Clinical Forum

Scaffolds for Learning to Read in an Inclusion Classroom

Elaine R. Silliman¹
Ruth Bahr¹
Jill Beasman
University of South Florida, Tampa

Louise C. Wilkinson
Rutgers, The State University of New Jersey, New Brunswick

ABSTRACT

Purpose: This article describes a study on the scaffolding of learning to read in a primary-level, continuous-progress, inclusion classroom that stressed a critical thinking curriculum and employed a collaborative teaching model. Two emergent reading groups were the focus of study—one group that was taught by a general educator and the other by a special educator. The primary purposes were to discern the teachers' discourse patterns in order to define whether scaffolding sequences were more directive or more supportive and the degree to which these sequences represented differentiated instruction for children with a language learning disability (LLD).

Method: Two students with an LLD and two younger, typically developing peers were videotaped in their emergent reading groups during an 8-week period. The distribution, types, and functions of teacher scaffolding sequences were examined.

Results: Both team members primarily used directive scaffolding sequences, suggesting that the assistance provided to children emphasized only direct instruction (skill learning) and not analytical thinking concerning phoneme-grapheme relationships (strategy learning). Distribution of scaffolding sequence types directed to the four students indicated that the two children with an LLD were receiving reading instruction that was undifferentiated from the two typically developing, younger children.

Clinical Implications: In order for children with an LLD to benefit from inclusion, explicit, systematic, and intensive instruction in phonological awareness and spelling-sound relationships should be implemented within the context of multilevel instruction that balances skill- and strategy-based learning.

KEY WORDS: inclusion, scaffolding, phonological awareness, word recognition, language learning disabilities

In the broadest sense, inclusion is a philosophy about educational purposes, values, and standards for all students (Karagiannis, Stainback, & Stainback 1996; Salisbury, Palombaro, & Hollowood, 1993). Results are mixed regarding the academic outcomes of inclusive schooling for students with disabilities (Salend & Duhaney, 1999). A significant problem complicating the evaluation of outcomes is the marked variations among studies. These include different definitions of inclusion, dissimilar methodologies in studying outcomes, disparities in students' ages and grade levels and the types of disabilities represented, and the instructional or intervention focus (McGregor & Vogelsberg, 1998). For example, few studies have specifically investigated the process of learning to read and spell in inclusion and the nature of outcomes for individual students as opposed to group outcomes (Keogh, in press; Speece & Keogh, 1996).

A major criticism of outcome studies is that they do not reveal information concerning the specific characteristics of

¹ First authorship is shared between the first two authors.
students who benefit from inclusion (Klingner, Vaughn, Hughes, Schumm, & Elbaum, 1998). As Westby (1994) noted: “Inclusion may be A student’s right, but it may not be Right for all students” (p. 22, author’s capitalization and italics). A particular issue is the effect of undifferentiated reading instruction on outcomes for students with learning problems (undifferentiated means that all students, regardless of disability status, participate in the same reading practices). The implication is that the undifferentiated reading instruction that is characteristic of general education, even when it is literature based and embedded in active learning strategies, fails to be adequate for “included” students with severe reading problems (Klingner et al., 1998). An important question is whether these children are precluded from being academically successful by the very nature of the reading activities in which they are asked to engage. The fact that a child is now “in inclusion,” in reality, may mean that little has changed.

A related issue is that the instructional discourse of learning to read and spell has received minimal attention in inclusion studies. A substantial body of evidence over the past 25 years documents that the prevention of reading failure is strongly correlated with explicit instruction in both phonemic awareness and word recognition (Adams, 1990; Blachman, 1997; Catts, Fey, Zhang, & Tomblin, 1999; Christensen, 1997; Ehri, 1997, 1998; Kamhi & Catts, 1999; Scanlon & Vellutino, 1997; Snow, Burns, & Griffin, 1998; Torgesen, 1999; Torgesen & Wagner, 1998; Treiman, 1998; Treiman, Tincoff, Rodriguez, Mouzaki, & Francis, 1998). An essential finding is that “getting started in alphabetic reading depends critically on mapping the letters and spellings of words into speech units that they represent; failure to master word recognition can impede text comprehension” (Snow et al., 1998, p. 6). Moreover, unstable word recognition skills significantly affect spelling accuracy (Bruck, Treiman, Caravolas, Genesee, & Cassar, 1998; Ehri, 1997). Despite the relevance of this research for all children learning to read and spell regardless of their disability or risk status, few studies in either general or special education have examined how the scaffolding of instruction influences children’s success or failure as readers.

