A QUALITATIVE STUDY OF TEACHER PERCEPTIONS ON USING AN EXPLICIT INSTRUCTION CURRICULUM TO TEACH EARLY READING SKILLS TO STUDENTS WITH SIGNIFICANT DEVELOPMENTAL DISABILITIES

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This study examines teachers’ perceptions about a structured literacy curriculum that uses explicit instruction and teacher script combined with instructional practices common in special education such as time delay, error correction, and prompting strategies. The main research question addressed by this study was “What are the perceptions and beliefs of teachers of students with significant developmental disabilities about the effects of using an explicit reading instruction curriculum?” Three themes or key findings emerged from our analysis of the data regarding teachers’ perceptions of such curricula. These themes suggest that these teachers believe that a structured literacy curriculum has a positive impact on student learning, teacher effectiveness, and teacher self-efficacy.

Since the mandates of Individuals With Disabilities Education Act Amendments (IDEA, 2004) and the No Child Left Behind Act (NCLB, 2001) that require students with significant developmental disabilities to access the general curriculum and participate in state and district assessments in reading, math, and science, special education teachers have struggled with finding models and resources for teaching these academic skills. Up to this point in special education, the curriculum for the these students who represent the 1% for whom an alternate assessment based on alternate achievement standards is most appropriate consisted of an individualized education plan (IEP) that was most likely not connected to the academic curriculum provided to students.

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in the general education classrooms (Kleinert & Kearns, 2001; Thompson, Quenemoen, Thurlow, & Ysseldyke, 2001). Historically, this population of students had not had the opportunity to learn these academic skills because they were believed incapable of learning such skills by some professionals and were thought to be in more need of functional living skills by others (Browder, Gibbs, Ahlgrim-Delzell, Courtade, Mraz, & Flowers, 2009; Katims, 2000; Kliwer, 1998; Kliwer, Biklen, & Kasa-Hendrickson, 2008). Textbooks used in special education teacher programs (e.g., Browder, 1987, 1991; Cipani & Spooner, 1994; Falvey, 1986; Snell, 1983, 1987, 1993; Westling & Fox, 1995) and curriculum guides (e.g., Ford et al., 1989; Giangreco, Clonginger, & Iverson, 1993; Wilcox & Bellamy, 1987) for this population stressed functional living skills these students would need in order to participate in their community as much as possible. There was some discussion among the special education community about embedding basic academic skills into functional applications (Downing, 1996; Ryndak & Alper, 1996), but it was the NCLB mandate that turned the debate into a necessity.

The most recent review of the reading literature for students with moderate to severe cognitive disabilities by Browder, Wakeman, Spooner, Ahlgrim-Delzell, and Algozzine (2006) found that a vast majority of reading instruction consisted of sight word vocabulary massed trials using systematic instructional strategies combining stimulus and response prompting, error correction, prompt fading, and reinforcement. The most common teaching strategy was time delay. Though this method proved very effective in teaching the memorization of sight words, they found little evidence of teaching comprehension of these words. Instruction emphasized reading the word verbally or by pointing without teaching word meaning or using the word in a real-world application to indicate understanding of the word.

About the same time as the IDEA and NCLB federal mandates, the National Reading Panel (NRP, 2000) completed its work on identifying the essential components in learning to read. The NRP found evidence that reading instruction is best provided with five components, including comprehension, phonemic awareness, phonics, fluency, and vocabulary. The question arose: Can students with significant developmental disabilities learn to read if we provide them with these essential components instead of just sight word vocabulary?
In 2005, a longitudinal study called Reading Accommodations and Interventions for Students with Early Literacy (RAISE) began to investigate the question of whether students with significant developmental disabilities can learn to read if we provide them with the essential components of reading identified by the NRP (2000). An exhaustive search for a commercially available curriculum appropriate for this population revealed that existing curricula required fairly sophisticated verbal skills that most of this group of students did not possess. The RAISE research team proceeded to create an early literacy curriculum merging the components of reading identified by the NRP and instructional best practices of special education. The objectives for the Early Literacy Skills Builder curriculum (ELSB; Browder, Gibbs, Ahlgrim-Delzell, Courtade, & Lee, 2007) are displayed in Table 1. The experimental literacy curriculum uses explicit instruction with suggested script combined with instructional practices common in special education such as time delay, error correction, and prompting strategies. Though explicit, direct instruction is more common in reading programs in general education classrooms (e.g., Reading Mastery SRA/McGraw Hill; Open

