduled literacy block from September to the end of the school year. There were two students with ESN in each classroom (with one exception in which there was a single student). The reading buddies participated on a rotating daily schedule. To help manage the rotating partner schedule, a calendar identifying the buddy for the day was posted in many of the classrooms.

*BAU Implementation Fidelity.* For the RCT, research team members observed ELSB or BAU lessons each week at each school site to collect fidelity of implementation data. Because special education teachers providing BAU instruction used a variety of procedures and materials to address a range of literacy objectives, the implementation fidelity checklist addressed general instructional behaviors relevant to early literacy instruction. The checklist included the following items: (a) Is a reading buddy participating with each focal student in literacy activities in the general education classroom? (b) Is the focal student receiving instruction that addresses early literacy development? (c) Are materials adapted for the focal student (when needed) to increase accessibility (e.g., adding pictures to increase comprehension)? (d) Is physical, verbal, visual, or gestural support from an adult or peer used to assist the focal student to engage in the targeted literacy activities? The checklist also included two items documenting the absence of ELSB materials from the BAU classrooms. A second member of the research team joined the primary data collector to collect interrater reliability (IRR) data during 22.4% of the fidelity sessions for the Pacific Coast state and 20% of the fidelity sessions for the Midwestern states.

Results showed a high level of implementation fidelity for BAU instruction (i.e., 98.1% with a range of 96.3-98.9%). In addition, calculation of point-by-point scoring agreement between the primary data collector and an independent observer revealed a high level of IRR (i.e., 98.6% with a range of 98-99%).

### *Procedure*

The purpose of this secondary data analysis was to explore the characteristics of instruction designed by special education teachers to meet their students' early literacy objectives. Specifically, we investigated the extent to which the lessons addressed the components of effective early literacy instruction identified by the NRP (2000) and the NELP (2008) reports.

### *Data Collection*

As described above, implementation fidelity measures for BAU instruction were gathered by research team members across the school year. The data form that they used included not only the checklist, but also a section for a description of the instruction that researchers observed. These descriptive notes addressed the following questions: (a) Who led the instruction (general education teacher, special education teacher, paraprofessional)? (b) What was the context (small group, whole class, whole class followed by small group?) (c) What was the curriculum source (published or teacher-designed)? (d) What were the activities observed and the materials used? (e) How did the students with ESN engage in the activities? These notes served as the data for the present study.

### *Data Preparation*

The decision to systematically analyze researcher descriptions of BAU instruction was made after the conclusion of the RCT. Therefore, researcher notes addressing instructional activities and student engagement in those activities needed to be "fleshed out" to provide more detailed descriptions. Due to the low level of variation in instructional activities and engagement behaviors across sessions, researchers reported a high level of confidence in the details that they added to their notes. However, to examine the accuracy of researcher descriptions, "member checks" were conducted with the special educators who led or supported the instruction during the observed sessions. For all sessions of small-group instruction, special education teachers were asked to identify any

errors or missing information in the description of lesson sources, materials, activities, and student behaviors. All descriptions of whole class instruction led by the general education teachers were reviewed by the special educators who assisted with the lessons and provided adapted materials and other supports to the students with ESN. Based on feedback from the special educators, additions or minor changes to the descriptions were made to generate the final data files for this study.

### *Coding Scheme*

An adapted version of the coding system (see Table 1) developed by Ahlgrim-Delzell and Rivera (2015) was used for this study. The coding system recorded the use of components of effective early literacy instruction recommended by the NRP (2000) and the NELP (2008) during literacy lessons. It included four of the five NRP components (vocabulary, comprehension, phonological awareness, and phonics). The fifth component, fluency, was not included because of the difficulty that students with ESN may have with processing speed and motoric functioning. Three of the intervention components identified by the NELP (2008) as promoting early literacy development were included: alphabet knowledge, phonological memory, and print concepts. These components were selected because (a) they were an element of reading instruction (e.g., instruction in concept development and spelling were not included) and (b) they had not already been operationally defined within one of the NRP components (e.g., decoding instruction).