### INCLUSION AND SCAFFOLDED INSTRUCTION

Discourse scaffolds function as an interactional mechanism for learning because the more capable teacher or speech-language pathologist provides graduated assistance to novice learners in order for them to achieve higher levels of conceptual and communicative competence. An effective scaffold provides “support at the edge of a child’s competence” (Gaskins et al., 1997, p. 45), defines students’ potential for new learning (their zone of proximal development), and, ultimately, “self-destructs...as the need lessens and the student’s competence grows” (Cazden, 1988, p. 104). A major controversy concerns the belief systems underlying concepts of “graduated assistance.” Two belief systems, often viewed as incompatible, are the knowledge transmission model and the instructional conversation model.

#### The Knowledge Transmission Model and Direct Instruction

Models of teaching and learning represent sociocultural belief systems concerning the teaching practices that various segments of a society value in schooling their children into literacy. One general model is the knowledge transmission model, which reflects a container perspective of competence (Duchan, Maxwell, & Kovarsky, 1999). In this model, students are viewed as empty vessels waiting to be filled with knowledge. Because students “lack” content knowledge, they also lack competence; therefore, the essential function of instruction is building competence (skills) directly through communicating a defined knowledge base (Mehan, 1994). The subsequent teaching voice of knowledge transmission is conveyed through adult authority and has been referred to as directive instructional discourse (Silliman & Wilkinson, 1994).

In regard to the teaching of reading, one rendition of the knowledge transmission model is direct instruction (Engelmann & Hanner, 1982), or skills-based instruction (Pressley, 1998). This form of explicit instruction emphasizes teacher-directed learning. Positive effects of direct instruction approaches have been reported primarily for students with learning disabilities in special education programs (e.g., Forness, Kavale, Blum, & Lloyd, 1997).

The underlying assumption is that a hierarchy of content must be directly taught in order for the child to become literate. One hierarchy might include proceeding from sound and letter identification to phonemic blending and segmentation, then establishing sound letter correspondences, and, finally, mastering the patterns of spelling. The nature of assistance is defined by scripted discourse formats. These predetermined formats provide objectives to be accomplished, the selection and sequencing of skills to be taught (such as identifying phonemes in spoken words before teaching about sound-letter correspondences), and procedures for maximizing the probability of correct responding (Hunt & Marshall, 1994). For example, a teacher or speech-language pathologist may first model the skill or response, then engage in guided practice where the child is led to the response, and then assess how adequately the student can produce the target. Often, the discourse of direct instruction is characterized by a particular pattern, known as IRE sequences. The adult initiates (I) a request for information that is already known to the adult (“What’s that sound?”), the student provides a reply (R), which is then followed by adult evaluation (E) regarding the accuracy of the student’s response (“That’s right!”). These scripted sequences function as an adult-directed discourse framework through which children are assisted to learn and are expected to demonstrate their emerging content knowledge of phonological-alphabetic relations. However, an issue is that direct instruction may encourage some children to remain as “spectators” in their own learning rather than active participants who are engaged and motivated.
The Instructional Conversation Model and Strategy Instruction

A second model of graduated assistance derives from the work of Vygotsky (1981). The premise of this model is that all development and learning originate as socially based activities because real learning always entails collaboration between children and adults as they jointly negotiate understanding each other. Furthermore, cognitive and social activity is always contextualized, including school learning, because all human activity is situated in sociocultural contexts that are inherently communicative (Wertsch, 1991, 1998); thus, the goal of schooling is to facilitate students’ learning how to learn, or strategic competence, so that they can “transfer what they have learned in school to everyday settings of home, community, and workplace” (Bransford, Brown, & Cocking, 1999, p. 61). Central to this strategic competence is knowing how to use the oral and written language systems as functional discourse tools for approaching learning as problem solving.

If schooling is to promote strategic competence in language and literacy learning for all students through instruction that is challenging, contextualized, and scaffolded (Bransford et al., 1999; Pressley, Wharton-McDonald, & Mistretta, 1998; Tracey & Morrow, 1998), then how might that be accomplished? One proposed mechanism is the instructional conversation, a basic form of teaching collaboratively through dialogue (Tharp, 1994). Instructional conversations serve as discussion-based formats for supporting the development of new conceptual understandings that have educational relevance for both skill mastery and strategic competence.