<table>
<thead>
<tr>
<th>Objective</th>
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<tbody>
<tr>
<td>1. Read or point to vocabulary sight words</td>
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<tr>
<td>2. Read or point to sight words to complete sentences</td>
</tr>
<tr>
<td>3. Point to words in a sentence as teacher reads them aloud</td>
</tr>
<tr>
<td>4. Point to or say a word to fill in a repeated story line</td>
</tr>
<tr>
<td>5. Respond to a question about the story verbally or by selecting the correct picture or word with increasing complexity of comprehension (literal, main idea, sequencing, inferences)</td>
</tr>
<tr>
<td>6. Demonstrate understanding of segmentation by clapping, tapping or nodding out syllables in words</td>
</tr>
<tr>
<td>7. Demonstrate understanding of segmentation by clapping, tapping or nodding out phonemes in consonant-vowel-consonant (CVC) words</td>
</tr>
<tr>
<td>8. Point to letter–sound correspondence</td>
</tr>
<tr>
<td>9. Point to first and last sounds in words</td>
</tr>
<tr>
<td>10. Point to pictures that begin/end with specific sounds</td>
</tr>
<tr>
<td>11. Point to letters in words as they are segmented by teacher</td>
</tr>
<tr>
<td>12. Point to pictures that represent words segmented by teacher</td>
</tr>
<tr>
<td>13. Point to pictures of words spoken by teacher</td>
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</table>

Note. A pointing response is provided for students who are not verbal.
A Qualitative Study of Teacher Perceptions

Court SRA/McGraw Hill) it is an uncommon special education instructional practice for students with significant developmental disabilities. Instruction has historically been based on individualized IEPs that comprised the curriculum for these students. Because both the teaching of NRP (2000) reading skills to this group of students and the use of explicit instruction are new ideas, the RAISE research team was interested in knowing how the teachers of these students viewed the curriculum itself and the impact it has had on their students. Moreover, it is difficult to assess the reading achievement of students with significant developmental disabilities using standardized measures. The research team felt that teachers’ perceptions would provide a useful lens through which to understand the impact of this curriculum on students. Despite the fact that research may find a specific curriculum to be an effective teaching tool, it should also be seen as practical and effective in the eyes of the user, the teacher. The main research question addressed by this study was “What are the perceptions and beliefs of teachers of students with significant developmental disabilities about the effects of using an explicit reading instruction curriculum?”

Method

To learn about teachers’ perceptions of using explicit instruction with students with significant developmental disabilities, a qualitative research design was employed. Qualitative research is descriptive and inductive and focuses on meaning from the point of view of the participants (Bogdan & Biklen, 2007; Merriam, 1998). This research methodology seeks to understand what sense participants make of their social worlds. In this case we sought to understand teaching and learning literacy skills in classrooms for students with developmental disabilities. From the researcher’s perspective, “the emphasis [is] on putting oneself in the place of the other and seeing things from the perspective of others” (Crotty, 1998, p. 76).

Data were collected in the Spring 2007 from observations and interviews with six teachers of students with significant developmental disabilities. These teachers taught in one of three programs offered by a school district, located in a metropolitan area of the Southeastern United States. As is common in qualitative research, participant selection was purposeful. We sought two
TABLE 2 Teacher Informant and Student Information