Operational definitions of each of the seven literacy components were taken from the NRP and NELP publications and from Ahlgrim-Delzell and Rivera (2015). Initial student activity examples for each definition were also taken from the Ahlgrim-Delzell and Rivera coding system. However, these examples were adapted during an initial coding activity (described below) to reflect the descriptive data from this study. Table 1 presents the coding system, including the literacy components and the operational definitions and examples of student activities for each component.

### *Coding Procedures*

Five members of the research team participated in coding activities: two university faculty and three graduate students completing doctoral degrees in special education. All five team members had participated in data collection activities.

An “initial” coding activity was completed to (a) establish consistent coding across the five-member research team and (b) adapt the examples of student activities on the coding form to reflect the narrative data from the current study. During a team meeting, researchers coded data samples from participating classrooms. After individually coding the narrative data from one session from one classroom, they shared their coding decisions as a group. Coding differences were discussed until consensus was achieved. In addition, examples of student literacy activities from the current study were added to the coding form. They continued this process until there was (a) a high level of agreement on coding decisions and (b) a saturation point was achieved when no new activities were described in the narrative data.

After the final coding scheme was established (see Table 1) and a high level of consensus was achieved, four researchers coded data from three to four of the 15 classrooms. To evaluate the level of IRR, the fifth researcher independently coded data from 6 classrooms (40.0%) randomly selected from each group of classrooms assigned to the four primary coders. Calculation of point-by-point scoring agreement between the primary coders and the secondary coder revealed an IRR level of 87.0% (range: 71.4%–100%).

After IRR outcomes were analyzed, the research team met to review each instance of disagreement between the four primary coders and the secondary coder. A discussion and consensus process was used to make changes to the original coding when needed to reflect the consensus decisions. This produced the final coding files for analysis.

### **Results**

Two analyses were done to examine the extent to which the literacy lessons designed by the 15 participating special education teachers for their students with ESN addressed the core



**TABLE 1**

**Early Literacy Components, Operational Definitions, and Examples of Student Activities**

| <i>Literacy Components</i>                | <i>Operational Definitions and Student Activities Examples</i>  |
|---|---|
| Conventions of Reading/<br>Print Concepts | <i>Demonstrating knowledge of the conventions of reading and print concepts</i> (e.g., locating front/back of book, locating the book’s title and author, opening a book, turning pages, text pointing as text is read [left-to-right, top-to-bottom])  |
| Vocabulary                                | <i>Recognizing individual words</i> (e.g., reading individual words aloud, matching words to pictures, selecting a written word when labeled by the instructor)<br><i>Identifying pictures</i> (e.g., labeling pictures aloud, selecting a picture labeled by the instructor)   |
| Comprehension                             | <i>Answering literal questions about a text after it is read</i> (i.e., answers are found directly in the text; e.g., touching a picture in a book to identify a character in a story)<br><i>Answering inferential questions</i> (i.e., answers require prior knowledge or information learned indirectly from the text; e.g., predicting what a story is about or what comes next in a story, relating the story content to personal experience) |
| Phonological Awareness                    | <i>Manipulating individual sounds in spoken words</i> (e.g., locating pictures that begin with an initial phoneme, blending phonemes to form a word, breaking words into individual phonemes, clapping out syllables, making oral rhymes)   |
| Phonics                                   | <i>Matching letters of written language with the individual sounds of spoken language</i> (e.g., matching letters to the sound, locating letters of words spoken in phonemes)   |
| Alphabet Knowledge                        | <i>Identifying letters individually or within words</i> (e.g., letter naming, naming words that start with a specific letter, locating a picture that begins with a named letter)   |
| Phonological Memory                       | <i>Repeating phonological sequences</i> (e.g., locating missing words in a sentence, repeating whole or part of a repeated story line)  |

*Note.* Adapted from Ahlgrim-Delzell & Rivera (2015).

components of early literacy instruction identified by the NRP (2000) and the NELP (2008). The first examined the *percentage of teachers* addressing each core component during at least one observed literacy lesson. The results of that analysis are presented in Table 2. The second examined the *percentage of literacy instructional activities* across observed sessions that addressed each core component. Figure 1 presents those results.

*Percentage of Teachers Addressing Each Core Component*

As shown in Table 2, none of the special education teachers addressed all seven of the core components of early literacy instruction at least once across observed lessons, and only one teacher targeted six of the seven components. The majority of teachers (80%) addressed 3 to 5 core components. Finally, two teachers

(13.3%) addressed only one or two of the components of effective early literacy instruction.