There are several components of instructional conversations. One general component is explicit modeling, where the adult verbally demonstrates to students the thinking process involved in problem solving through a “think-aloud” procedure, which makes visible that comprehension is an emerging process of understanding (Pressley & Afflerbach, 1995; Roehler & Cantlon, 1997). Another component is direct explanations and re-explanations. These are tailored to assist students to understand the underlying concept, including when or where the concept should be applied (Pressley & McCormick, 1995; Pressley & Woloshyn, 1995; Roehler & Cantlon, 1997), such as, “Use note taking when you know you must remember.” Invitations to participate in the conversation are a third component (Goldenberg & Patthey-Chavez, 1995). Through these invitations, students’ reasons for statements are solicited, as in, “Why did you arrive at that interpretation?”

Finally, a fourth category is feedback and clarifications, both of which are intended to assist students in learning how to verify that understanding has been achieved, or to revise when misunderstandings happen (Roehler & Cantlon, 1997). The relevant point is that, if scaffolding is to sustain children’s active engagement in instructional conversations that are fundamental for acquiring effective reading strategies (Guthrie & Anderson, 1999), then the critical ingredient is the kind of scaffolding devices used to achieve particular purposes, not the amount used (Palincsar, Brown, & Campione, 1993).

A problem with the concept of instructional conversations is that the specific discourse mechanism remains unexplained for how the transfer of responsibility occurs from adult-regulated to child self-regulated learning. Stone (1996, 1998) proposed that scaffolding sequences in instructional activities are interactions that are characterized by cycles of challenges and inferences. Challenges arise from teachers and students actively working to make sense of each others’ “goals and intents… and (to) integrate that insight into his or her evolving conception of the situation” (Stone, 1996, p. 256). To achieve a shared understanding of the situation, the teacher mediates interactions through supportive scaffolding sequences, adjusting the types and levels of assistance to the comprehension needs of individual students. With experience, students learn to infer what the activity means in the particular setting, the strategies to apply, and, eventually, to “appropriate” (Wertsch, 1998) the tools of the instructional conversation as their own for the purposes of self-regulating their learning. Thus, for the transfer of responsibility to happen in the sense of strategic competence, children must ultimately be capable of sharing teachers’ perspectives concerning the purposes and goals of supportive scaffolding sequences within activities (Palincsar, 1998). A major problem for children with a language learning disability (LLD) is that variability in their inferencing capacities (e.g., Bishop, 1997) may explain individual differences in the outcomes of scaffolded instruction (Donahue & Lopez-Reyna, 1998; Stone, 1998).

WORD RECOGNITION AND SCAFFOLDED INSTRUCTION

Research findings implicate both phonemic awareness and text comprehension as being equally important if children are to become good readers (e.g., Catts et al., 1999; Pressley, 1998; Snow et al., 1998). As a result, the effective teaching of reading is now viewed as requiring instructional practices that balance the acquisition of skills and strategies for both word recognition and comprehension (Pressley, 1998; Pressley, Yokoi, Rankin, Wharton-McDonald, & Mistretta, 1997; Snow et al., 1998). An unresolved issue for the role of supportive scaffolding in learning to read is that only three reports have specifically examined the supportive scaffolding of phonemic awareness and word recognition. None of these studies involved inclusion. In one study (Juel, 1996), the “teachers” were volunteer tutors who provided one-on-one support to children in a general education first-grade classroom and a self-contained special education classroom. The second study examined a clinical sample of 62 children (mean age = 9.6 [years:months]) with reading disabilities (Lovett et al., 1994). Results suggested that explicit (direct) instruction in phonemic segmentation, blending, and phoneme-grapheme correspondences contrasted with explicit scaffolded instruction that stressed four problem-solving strategies for analyzing phoneme-grapheme relationships produced different patterns of transfer. Both were found to
be equally important for more effective achievement in beginning reading. For example, direct instruction in phonological awareness and the alphabetic principle resulted in the transfer of this knowledge to the recognition of less familiar real words. In contrast, the strategy-based approach promoted transfer to the recognition of unfamiliar, but more challenging, multisyllabic words.

The most comprehensive description of how to apply supportive scaffolding systematically to the development of phonemic awareness and word recognition as an active, problem-solving process is the integrated curriculum of the Benchmark Early Literacy Program (Gaskins, 1998; Gaskins, Ehri, Cress, O’Hara, & Donnelly, 1996/1997). This guided instruction approach for children struggling to read integrates reading and spelling as the means for developing awareness of individual phonemes in spoken words, gaining insight into how letters represent phonemes in printed words, promoting active learning strategies to encode sight words in memory in a fully analyzed way, and applying word knowledge to the reading and writing of connected text as the experience “that makes instruction about sounds, letters, and words relevant and sensible” (Gaskins, 1998, p. 214).