<table>
<thead>
<tr>
<th>Informant Name</th>
<th>Race/Ethnicity</th>
<th>Instructional Program Type</th>
<th>Years of Teaching Experience</th>
<th>Student Grade Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn White</td>
<td>Moderate cognitive disability</td>
<td>11</td>
<td>K–2</td>
<td></td>
</tr>
<tr>
<td>Carolina Latina</td>
<td>Moderate cognitive disability</td>
<td>3</td>
<td>K–3</td>
<td></td>
</tr>
<tr>
<td>Sarah White</td>
<td>Autism</td>
<td>19</td>
<td>K–2</td>
<td></td>
</tr>
<tr>
<td>Amanda White</td>
<td>Autism</td>
<td>5</td>
<td>K–5</td>
<td></td>
</tr>
<tr>
<td>Lily White</td>
<td>Severe, multiple disabilities</td>
<td>9</td>
<td>K–5</td>
<td></td>
</tr>
<tr>
<td>Maria African  American</td>
<td>Severe, multiple disabilities</td>
<td>4</td>
<td>K–5</td>
<td></td>
</tr>
</tbody>
</table>

Teachers from each of the three instructional programs using the experimental curriculum: classrooms with students with severe, multiple disabilities; classrooms with students with autism; and classrooms with students with moderate cognitive disabilities. We felt that it was desirable to gain differing levels of teaching experience as well as ethnic/racial diversity. There were no male teachers using the curriculum, so gender was not a point of consideration. Table 2 provides a description of these six teachers and their students. All six teachers were volunteer participants in the RAISE research project. Each of the teachers in this qualitative study had participated in the RAISE research project using the experimental curriculum for 1 to 2 years. They attended five training sessions throughout each year of participation and received frequent in-class monitoring and feedback on the fidelity of implementation of the curriculum. As a RAISE participant, each teacher also received a small monetary honorarium at the end of each academic year for completion of the pre- and posttest instruments for each of the student participants.

The experimental curriculum used in the RAISE project is called the Early Literacy Skills Builder (ELSB; Browder et al., 2007). A description of the curriculum, its development, and effectiveness with students with significant developmental disabilities is provided in Browder et al. (2008). The curriculum is comprised of two components. One component teaches phonemic awareness and phonics skills with color-coded suggested lesson script incorporating systematic instructional techniques.
Though the systematic instructional techniques such as time delay, error correction, and response prompting are common special educational teaching tools, teaching phonemic awareness and phonics skills with suggested script is not common in special education. A second component of the experimental curriculum teaches skills to increase student participation in reading books aloud in a small group. The experimental curriculum provides additional ideas for students who require individualized instructional access to accommodate physical and/or language disabilities. Data for this study consisted of individual teacher observations and interviews as well as a group panel interview. A classroom observation was conducted of each teacher informant teaching one or more students using the experimental curriculum. A semistructured interview (Merriam, 1998) lasting approximately 45 minutes was held immediately following each observation (see Appendix A). Interviews served as the primary data source, with the observations providing secondary data. The classroom observations also served as a common reference point for the researcher and informants to discuss the experimental curriculum with specific questions about student and teacher interactions the interviewer observed. After all individual classroom observations and interviews were completed, three of the teacher informants met as a group to view a video with vignettes of teachers using the curriculum with students. These teachers were interviewed during and after viewing the video (see Appendix B) to gather additional data on their perceptions of the curriculum. This panel interview served as an additional source of data that added to the trustworthiness of the analysis and provided an additional source to triangulate findings. All interviews were digitally recorded and transcribed.

The first author, who was unaffiliated with the RAISE project and experimental curriculum, conducted all observations and interviews and performed the initial analysis of the data. His prior classroom teaching experiences and postsecondary teaching and research have been outside the field of special education. We argue that this outsider (etic) perspective was valuable in the data collection and analysis phase of the research, and collaboration with the other researcher/authors brought important insider (emic) knowledge to this research. This approach helped
ensure that data gathering and initial analysis were conducted independently from researchers who helped create the experimental curriculum.

We conducted a two-level analysis of the data beginning with a coding of the interviews using constant comparative analysis (CCA; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1990). It was not our goal to necessarily generate grounded theory, which is often associated with CCA but, as Merriam (2002) and Moje et al. (2004) suggested, to use CCA to generate empirical understandings that emerge from discourse. Table 3 lists the first-level codes used in this analysis. In our second level of analysis, we examined the data within each initial coding category to see what themes or topics emerged across interviews. This