The core components addressed most commonly by the participating special education teachers were vocabulary development (80.0% of teachers) and comprehension (80.0% of teachers). However, while 75.0% of the Pacific Coast state teachers (six of eight teachers) included instruction on the conventions of reading and print concepts in a shared reading context, only 14.3% of teachers (one of seven teachers) from the Midwestern states did so. Eighty percent (12) of the teachers addressed phonological awareness and/or phonics. However, only 33.3% (four) of those teachers targeted *both* phonological awareness and phonics.

*Percentage of Literacy Instructional Activities Addressing Each Core Component*

Figure 1 presents a picture of the *relative emphasis* that special education teachers placed on

**TABLE 2**

**Percentage of Teachers Addressing Each Core Component During One or More Observed Literacy Lesson**

| <i>Teachers</i>         | <i>CV. R./<br/>Print C.</i> | <i>Vocab.</i> | <i>Compre.</i> | <i>Phon.<br/>Aware.</i> | <i>Phonics</i> | <i>Alpha.<br/>Know.</i> | <i>Phon.<br/>Mem.</i> | <i>%<br/>Compon.</i> |
|-------------------------|-----------------------------|---------------|----------------|-------------------------|----------------|-------------------------|-----------------------|----------------------|
| <sup>1</sup> Teacher 1  | ✓                           | ✓             | ✓              | ✓                       |                |                         | ✓                     | 71.43                |
| <sup>1</sup> Teacher 2  | ✓                           | ✓             | ✓              |                         | ✓              |                         |                       | 57.14                |
| <sup>1</sup> Teacher 3  |                             | ✓             | ✓              | ✓                       | ✓              | ✓                       | ✓                     | 85.71                |
| <sup>1</sup> Teacher 4  |                             | ✓             | ✓              | ✓                       | ✓              | ✓                       |                       | 71.43                |
| <sup>1</sup> Teacher 5  | ✓                           |               | ✓              |                         | ✓              | ✓                       |                       | 57.14                |
| <sup>1</sup> Teacher 6  | ✓                           | ✓             | ✓              |                         |                |                         |                       | 42.86                |
| <sup>1</sup> Teacher 7  | ✓                           | ✓             | ✓              |                         | ✓              | ✓                       |                       | 71.43                |
| <sup>1</sup> Teacher 8  | ✓                           | ✓             | ✓              | ✓                       |                |                         |                       | 57.14                |
| % Subtotal              | 75.00                       | 87.50         | 100            | 50.00                   | 62.50          | 50.00                   | 25.00                 | 64.29                |
| <sup>2</sup> Teacher 9  |                             | ✓             |                | ✓                       | ✓              |                         |                       | 42.86                |
| <sup>2</sup> Teacher 10 |                             | ✓             |                |                         |                | ✓                       |                       | 28.57                |
| <sup>2</sup> Teacher 11 |                             | ✓             |                |                         | ✓              |                         | ✓                     | 42.86                |
| <sup>2</sup> Teacher 12 |                             | ✓             | ✓              | ✓                       |                | ✓                       |                       | 57.14                |
| <sup>2</sup> Teacher 13 |                             |               | ✓              |                         |                |                         |                       | 14.29                |
| <sup>2</sup> Teacher 14 | ✓                           |               | ✓              | ✓                       |                | ✓                       |                       | 57.14                |
| <sup>2</sup> Teacher 15 |                             | ✓             | ✓              | ✓                       | ✓              | ✓                       |                       | 71.43                |
| % Subtotal              | 14.28                       | 71.42         | 57.14          | 57.14                   | 42.85          | 57.14                   | 14.28                 | 44.90                |
| % Total                 | 46.66                       | 80            | 80             | 53.33                   | 53.33          | 53.33                   | 20.00                 | 55.24                |

*Note:* <sup>1</sup> = Pacific Coast state; <sup>2</sup> = Midwestern states.