Instructional conversations balanced with direct, or skills-based, instruction (Pressley, 1998) serve as the discourse medium for achieving these goals. A core tool is key words. These are high-frequency spelling patterns used to build a “word wall” that allows children to analyze phoneme-letter relationships completely (Gaskins et al., 1996/1997). The content and procedural aspects of this program are described in detail; however, specific outcome data remain unreported. A relevant question is whether individual differences in students’ sociocognitive, linguistic, and discourse development influence their ability to engage in and benefit from particular kinds of supportive interactions (Palincsar, 1998).

Four pertinent points arise from this review.

1. Supportive scaffolding is not a technique that is used sporadically; rather, it is a sociocognitive format for assisting children to take increasing responsibility for problem solving with the tools of literacy (Rosenshine & Meister, 1992).

2. Balancing direct instruction with instructional conversations may present teachers and speech-language pathologists with considerable challenges (Brown & Campione, 1994; Hogan & Pressley, 1997). These include the effective implementation of instructional conversations in large classes, adequately adjusting to the diverse communication styles of individual students, and the metacognitive demands inherent to continuously knowing what a child needs “on the spot.”

3. Effective strategy instruction through supportive scaffolding appears to be long term and must be integrated with ongoing instruction (Pressley, Brown, El-Dinary, & Afflerbach, 1995). Also, students with an LLD who have minimal levels of prerequisite phonemic awareness may require long-term support to make significant progress (Englert, Mariage, Garmon, & Tarrant, 1998; Klingner et al., 1998; Scanlon & Vellutino, 1997; Vellutino et al., 1996), which can be problematic in an inclusion program.

4. Stone’s (1996, 1998) concept of scaffolding sequences as cycles of communication challenges and inferences remains to be investigated within the social contexts of learning to read in an inclusive classroom.

This article describes a study that was conducted on the scaffolding of learning to read in a primary-level inclusion classroom in west central Florida. This class is one of two optional inclusion classrooms in the particular school, which are taught by an educational team that includes a speech-language pathologist. Both classrooms consist of general education students and students who have been identified with a severe LLD. The primary purposes of the study were to discern (a) the discourse patterns of two small-group reading activities in order to define scaffolding sequences and the degree to which patterns reflected a balance between supportive and direct instruction and (b) whether differentiated instruction characterized interactions with two children with an LLD contrasted with two, typically developing, younger children.

**METHOD**

The study followed two students with an LLD and two typically developing younger peers in their developmental reading groups over an 8-week period. The general educator (GE) led emergent group I; a teacher of specific learning disabilities (SLD) taught emergent group II. Both reading groups were followed in their inclusion classroom to observe the scaffolding patterns of the two teachers, including the types and distribution of scaffolding sequences.

**Classroom Organization**

*Theme-based curriculum.* The curriculum framework of the inclusion classroom is grounded to four strands deriving from Florida’s state standards and the benchmarks of the county school system, which reflect the state standards. A strand is made up of priority outcomes for various content areas, such as communication, literature, mathematics, music, art, health, science, and social studies. With team planning, themes are selected for integrating literature, writing, math, science, and social studies activities in a manner that will promote critical thinking through problem solving and meet the county benchmarks.

*Continuous-progress, multi-age.* In a continuous-progress classroom, emphasis is placed on the individual student’s developmental level rather than on the student’s grade level. For example, an 8-year-old student may not be reading at a transitional level of competence. According to the school district curriculum standards, a transitional level is one where the student has word awareness and decoding skills. On the other hand, a 6-year-old student may be reading at a transitional level. In a continuous-progress classroom, the 8-year-old and the 6-year-old would be supported at their current reading levels regardless of their grade in school. Thus, the continuous-progress philosophy
stresses developmental levels as the rationale for the design of individualized educational goals.

The multi-age component refers to the point that students of different ages are placed into the same class. Children’s ages in this classroom ranged from 5 years to 9 years, or the equivalent of kindergarten to grade 3. During the 1998–1999 school year, there were 30 children in the classroom, 8 of whom were identified as having an LLD and being eligible for a special education program (the names of all child participants have been changed to preserve confidentiality).