<table>
<thead>
<tr>
<th>Code</th>
<th>Description of Code</th>
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<tbody>
<tr>
<td>Classroom description</td>
<td>Convenience code: description by teacher informants of their classrooms</td>
</tr>
<tr>
<td>Instructional goals</td>
<td>Convenience code: description of teachers’ instructional goals for their classrooms</td>
</tr>
<tr>
<td>Student description</td>
<td>Convenience code: teachers’ descriptions of students</td>
</tr>
<tr>
<td>Teacher description</td>
<td>Convenience code: teachers’ description of themselves</td>
</tr>
<tr>
<td>ELSB challenges for students</td>
<td>Teacher informants’ perceptions of challenges for students</td>
</tr>
<tr>
<td>ELSB challenges for teachers</td>
<td>Teacher informants’ perceptions of challenges for teachers</td>
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<tr>
<td>ELSB impact on students</td>
<td>Teacher informants’ perceptions of impact on students</td>
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<tr>
<td>ELSB impact on teachers</td>
<td>Teacher informants’ perceptions of impact on teachers</td>
</tr>
<tr>
<td>ELSB limitations</td>
<td>Teacher informants’ perceptions of limitations of curriculum</td>
</tr>
<tr>
<td>ELSB strengths</td>
<td>Teacher informants’ perceptions of strengths of curriculum</td>
</tr>
<tr>
<td>ELSB vs. other curricula</td>
<td>Teacher informants’ perceptions of other curricula</td>
</tr>
<tr>
<td>ELSB weaknesses</td>
<td>Teacher informants’ perceptions of weaknesses or areas for improvement of ELSB curriculum</td>
</tr>
</tbody>
</table>
recursive process led to the development of three larger themes or concepts.

Findings

Three themes or key findings emerged from our analysis of the data regarding teachers’ perceptions of the experimental curriculum. These themes, which we discuss in detail, suggest that these teachers believe that ELSB has an impact on student learning, teacher effectiveness, and teacher self-efficacy.

Impact on Student Learning

Teachers in all three instructional programs said that the experimental curriculum had an impact on several aspects of student learning. Some of these areas focused on learning to read, and other perceptions of impact addressed aspects of learning such as engagement and improvement in attention span. Teachers also pointed to challenges students faced with learning when using the experimental program. Student readiness for the program was one concern raised by some teachers in this study. We offer the following frequency count to provide a sense of the balance between positive perceptions and critical perceptions. Across the six interviews with individual teacher participants and the panel interview, we coded 12 instances of “student challenges” compared to 51 instances of “student successes.” Specifically regarding reading, teacher participants said that they saw positive impact on students’ knowledge of concepts of print, phonics and phonemic awareness, word recognition, and reading comprehension. Some teachers also said that the curriculum is more robust or multifaceted than other reading programs available to them for use with students with developmental disabilities.

CONCEPTS OF PRINT

A knowledge of concepts of print is vital for reading success (Clay, 2000; Lomax & McGee, 1987). A learner’s understanding of the concepts of print includes knowledge that (a) print carries a message; (b) there is a one-to-one correspondence between words read and printed text; (c) there are conventions of print such as directionality; and (d) there are differences between letters
and words, upper- and lowercase letters, and punctuation. Four of six teacher participants said they observed student progress in learning concepts of print. Carolina, a teacher of students with moderate cognitive disabilities, said the experimental curriculum helped her students “understand that the stories go this way, from left to right and when I stop reading this, to go to the next one. So that’s the biggest progress I have seen: directionality in reading.” In addition to directionality, teachers from all three instructional programs observed students engaging in text pointing, an indication of the one-to-one correspondence between words and text. Lily, a teacher of students with severe, multiple disabilities, said:

My kids are doing things I never would have imagined. The text pointing is one of the biggest issues, but I have found that using a pen light to point to the words, my students watch along, with each and every word.

As her comments suggest, students exhibited these behaviors in different ways, including finger pointing and visual tracking, but these teachers each viewed this as progress. They had seen less evidence of these behaviors when using other curricula.