CV. R. = Conventions of Reading; Print C. = Print Concepts; Vocab. = Vocabulary; Compre. = Comprehension; Phon. Aware.= Phonological Awareness; Alpha. Know. = Alphabetic Knowledge; Phon. Mem. = Phonological Memory; Compon. = Components.

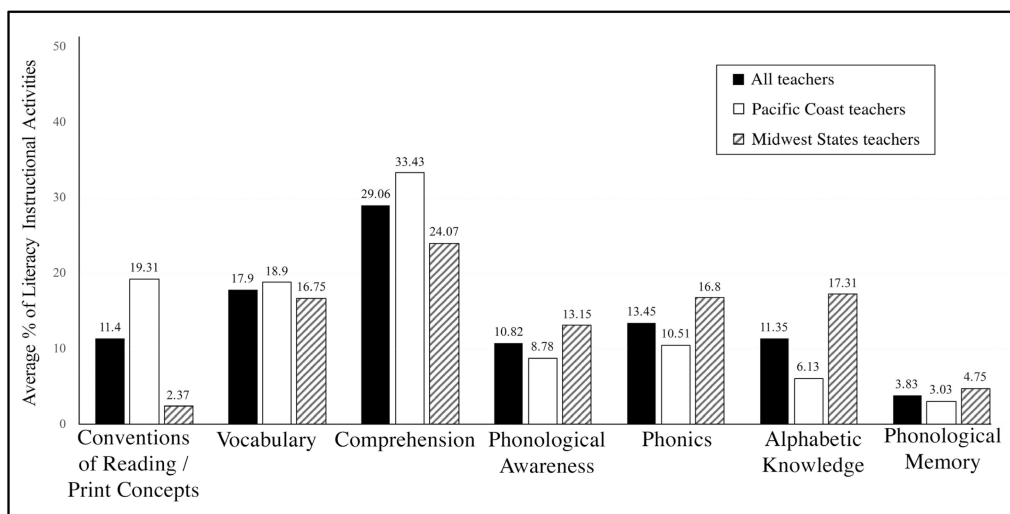
the instruction of each of the core components of early literacy instruction. The solid black bars representing the average percentage of activities across all teachers indicate that the greatest emphasis was placed on instruction in the development of comprehension skills (29.1% of instructional activities). Instruction in vocabulary development received the second greatest emphasis (17.9% of the lessons.) While teachers in the Pacific Coast state addressed the conventions of reading and print concepts in 19.3% of the lesson activities, teachers in the Midwestern states addressed these components in only 2.4% of the instructional activities.

The percentage of instructional activities addressing the development of phonological awareness, phonics skills, and alphabetic knowledge was consistent when averaged across the teachers (i.e., 10.8% to 13.5% of activities); however, somewhat greater emphasis was placed on instruction of these components by teachers in the Midwest states, particularly in the area of alphabetic knowledge. For Pacific Coast teachers,

only 6.1% of instructional activities addressed the identification of letters individually or within words, while for teachers in the Midwestern states, 17.3% of activities addressed this component. Little emphasis was placed on instruction in phonological memory (i.e., 3.8% of instructional activities).

**Discussion**

This study explored the characteristics of early literacy instruction designed by special education teachers for their students with ESN and delivered in general education classrooms with peers participating in the lessons as reading buddies. The results of the study suggest that teachers placed the greatest instructional emphasis on vocabulary and comprehension development. However, there was wide variation among teachers in their selection of the core components of early literacy instruction to address. Reflections on these findings are presented below following consideration of the study’s limitations.



**Figure 1. Average Percentage of Literacy Instructional Activities that Addressed each Component of Early Literacy Instruction.** *Note.* This figure presents the average percentage of literacy instructional activities across observational sessions that addressed each component of early literacy instruction for (a) all participating special education teachers, (b) teachers from the Pacific Coast state, and (c) teachers from the Midwestern states.

### Limitations

There are a number of potential threats to the generalizability of our study results to consider before reflecting on those findings and their possible implications. The teachers were participants in an RCT in which they not only designed BAU instruction for their students in the control group, but also implemented ELSB instruction with their students in the intervention group. Although controls were in place to maintain the fidelity of BAU instruction, carry-over of instructional practices from one condition to the other was possible. In addition, all BAU instruction was implemented in general education classrooms and included peers as reading buddies. Although the majority of lessons (67%) were implemented by special educators in small group contexts, it can be argued that the results may not reflect everyday literacy practices or instruction delivered in special education settings. Finally, fifteen special education teachers comprise a small group. Despite the fact that they taught in multiple school districts across three states, their approach to literacy instruction may not reflect that of the general population of special education teachers serving students with ESN. With consideration of these limitations,

we reflect on the results of this exploratory study and, more generally, on literacy instruction for students with ESN.