**Emergent Reading Group Participants**

*The educational team.* Responsibility for the classroom was shared by the GE, the SLD teacher, and a speech-language pathologist certified by the American Speech-Language-Hearing Association (ASHA). The speech-language pathologist had worked in a school setting for 11 years. This was her third year in this inclusion classroom, where she led a more advanced reading group. The three team members were all full time in the classroom. They collaborated through co-teaching practices, which are fully described in Silliman, Ford, Beasman, and Evans (1999).

The GE had a master’s degree in elementary education specializing in child psychology and early childhood and a recent doctorate in early childhood education. She had been teaching in an inclusion classroom for 3 years. Interview data indicated that the GE emphasized content learning, but did not employ a formal reading program. Her instruction was organized around “new letters” that were introduced weekly. Students read small teacher-created books that featured the target letter, practiced the letter book in pairs of two or three, and then spent individual time with the GE, reading the letter book aloud to her. Each reading activity typically ended with a review of words that had been learned recently. These words were written on chart paper and the students practiced word recognition either by searching for rhyming patterns or by spelling the words.

The SLD teacher held a master’s degree in varying exceptionals. She had 9 years of co-teaching experience, but the 1998–1999 school year was her first experience with the fusion of basic and special education goals into all curriculum activities. Interview data indicated that the SLD teacher also valued content learning as the primary focus of reading instruction. However, unlike the GE’s more informal approach to beginning reading, the SLD teacher had adapted reading mastery (Engelmann & Hanner, 1982). This direct instruction program explicitly emphasizes sound-letter correspondences, is a teaching approach popularly known as phonics (Stein, Johnson, & Gutlohn, 1999), and is presented in a highly scripted format. It appeared, however, that the SLD teacher’s description of her modifications to reading mastery were more consistent with an implicit phonics approach in which words, rather than isolated sounds, were presented as the unit to which children attended, as in, “Can you think of a word that begins with the same sound as *summer*, *sun*, and *sandbox*, and makes sense in the sentence?” (Stein et al., 1999, p. 276). The SLD teacher’s general format of instruction consisted of scripted sequences in which she introduced new words and modeled their pronunciation and spelling. Children were then expected to reproduce these words through choral responding.

*Children with an LLD: Jimmy and Jerry.*

**Jimmy.** At the onset of the study in October 1998, Jimmy was a third-grade, Caucasian male aged 9:0 who had been diagnosed with an LLD. From February 1994 to November 1996, he attended a public school early intervention program for children under 6 years of age. In November 1996, he was placed in an LLD program, which had been fused with a basic education class.

According to Jimmy’s 1998–1999 individualized educational program (IEP) that was prepared by his educational team, he had achieved print awareness, used picture cues to interpret text, and was beginning to finger point when he read familiar books. He was able to communicate written ideas independently through drawings. In addition, he had begun to write random strings of repetitive letters to represent words. Moreover, he was described as (a) being able to use “on-target vocabulary” and descriptive sentences some of the time and (b) a child who sought interaction with his peers. However, he still needed teacher supervision, combined with explicit directions, as external supports for successfully completing his modified classroom assignments. Based on this summary, Jimmy’s priority educational needs for the 1998–1999 school year included (a) word recognition (letter-sound identification), (b) vocabulary development for describing real-life situations in small- and large-group activities, and (c) increasing appropriate social interaction with his peers.

**Jerry.** In October 1998, Jerry, also a Caucasian male, aged 8:8, was in the same equivalent, third-grade, inclusion classroom as Jimmy, with the same educational team. However, Jerry was in emergent reading group I, whereas Jimmy was in emergent reading group II.

Jerry was placed in an LLD program in the school in February 1998. According to his 1998–1999 IEP that was written by his educational team, Jerry had print awareness, used picture cues to interpret text and decode new words, and was able to finger point when he read familiar books. With teacher assistance, he was able to communicate written ideas independently through short sentences using invented spellings. The IEP also reported that Jerry became easily frustrated when situations did not match his expectations. He depended on frequent teacher attention for reinforcement of his efforts and appropriate behavior. However, Jerry interacted successfully with younger peers. His priority educational needs for 1998–1999 were specified as (a) improving his decoding skills and word identification, (b) increasing his use of invented spellings, (c) increasing his ability to deal with frustration and teacher...
Typically developing peers: Bobby and Tim. In October 1998, Bobby, a Caucasian male aged 6:4, or the equivalent of first grade, had never been enrolled in any special education programs. Bobby and Jimmy were both in emergent reading group II, which consisted of five children.

Tim was also in first grade. He was a Caucasian male aged 6:5 who had not been enrolled in any special education programs. Tim and Jerry were members of emergent reading group I, which also had five children.