PHONICS AND PHONEMIC AWARENESS

Three of the six teachers said that their students showed improvement in learning aspects of phonics and phonemic awareness. We recognize that these are different concepts related to learning to read, but we address both together because the language the teacher informants used to describe student progress blurs the boundaries between the two. Phonics as an understanding of the relationship between letters (graphemes) and sounds (phonemes), and phonemic awareness is the ability to hear, identify, and manipulate individual sounds in spoken words. The National Reading Panel (2000) identified both phonics and phonemic awareness as essential components in learning to read. Three teacher informants in this study—Amanda, Lily, and Maria—said they observed growth in their students’ abilities to identify letter and sound relationships.

Amanda, a teacher of students with autism, and Maria, a teacher of students with severe, multiple disabilities, said that students were learning initial sounds in words. Amanda said about one of her students, “You know if I give him the words, the words
that have the pictures’ beginning sounds, if I say the words, you know which one starts with the beginning sound, he can point.” Maria said that one of her students had begun making vowel sounds, and Lily, another teacher of students with severe, multiple disabilities in an inclusive setting, said, “My students are starting to do beginning sounds and ending sounds.” Observations of this and other lessons conducted by the researchers as well as video of lessons supported these assertions.

SIGHT WORD RECOGNITION

Part of the experimental curriculum addresses sight word learning, and four teachers from each of the three instructional programs said that students showed evidence of learning sight words as a result of their use of the program. The experimental curriculum introduces a few words and provides repeated exposures for students who point to word cards to fill in a missing word during teacher oral reading of a story. Lynn, a teacher of students with moderate cognitive disabilities, observed that her students enjoyed this part of the curriculum:

They have to find the missing word and they love that. She [a student observed by the project researcher prior to the interview with Lynn] has learned those words. She knows before I get to the page. Did you see her already point to the word? I know I’m going to get to say this word. And I know what this word is. They are so excited because they have so much. They just get it right every time, so they are proud of themselves, and there’s not fear of failure.

Lily said she had not seen the kind of progress in sight word recognition with other forms of instruction that she has seen using the experimental curriculum. “We’ve got them recognizing sight words and that just blows me away,” she said.

READING COMPREHENSION

Comprehension is difficult to measure in students with significant developmental disabilities. Because many students with moderate or severe cognitive disabilities or autism are nonverbal, the curriculum provides objects and pictures for students to point to or to acknowledge visually in order to demonstrate their knowledge. Several teacher participants discussed comprehension and,
in particular, named it as a goal of the experimental program. Two teacher participants in this study, Maria and Lily, discussed students’ reading comprehension in more specific detail. Maria explained that her students’ success came despite low expectations often held for students with significant developmental disabilities:

My students who, you know, people thought they wouldn’t be able to do something like this, that they would not be able to comprehend literacy in general. They are comprehending it, and they are able to pull what the story is all about, being able to take objects, or anything and relate them to the story that is being read.

Students’ abilities to comprehend the story-based lessons also exceeded Lily’s expectations:

I mean it’s just not something that I thought . . . they would be able to do, that they would be about to do. I mean some of the questions that we ask, especially . . . the story based lessons, they get more involved and they are answering the questions with picture symbols. It’s just amazing.

It is difficult to measure the reading achievement of students with significant developmental disabilities using standardized measures; however, teachers’ perceptions provide one indication of progress for these learners. The teacher informants in this study said the experimental curriculum had a positive impact on students’ reading in three areas: phonics and phonemic awareness, sight words, and comprehension—key aspects of reading as identified by the National Reading Panel (2000). According to these teachers, the experimental curriculum demonstrated a greater knowledge of concepts of print. Though teachers’ comments focused on positive aspects of student learning at a ratio of greater than four to one, some challenges to student learning were also identified.

CHALLENGES TO LEARNING

Teacher informants spoke often of the engaging nature of the experimental curriculum—the story-based lessons, the use of Moe the puppet, manipulatives, and picture clues. Moe, a green frog puppet, is used as a motivator and co-teacher to demonstrate correct responses during the lessons. However, two informants
said they modified the curriculum for two students who were distracted by the puppet. Amanda said she taught the experimental curriculum to one student group without using the puppet because it caused one of the students to become agitated. This concern was raised by the two autism teachers and may be an issue that requires further research with this student population.