### Reflections on Study Findings

All students with ESN should have the opportunity to learn to read with lessons based on scientific research on early literacy instruction. In addition, lessons should incorporate evidence-based instructional practices for this population of students that include individualized curricular adaptations and modifications and assistive technology to ensure that instruction is accessible (Browder, Gibbs, et al., 2009; Keefe et al., 2018; Mirenda & Erickson, 2000; Wehmeyer, 2006). As suggested by Browder and her colleagues (Browder, Gibbs, et al., 2009), “the only way to determine who can learn to read is through teaching reading skills” (p. 271). However, if literacy for students with ESN is placed within an ecological, person-centered framework, then literacy instruction must result in the achievement of skills that increase the students’ quality-of-life *whether or not* the literacy lessons lead to an “independent reader” outcome (Browder, Gibbs, et al., 2009).

The findings from this study indicate that few of the participating special education teachers designed literacy lessons to systematically and comprehensively address the core components of effective early literacy instruction identified by the NRP (2000) and the NELP (2008). Instruction of splinter skills in early literacy not only fails to provide students with the opportunity to progress in independent reading, it also leaves the students with few skills that transfer to daily life. An additional concern is the lack of a shared reading component and instruction in the conventions of reading and print concepts in the lessons designed by 40% of the teachers. Engaging students with ESN in shared reading of adapted grade-level stories provides a rich and dynamic context to systematically teach the students to gain meaning from text and develop and practice communication and social interaction skills—all of which may address individual student learning priorities. In addition, it provides the students with ESN the opportunity to access the same stories that their general education peers are reading.

#### *Implications of Study Findings*

There are three major implications that can be drawn from the findings of this study. The first is the need for consensus on a conceptual framework to guide the selection of literacy goals and the design of instructional contexts. We propose that the framework must be inclusive of all students with ESN. In addition, while increased independence as a reader would be a valued goal within the framework, increased access to literature, meaningful outcomes for all students, and the opportunity to develop literacy skills alongside peers without disabilities would be essential elements of instruction.

The second major implication is that delivering literacy lessons to students with ESN in general education classrooms does not ensure access to standards and research-based instruction. Some teachers in this study modified lessons taught by general education teachers to address students' IEP goals, facilitated learning partnerships with peers, and engaged students in shared reading and other interactive small group reading lessons. However, these instructional and contextual components alone do

not represent the comprehensive early literacy instruction that research with students with and without disabilities tells us most effectively promotes independent reading (Afacan et al., 2018; Browder et al, 2012; Hunt et al., 2020; NELP, 2008, NRP, 2000).

The third major implication is the need to more adequately address the preparation of teachers to deliver comprehensive, research-based early literacy instruction using evidence-based instructional practices for students with ESN. Teacher preparation programs must be held accountable for equipping teacher candidates with those skills and evaluating their ability to effectively deliver that instruction in educational settings. School district administrators must be held accountable for keeping abreast of the latest evidence of best practices in early literacy instruction for students with ESN. Furthermore, they must be responsible for ensuring that teachers in their district have access to the in-service training, instructional materials, and ongoing support that they need to implement quality early literacy instruction and design instructional contexts that ensure that meaningful outcomes are achieved by all students.

#### *Future Research*

Research is needed to more widely evaluate current practices in early literacy instruction for students with ESN. Without an accurate assessment of the strengths and need areas in current practice, the field cannot move forward with targeted interventions. In addition, although promising early literacy programs for students with ESN are emerging, conceptual replication studies are needed to establish those interventions as “evidence-based” practice for students with ESN. Finally, without evidence that students with ESN can progress in early literacy development in the context of general education, they are likely to continue to be served outside general education classrooms for much of the school day—despite evidence of the benefits associated with inclusive delivery of that instruction (Kozleski et al., 2020). Unfortunately, the vast majority of efficacy studies of comprehensive literacy interventions for students with ESN have been conducted in special education

classrooms, thus leaving educational team members without guidance on the contextual arrangements and collaborative partnerships and practices needed to implement the interventions in general education classrooms.