Phonological awareness abilities. Because phonemic awareness was emphasized in the two emergent reading groups, information was separately obtained concerning children’s basic development of phonological awareness. All of the children in Jimmy and Jerry’s reading groups were individually administered the Phonological Awareness Test (PAT, Robertson & Salter, 1997), a norm-referenced measure with acceptable psychometric characteristics (Torgesen, 1999; Torgesen & Wagner, 1998).

The PAT results are shown in Table 1. Only Jimmy and Jerry scored outside of the normal range of variability. Their scores placed them below –2 standard deviations. Of the eight subtests, Jimmy and Jerry scored within (borderline) normal range relative to age only on rhyming, the seventeenth and sixteenth percentiles, respectively. On segmentation tasks, both were able to do sentence segmentation, but encountered significant problems with the segmentation of multisyllabic words and the analysis of words into their phonemic elements. Both could variably blend phonemic elements into a whole, but, again, because of their ages, they received low standard scores, placing them at the first percentile or less. On the invented spelling subtest, which is not formally scored, Jerry appeared to be entering the semi-phonetic or letter-name phase; Jimmy seemed to be still in the pre-phonetic phase (Ehri, 1997). For example, for the word called, Jerry spelled “cal,” whereas Jimmy wrote “i.”

These performance patterns suggested significant developmental problems with various aspects of phonological awareness, including phonemic awareness and its connections to word recognition and spelling.

An additional source of information for the four children were their portfolios, which contained data on individual progress in spelling and writing over time. Portfolios were made available from the teachers.

**PROCEDES**

**Data Collection**

The two emergent reading groups were each videotaped weekly during October and November of 1998. This resulted in a total of 13 videotaped sessions, seven obtained from the GE and six from the SLD teacher. Average durations for each session were (a) 29 minutes for the GE (range = 21 min., 30s to 38 min., 18s) and (b) 34 minutes for the SLD teacher (range = 21 min., 6s to 47 min., 55s). Prior to each videotaping, the two teachers provided instructional objectives for the specific reading session.

In addition to videotaping, a microphone connected to an audio recorder was used to ensure maximum quality of the audio aspects of sound collection. All videotapes were then copied, with time overlaid in minutes and seconds.

**Identification of Scaffolding Sequences**

Individual running records were first completed for each of the 13 reading sessions. These running records were a written narrative description of the unfolding events that made up the reading activities, including the duration of topic segments (Silliman & Wilkinson, 1991, 1994).

Next, scaffolding sequences were identified from the running records and then reviewed for accuracy of identification from the videotapes. A scaffolding sequence was defined as a conversational sequence where a student was not able to participate without assistance in the activity and either

<table>
<thead>
<tr>
<th>Reading level</th>
<th>Team member</th>
<th>Student</th>
<th>Age</th>
<th>Exceptionality</th>
<th>Standard score</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergent I</td>
<td>GE</td>
<td>Lisa</td>
<td>5:3</td>
<td>None</td>
<td>Above norms</td>
<td>Above norms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ian</td>
<td>5:11</td>
<td>None</td>
<td>134</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maggie</td>
<td>5:11</td>
<td>None</td>
<td>105</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tim</td>
<td>6:5</td>
<td>None</td>
<td>87</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jerry</td>
<td>8:8</td>
<td>LLD</td>
<td>&lt;48</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Emergent II</td>
<td>SLD</td>
<td>Kira</td>
<td>5:3</td>
<td>None</td>
<td>117</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emma</td>
<td>5:4</td>
<td>None</td>
<td>138</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kyler</td>
<td>6:0</td>
<td>None</td>
<td>104</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bobby</td>
<td>6:4</td>
<td>None</td>
<td>95</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jimmy</td>
<td>9:0</td>
<td>LLD</td>
<td>&lt;48</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Note. Mean = 100, standard deviation = 15, GE = general educator; SLD = teacher of specific learning disabilities, LLD = language learning disability.
received help from the teacher (or a peer) in order to become a competent participant or was able to self-support competent participation through applying an appropriate strategy. As a minimal criterion, the guidance that a teacher provided had to be verbal, but could also include physical supports, such as helping a student point to words while reading.

Those portions of the instructional dialogue in which scaffolding sequences were embedded were then transcribed. The initial boundary of a scaffolding sequence was defined by who instituted support for the student. The terminal boundary was determined by the outcomes of the guided assistance. Durations of each scaffolding sequence in minutes and seconds, from the initial to terminal boundary, were also obtained from the time codes on the videotapes.