Student readiness was another challenge raised by some of the teacher informants. Though teachers said the experimental curriculum was beneficial for most students, two teachers said they felt some students were more ready for the small group read-alouds than others. Carolina said:

I do have one girl who is, I just don’t think she’s ready for it. So out of three of my four [students] I do think it’s completely appropriate. Not that it’s inappropriate for her but I don’t really think she’s getting the benefits that she should be getting out of it for different reasons.

Learner readiness is an important aspect of teaching and learning and a factor with any curricula. This is a point made by Maria: “I mean there are some challenges, but you know, of course with any curriculum that has been developed [for] kids who have a developmental disability there is always a challenge there.”

In addition to examining teachers’ perceptions of student learning, this research examined teachers’ beliefs about the impact of the experimental curriculum on their work as teachers. Data analysis revealed two separate but related issues of teacher effectiveness and teacher self-efficacy.

**Teacher Effectiveness and Teacher Self-Efficacy**

*Teacher effectiveness* and *teacher self-efficacy* are terms that hold different meanings but often become entangled when examining teacher behaviors. Teacher effectiveness research often links teachers’ behaviors with student outcomes, but as Brophy and Good (1986) pointed out more than 20 years ago, teacher effectiveness also includes teacher impact on student socialization and other affective measures of student development. Goe, Bell, and Little (2008) speculated that definitions of teacher effectiveness have focused more narrowly on student achievement in an era of increasing accountability pressures. Though views on this vary,
most definitions of teacher effectiveness hold in common a connection between teacher behaviors and student success.

Bandura defined self-efficacy beliefs as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (1986, p. 391). Pajares (1997) argued that self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. In relation to teachers and teaching, unless a teacher believes that she can produce positive outcomes such as that seen in the achievement of students, she has little incentive to act or to persevere in the face of the many complex challenges teachers face daily (Hargreaves, 1994). Research links teacher self-efficacy to many meaningful educational outcomes, including teachers’ persistence, enthusiasm, commitment, and instructional behavior (Tschannen-Moran & Hoy, 2001), and has proven to be an important variable in teacher effectiveness (Henson, Kogan, & Vacha-Haase, 2001). Teacher self-efficacy is an important theme that arose from our analysis of the interviews of the teacher informants in this study.

For purposes of our study, teacher effectiveness relates to those behaviors in their teaching that the informants said changed as a result of the ELSB curriculum (planning and teaching behaviors, for example), whereas teacher self-efficacy focuses on the affective changes these teachers said took place (their attitudes toward teaching, for example).

TEACHER EFFECTIVENESS

Teacher informants were asked about the impact of the experimental curriculum on their teaching. From this line of questioning, two patterns or themes arose: (a) planning for reading instruction was more efficient and (b) it provided a more complete curriculum that addressed student needs and changing state standards. First, teachers said that the experimental curriculum helped them cut down on the time they needed for planning. Special education teachers in the district had been using a published sight word reading curriculum and many said they supplemented that curriculum with other materials they chose at their discretion. Lynn, a veteran teacher, explained the impact of the experimental curriculum on her teaching this way:
It’s exciting. I used to dread teaching reading, because it was, you know, flash cards, and trying to pull out whatever I could, constantly scrounging for more materials for the kids. Now it’s ready. I whip it out and I know we are all going to be successful.

Amanda said, “It’s just been a great program that I could implement without having to do a lot of research to find the things that I thought would be helpful to me.” Another teacher, Sarah, said, “In many ways it’s made my life easier because I don’t have to continue to create and guess.” This theme cut across all three programs. Maria said that the experimental curriculum gave her “a guideline” to follow.