Recently Toews and Kurth (2019) issued a call to action to the educational research community to elicit this much needed research. One path forward to responding to Toews and Kurth's call to action is to turn to the existing research documenting the efficacy of comprehensive literacy interventions designed for students through rigorous efficacy trials (e.g., Allor et al., 2014; Browder et al., 2012). Using a conceptual replication approach, the efficacy of various models for delivering the interventions in general education classroom can be explored while efforts are made to maintain the intervention's procedural fidelity. The RCT conducted by Hunt and her colleagues was one attempt to do this.

Promising first steps are being taken in the development of early literacy interventions for students with ESN as well as the evaluation of models for delivering that instruction in inclusive settings. Hopefully, research in this area will gain momentum—driven by the demand from educators, families, and researchers for rigorous, effective literacy interventions for students with ESN that result in their meaningful participation as members of the literate community.

## References

- Afacan, K., Wilkerson, K. L., & Ruppert, A. L. (2018). Multicomponent reading interventions for students with intellectual disability. *Remedial and Special Education, 39*(4), 229–242. <https://doi.org/10.1177/0741932517702444>
- Ahlgrim-Delzell, L., & Rivera, C. (2015). A content comparison of literacy lessons from 2004 to 2010 for students with moderate and severe intellectual disability. *Exceptionality, 23*(4), 258–269. <http://dx.doi.org/10.1177/0014402914522208>
- Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Otaiba, S. A., T. M. (2014). Teaching students with moderate intellectual disabilities to read: An experimental examination of a comprehensive reading intervention. *Exceptional Children, 80*(3), 287–306. <https://doi.org/10.1177/0014402914522208>
- Alper, S. (2003). An ecological approach to identifying curriculum content for inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum and instruction for students with significant disabilities in inclusive settings* (pp. 73–85). Pearson Education.
- Ayres, K. M., Lowrey, K. A. Douglas, K. H., & Sievers, C. (2011). I can identify Saturn but I can't brush my teeth: What happens when the curricular focus for students with severe disabilities shifts. *Education and Training in Autism and Developmental Disabilities, 46*(1), 11–21.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bonett, D. G. (2012). Replication-extension studies. *Current Directions in Psychological Science, 21*(6), 409–412. <http://dx.doi.org/10.1177/0963721412459512>
- Brady, M. P. (2013). Plastics, standards, and the need to return to individualize planning: A commentary on “educational standards for students with significant intellectual disabilities.” *TASH Connections, 38*(4), 19–22.
- Browder, D., Ahlgrim-Delzell, L., Courtade, G., Gibbs, S., & Flowers, C. (2008). Evaluation of the effectiveness of an early literacy program for students with significant developmental disabilities. *Exceptional Children, 75*(1), 33–52. <https://doi.org/10.1177/001440290807500102>
- Browder, D. M., Ahlgrim-Delzell, L., Flowers, C., & Baker, J. N. (2012). An evaluation of a multicomponent early literacy program for students with severe developmental disabilities. *Remedial and Special Education, 33*(4), 237–246. <http://dx.doi.org/10.1177/0741932510387305>
- Browder, D., Ahlgrim-Delzell, L., Spooner, F., Mims, P. J., & Baker, J. N. (2009). Using time delay to teach literacy to students with severe developmental disabilities. *Exceptional Children, 75*(3), 343–364. <https://doi.org/10.1177/001440290907500305>
- Browder, D. M., Gibbs, S., Ahlgrim-Delzell, L., Courtade, G. R., Mraz, M., & Flowers, C.; (2009). Literacy for students with severe developmental disabilities: What should we teach and what should we hope to achieve? *Remedial and Special Education, 30*(5), 269–282. <https://doi.org/10.1177/0741932508315054>
- Browder, B. M., Spooner, F., Wakeman, S., Trela, K., & Baker, J. N. (2006). Aligning instruction with academic content standards: Finding the link. *Research & Practice for Persons with Severe Disabilities, 31*(4), 309–321. <https://doi.org/10.1177/154079690603100404>
- Browder, D. M., Wakeman, S., Spooner, F., Ahlgrim-Delzell, L., & Algozzine, B. (2006). Research on reading for students with significant cognitive disabilities. *Exceptional Children, 72*(4), 392–408. <https://doi.org/10.1177/001440290607200401>
- Brown, L., (2013). Educational standards for students with significant intellectual disabilities. *TASH Connections, 38*(4), 7–18.
- California Department of Education (CDE). (2018). DataQuest. Author. Retrieved August 17, 2018,