After identifying the boundaries of a scaffolding sequence, each sequence was then coded for type. Four possible kinds of scaffolding sequences were catalogued from the transcriptions, as defined in Table 2: modeling, offering explanations, soliciting verbal participation, and verifying/clarifying understanding. These sequences could occur singly or be embedded in others, and be initiated either by the teacher or by a peer. Each sequence was then examined for whether it met discourse criteria for a more supportive or more directive sequence (see Table 2).

**Agreement**

Agreement refers to the raters’ consistency in classifying the four types of scaffolding sequences, including whether sequences functioned in a more supportive or more directive manner. Interjudge agreements were conducted for two of the 13 videotaped sessions. Because the same transcribers did not code each video, two transcribers independently recoded two sessions that they had not previously coded. Rater consistency was determined through an inter-rater agreement formula (number of agreements/total number of observations x 100, then multiplied by the number of raters [2]). Classification agreement was 92%.

**RESULTS**

**Distribution of Scaffolding Sequences**

The first research question addressed the instructional discourse patterns of each reading activity, specifically, the nature of scaffolding sequences. Table 3 shows the frequency of scaffolding sequences according to whether they met criteria for more supportive assistance contrasted with more directive, or skills-oriented, instruction. As this table indicates, a total of 231 scaffolding sequences occurred across the 13 sessions. Of the 231, less than 1% (n = 2) of the sequences were supportive. These findings suggest that the nature of assistance provided to children emphasized direct instruction and not analytical thinking about phoneme-grapheme relationships. Because supportive assistance occurred infrequently, only directive sequences were considered further with nonparametric analyses.

**Types of directive scaffolding sequences**. The first analysis considered the distribution of scaffolding sequences by type. The χ² test for goodness-of-fit was not significant ($\chi^2(3, N = 2) = 7.327; p > 0.05$), indicating there were no differences in the proportion of scaffolding types that each teacher employed. As illustrated in Figure 1, both team members employed the explanation category the least often and the verbal participation category the most often. The majority of the scaffolding sequences in the GE transcripts were solicitations for verbal participation in the form of IRE sequences. On the other hand, the SLD teacher demonstrated no preference for types of scaffolding sequence, except, similar to the GE, she also used explanation minimally.

**Teacher patterns of scaffolding sequences**.

The GE, Jerry, and Tim. The GE’s discourse pattern was the traditional IRE sequence. She offered support most often when students encountered difficulty in decoding a word during oral reading. Her general strategy appeared to be one in which the child’s attentional resources were focused on initial letter identification, for example, through “telling” the child to “look at the letters,” followed by a request to identify the sound of the letter. If the child was still unsuccessful, the GE would variably “tell” either the letter name, its sound, or the whole word. This tactic could be potentially confusing for the emerging reader because no distinction is being made between phonemic and graphemic properties of words.

The GE’s basic pattern, then, was to activate the direct, or visual route, for letter or sight word recognition, with the more indirect phonological route activated only when children were unsuccessful. This approach was used with all five children in the group, including Jerry, as shown in this excerpt from a late October session. In this sequence, Jerry is reading a book aloud to the GE that he has previously read chorally with her and practiced in peer-directed reading. He is using “guided reading finger” to help track word awareness. In this technique, either the teacher or the child points to each word as it is said, in this instance, “and some honey that was hers...” (JE = Jerry; numbers indicate speaking turns; the arrow indicates the type of scaffolding strategy within the larger sequence that the GE selected; sequence duration = 44s)

1. JE/GE: And some honey was. (Jerry is reading)
⇒ 2. GE/GE: Look at the letters. (modeling)
   That.
3. JE/GE: That was mine.
⇒ 4. GE/GE: Okay, what does mine start with?
   (verifying [indirect] and soliciting verbal participation)
   What does mine start with?
5. JE/GE: m. (says letter name)
⇒ 6. GE/GE: Good. (verification)
⇒ Does this word start with m? (soliciting verbal participation – pointing to hers)

---

2 Table 2 is based on a synthesis of definitions, types, and examples of supportive directive scaffolding as found in the current literature.
Table 2. Types, definitions, and examples of supportive and directive scaffolding.