It can be argued that increasing teacher efficiency in planning is a good thing, but we acknowledge that it is not a sufficient single criterion for selecting a reading curriculum. However, teachers in this study identified instructional aspects of the experimental curriculum that in their view enhanced teaching and learning in their classrooms. Some teachers suggested that the experimental curriculum provided a more complete reading curriculum that better met some needs of their students. Several of the teachers said they felt that though the sight word curriculum provided sound instruction in reading sight words, it did not provide enough instruction in comprehension, phonics, and phonemic awareness. Lynn, one of the teachers who made this point, said that the experimental curriculum is a spiral that focuses on “errorless learning.” She contrasted this with other curricula in which teachers are instructed to stop after a student makes four errors. Lynn discussed an instructional sequence on letter sounds that was observed during a field observation. The puppet, Moe, was used to show the student the letters and demonstrate the sounds of specific letters. Lynn and Moe then read a short poem to reinforce the sounds. The student was directed to point to symbols for the /m/ and /s/ sounds during this instructional sequence and was redirected if she made an error. “So there’s not failure,” Lynn said. “That’s the other thing I love about the [experimental curriculum]. That I think is so important, is, it goes as far as possible to be errorless learning.”

Other teacher informants pointed to additional instructional benefits they saw in the experimental curriculum. Sarah, who taught several nonverbal students, said the experimental
curriculum was beneficial for nonverbal students because it “builds in for the nonverbal.” She said that the mix of picture cards, visual symbols, and manipulatives along with the slower pace of the curriculum helped her nonverbal students learn more effectively. Teachers also acknowledged that state standards in core areas like reading were changing for students with significant developmental disabilities. Several said that the state had just implemented extended standards for exceptional children (EC). Carolina said that the experimental curriculum helped her address those new standards:

> It’s given me a literacy lesson to follow with my kids. The [state] extended standards are new for this year, so we didn’t really have a literacy based lesson to follow until the [experimental curriculum]. Now that the standards are here we have that to follow also, but it gives you a way to follow the standards. Instead of coming up with one on your own.

These teachers viewed the experimental curriculum as a more robust and organized curriculum that addressed changing state standards and made planning more efficient. Sarah summed up the scope of the experimental curriculum:

> I mean there is so much more to the [experimental curriculum], you learn letter sounds, you learn text pointing, you learn, um, to answer questions. It’s just a huge component that is actually reading, and preparing for reading.

We argue that in addition to seeing improvements in the effectiveness in their reading pedagogy, these teachers’ perceptions of the experimental curriculum suggest improvement in their self-efficacy with regard to teaching reading.

TEACHER SELF-EFFICACY

It is through a close look at teachers’ language that we see changes in their self-efficacy behaviors as a result of the experimental curriculum. For example, Lynn said she used to “dread teaching reading” because she had to create much of her curriculum. As she put it, she was “constantly scrounging for more materials for the kids.” She said the experimental curriculum allowed her to be “ready” to teach reading. In her words, “I know we are all going to be successful.” The shift in Lynn’s language from her
dread of teaching reading to a readiness that gave her a sense of success suggests a positive change in self-efficacy belief. Lily suggested a similar change in her beliefs about her teaching:

This is actually embarrassing, for myself, but um, when I started teaching with the kids, you know, my lessons were, okay, let’s read the story, and maybe we’ll do some vocabulary. I would just pull a word or two from the book, and we would just talk about those words. And that was basically all that I did, I mean I would read the title and the author. But I wouldn’t explain, you know, who or what it was, where it was, how to find it or, you know, it was one of those things I guess I just took for granted.

Lily then said about the experimental curriculum:

It’s just amazing to me. I just never would have thought that my kids could figure out the beginning sound of a word, or figure out, you know, like I said the comprehension, just understanding what a story is actually about. Or finding the main character. I never, I never would have tried that in a million years before this curriculum.

Lily said she moved from embarrassment to amazement, a shift that suggests a change in her perception of her ability as a teacher. We see it as telling what Lily says about teaching reading comprehension, “I never, I never would have tried that.” Lily’s comments suggest that the experimental curriculum increased her sense of effectiveness as a teacher of reading to her students with significant developmental disabilities. Maria made a similar juxtaposition between the low expectations that many hold for her students and the achievement she said she saw with the curriculum:

You know, there’s a lot of people who think that these kids can’t do anything; just because they are in wheelchairs and they have speech and language disorders, but there is something that they can do. And you never know until you try.