- from the CDE website: <https://data1.cde.ca.gov/dataquest/>
- Copeland, S. R., & Keefe, E. B. (2019). Literacy instruction for all students within general education settings. *Research & Practice for Persons with Severe Disabilities, 44*(3), 143–146. <https://doi.org/10.1177/1540796919866011>
- Courtade, G., Spooner, F., Browder, D., & Jimenez, B. (2012). Seven reasons to promote standards-based instruction for students with severe disabilities: A reply to Ayres, Lowrey, Douglas, & Sievers (2011). *Education and Training in Autism and Developmental Disabilities, 47*(1), 3–13.
- Coyne, M. D., Cook, B. G., & Therrien, W. J. (2016). Recommendations for replication research in special education: A framework of systematic, conceptual replications. *Remedial and Special Education, 37*(4), 244–253. <https://doi.org/10.1177/0741932516648463>
- Dymond, S. K., Renzaglia, A., Gibson, C. L., & Slagor, M. T. (2007). Defining access to the general curriculum for high school students with significant cognitive disabilities. *Research & Practice for Persons with Severe Disabilities, 32*(1), 1–15. <https://doi.org/10.2511/rpsd.32.1.1>
- Every Student Succeeds Act of 2015, Pub. L. No. 114-95 §114 Stat. 117 (2015).
- Ford, A., Davern, L., & Schnorr, R. (2001). Learners with significant disabilities: Curricular relevance in an era of standards-based reform. *Remedial and Special Education, 22*(4), 214–222. <https://doi.org/10.1177/074193250102200405>
- Heinrich, S., Collins, B. C., Knight, V., & Spriggs, A. D. (2016). Embedded simultaneous prompting procedure to teach STEM content to high school students with moderate disabilities in an inclusive setting. *Education and Training in Autism and Developmental Disabilities, 51*(1), 41–54. <https://www.jstor.org/stable/26420363>
- Hudson, M. E., Browder, D. M., & Wood, L. A. (2013). Review of experimental research on academic learning by students with moderate and severe intellectual disability in general education. *Research & Practice for Persons with Severe Disabilities, 38*(1), 17–29. <https://doi.org/10.2511/027494813807046926>
- Hudson, M. E., & Test, D. W. (2011). Evaluating the evidence base of shared story reading to promote literacy for student with extensive support needs. *Research and Practice for Persons with Severe Disabilities, 36*(1-2), 34–45. <http://dx.doi.org/10.2511/rpsd.36.1-2.34>
- Hunt, P. (2019). Implementing comprehensive early literacy instruction in general education classrooms: A response to Toews' and Kurth's call to action. *Research and Practice for Persons with Severe Disabilities, 44*(3), 147–152. <https://doi.org/10.1177/1540796919862874>
- Hunt, P., Kozleski, E. B., Lee, J., Mortier, K., Fleming, D., Hicks, T., Balasubramanian, L., Leu, G., Bross, L. A., Munandar, V., Dunlap, K., Stepaniuk, I., Aramburo, C., & Oh, Y. (2020). Implementing comprehensive emergent literacy instruction for students with severe disabilities in general education classrooms. *Exceptional Children, 86*(3), 330–347. <https://doi.org/10.1177/0014402919880156>
- Hunt, P., McDonnell, J., & Crockett, M. A. (2012). Reconciling an ecological curricular framework focusing on quality of life outcomes with the development and instruction of standards-based academic goals. *Research & Practice for Persons with Severe Disabilities, 37*(3), 139–152. <https://doi.org/10.2511/027494812804153471>
- Individuals with Disabilities Education Improvement Act, 20 U.S.C. § 1400 (2004).
- Keefe, E. B., & Copeland, S. R. (2011). What is literacy? The power of a definition. *Research and Practice for Persons with Severe Disabilities, 36*(3-4), 92–99. <https://doi.org/10.2511/027494811800824507>
- Keefe, E. B., Copeland, S. R., Luckasson, R., & Ryndak, D. (2018). Where do we go from here? In S. R. Copeland & E. B. Keefe (Eds.), *Effective literacy instruction for learners with complex support needs* (pp. 352–359). Paul H. Brookes.
- Kliewer, C., Fitzgerald, L., Meyer-Mork, J., Hartman, P., English-Sand, P., & Raschke, D. (2004). Citizenship for all in the literate community: An ethnography of young children with significant disabilities in inclusive early childhood settings. *Harvard Educational Review, 74*(4), 373–403. <http://dx.doi.org/10.17763/haer.74.4.p46171013714642x>
- Kozleski, E., Hunt, P., Mortier, K., Fleming, Stepaniuk, Balasubramanian, L., Leu, G., & Munandar, V. (2020). What peers, educators, and principals say: The social validity of inclusive, comprehensive literacy instruction. *Exceptional Children, 87*(3), 289–306. <https://doi.org/10.1177/0014402920969184>
- Kuntz, E. M., & Carter, E. W. (2019). Review of interventions supporting secondary students with intellectual disability in general education classes. *Research and Practice for Persons with Severe Disabilities, 44*(2), 103–121. <https://doi.org/10.1177/1540796919847483>
- McDonnell, J., Hunt, P., Ryndak, D., & Jackson, L. (2013). Educational standards for students with significant intellectual disabilities: A response to Lou Brown. *TASH Connections, 38*(4), 30–35.
- Mirenda, P., & Erickson, K. A. (2000). Augmentative communication and literacy. In A. M. Wetherby & B. M. Prizant (Eds.), *Autism spectrum disorders: A transactional developmental perspective* (pp. 225–250). Paul H. Brookes.
- National Center for Education Statistics. (2018). *Common core of data*. Author. <https://nces.ed.gov/ccd/schoolsearch/>

- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. National Institute for Literacy. <http://www.nifl.gov/earlychildhood/NELP/NELPreport.html>
- National Reading Panel. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. NIH Pub. No. 00-4769. U.S. Government Printing Office.
- Ruppar, A. L., Dymond, S. K., & Gaffney, J. S. (2011). Teachers' perspectives on literacy instruction for students with severe disabilities who use augmentative and alternative communication. *Research & Practice for Persons with Severe Disabilities, 36*(3-4), 100-111. <https://doi.org/10.2511/027494811800824435>
- Ruppar, A. L., Gaffney, J. S. & Dymond, S. K. (2015). Influences on teachers' decisions about literacy for secondary students with severe disabilities. *Exceptional Children, 81*(2), 209-226. <https://doi.org/10.1177/0014402914551739>
- Toews, S. G., McQuestion, J., & Kurth, J. A. (2021). Evaluation of the evidence base for shared reading to support literacy skill development for students with extensive support needs. *Research & Practice for Persons with Severe Disabilities, 46*(2), 77-93. <https://doi.org/10.1177/15407969211008531>
- Toews, S. G., & Kurth, J. A. (2019). Literacy instruction within general education settings: A call to action. *Research & Practice for Persons with Severe Disabilities, 44*(3), 135-142. <https://doi.org/10.1177/1540796919855373>
- Trela, K., & Jimenez, B. A. (2013). From different to differentiated: Using "ecological framework" to support personally relevant access to general curriculum for student with significant intellectual disabilities. *Research & Practice for Persons with Severe Disabilities, 38*(2), 117-119. <https://doi.org/10.2511/027494813807714537>
- Wehmeyer, M. L. (2006). Beyond access: Ensuring progress in the general education curriculum for students with severe disabilities. *Research & Practice for Persons with Severe Disabilities, 31*(4), 322-326. <https://doi.org/10.1177/154079690603100405>

---

Received: 27 July 2021

Initial Acceptance: 21 September 2021

Final Acceptance: 12 October 2021