Maria’s language moves from her statement that many believe that “these kids can’t do anything” to “there is something that they can do.” We see in these examples an increase in the sense of effectiveness on the part of these teachers that led to an increase in their self-efficacy. Moreover, there is a shift in the discourse from what students cannot do (a deficit orientation) to what students are able to do (an ability orientation).
This analysis of teacher discourse reveals that the ELSB curriculum helped these teachers form more positive beliefs about their self-efficacy as teachers of reading to students with significant developmental disabilities. For some, this change was significant and included a shift from a dread or lack of competence of teaching reading to these students to a sense of effectiveness and empowerment.

Conclusions

Though the RAISE project is primarily a quantitative investigation to establish a learning progression of literacy skills for students with significant developmental disabilities, this study sought to document teacher perceptions and beliefs in regards to using instructional methods to teach literacy skills that are not common to the field of special education. From the teachers’ perspective, the experimental curriculum opened instructional opportunities for students and enhanced their roles as teachers. Teachers in all three instructional programs said that the experimental curriculum had an impact on several aspects of student learning, including students’ knowledge of concepts of print, phonics and phonemic awareness, word recognition, and reading comprehension. The experimental curriculum helped see these students as capable learners able to engage in multiple facets of reading instruction. This disputes the traditional view that reading instruction for students with significant developmental disabilities be primarily comprised of massed trial sight word memorization. This also supports quantitative findings that students using the experimental curriculum demonstrated significantly greater growth in phonemic awareness, phonics, picture identification, and auditory memory (Browder et al., 2008).

We see a clear connection between the impact on student learning as described by the teachers and their sense of effectiveness and self-efficacy beliefs. Teachers viewed the experimental curriculum as more complete than others available to them. Moreover, several said that it made planning for reading instruction easier and less time consuming. More importantly, the impact on student learning they described led to a greater sense of self-competence as a teacher. These two areas of impact—on students and teachers—support some of the goals of IDEA (2004)
and NCLB (2001) to create greater access to core educational programs, improve student learning, and support qualified teachers.

Though no teacher in this study said that she would rely solely on the experimental curriculum for reading instruction, all six said that they would continue using the curriculum as a central part of their reading instruction for their students. Some offered suggestions for enhancing and supporting the curriculum. Two teachers suggested that more sight words be included, and one said that she’d hoped that the experimental curriculum would be adapted for the visually impaired.

Although this study provides valuable insights about the experimental curriculum and its impact on students and teachers, it was limited in its range. It was not within the scope of this study to measure student self-efficacy or student learning outcomes independently. Due to the challenges of measuring changes in learning with current quantitative assessments, studies such as this do provide an important source of data on the impact of reading curricula on students with significant developmental disabilities. We believe that teachers’ observations and perceptions of student learning offer valuable insights into teaching and learning and help to challenge the deficit view of students with developmental disabilities. We encourage further efforts to include their voices in research and curriculum design. Further research needs to be conducted on this and other reading curricula that seek to engage students with significant developmental disabilities early in their education to help them reach their full potential as learners.

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Note

1. The terms *emic* and *etic* were coined by anthropologist Kenneth Pike (1954) and are used by anthropologists to make a distinction between two perspec-
tives that can be used to study a society’s culture. Qualitative researchers have adopted this language to foreground their relationship with their informants, which is our intent by invoking these terms.

References


Appendix A

Semistructured Questions for Teacher Informant Individual Interviews

1. Tell me a little about yourself? Talk to me about your teaching experience. How long have you been at this school?
2. Tell me about your class. Can you describe your students and give me a sense of your instructional goals for them as their teacher?
3. I’d like to talk about the reading interventions you’ve been implementing with your students:
   a. Can you describe that for me?
   b. How does that vary from what you’ve done in the past?
   c. What has been the impact or effect on your students?
   d. What do you see as the benefits of this instruction? What about limitations or problems?
4. What impact has this had on you as a teacher?
5. What else would you like me to know?
Appendix B

Semistructured Questions for Teacher Informant Panel Interviews

While viewing video of classroom instruction together:

1. Talk to me about what you see here as we watch the video.
2. What do you look for on the part of students? Can you point out moments of success? Challenging moments?
3. What would you do differently?

After the viewing the tape:

1. What are the strengths or benefits of this instruction?
2. How do you measure student achievement?
3. What are the challenges in this instruction?
4. What do you hope will come as a result of this work?