<table>
<thead>
<tr>
<th>Type</th>
<th>Nature</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
</table>
| Modeling           | Supportive| Externalized schemas designed to “work through” a specific problem-solving strategy in explicit ways; often includes reasons for strategy selection and specifying the strategy’s steps (Englert, Tarrant, Mariage, & Oxer, 1994; Roehler & Cantlon, 1997) | Think-alouds – Teacher verbally demonstrates thinking processes supporting consecutive steps in a task (Roehler & Cantlon, 1997):  
  - “Hmm. Two of the words I see in the sentence are words I just know. However, that long one isn’t one I just know, so I will just have to decode it...I will look at each letter from the beginning to the end and see if there are chunks that I know...Anyone have an idea how many chunks I should divide this word into to figure it out?” (Gaskins et al., 1997, p. 56)  
  - (a) Telling – “Look over here. You have your /g/ sound. Now do your vowel /go/” (teacher gives the initial consonant-vowel structure for “gold”).  
  - (b) Content retrieval – “That’s not a /d/. Flip it over and it’s a ______?”  
  - (c) More complex language use: “Tell us more about that,” “What do you mean?” (Goldenberg & Patthey-Chavez, 1995, p. 61).  
  - “A ‘u’ looks like a cup. Like this (holds up the letter) to hold water...like a little scoop. And that’s the lower case ‘u.’”  
  - (a) Contribute: “That’s a possibility, it could be TRANS LUH CENT. Are there other possibilities?” (Gaskins et al., 1997, pp. 57-58).  
  - (c) More complex language use: “Tell us more about that,” “What do you mean?” (Goldenberg & Patthey-Chavez, 1995, p. 61).  
|                    | Directive | The teacher engages in direct teaching of the concept or skill that is the focus of misunderstanding (Englert et al., 1994); may involve either (a) “telling” the child directly what content to think about without further information on how to resolve the problem (Hogan & Pressley, 1997), or (b) providing indirect cues, such as phonemic prompts, as a method to retrieve content presumed to exist. |  
| Explanations       | Supportive| An explicit statement attuned to the child’s emerging understanding about the concept being learned (propositional knowledge), why and when the concept can be used (conditional or situational knowledge), and how the concept should be used (procedural knowledge) (Roehler & Cantlon, 1997) | “You’ve told me a lot about how to decode this word. You told me to break it into manageable chunks, and you told me how many chunks make up the word based on the number of vowel sounds.... Finally you were flexible and suggested several way to pronounce the word” (Gaskins et al., 1997, p. 58).  
|                    | Directive | Explanations may not semantically integrate propositional, situational, and procedural knowledge; students may be directed to attend to only one source of knowledge as the justification for understanding the concept. |  
| Verbal participation| Supportive| Teacher invitations to participate (Goldenberg & Patthey-Chavez, 1995; Roehler & Cantlon, 1997): (a) provide opportunities for students to contribute parts of the task that they may know and understand, (b) elicit students’ reasons to support a statement or position, and (c) create opportunities for more complex language production through invitations to expand |  
|                    | Directive | Participation is typically solicited by initiate-reply-evaluate (IRE) sequences and generally limited to giving the correct answer to teacher questions; student language use is usually confined to single words or short phrases. |  
| Verification/clarification | Supportive | Teacher responsive to, rather than evaluative about, whether student’s emerging understanding is reasonable; if the contribution is not reasonable, then clarification is sought (Gaskins et al., 1997; Roehler & Cantlon, 1997) |  
|                    | Directive | Evaluation component of IRE sequence (E) conveys personal judgement about the accuracy of the target response through either (a) positive evaluation, (b) negative evaluation, or (c) neutral evaluation (Silliman & Wilkinson, 1991); judgements may be direct or indirect. |  
|                    |          |                                                                                                                                                                                                           |  
|                    |          |                                                                                                                                                                                                           |  

This excerpt demonstrates three findings. First, it illustrates how a single scaffolding sequence often consisted of multiply embedded subsequences that were typically short in duration. Second, the focus on identification of the visual features of letters often resulted in Jerry using context guessing as a primary “decoding” strategy (e.g., the semantically based response “mine”). Finally, it crystallizes how the GE expected children to make connections between sound and letter correspondences on their own. The nature of this complex inferencing is exemplified in the subsequence where Jerry had to infer that what was required of him was to relate the letter “m” with its phonemic counterpart as the way to differentiate “mine” from “hers.”

Elements of the same pattern occurred with Tim, a typically developing group member, as the next example shows. Scaffolding sequences were multiply embedded, the primary nature of assistance focused him on the visual features of words, and the phonemic aspects were only referred to when Tim made a mistake in word recognition. In this excerpt taken from the same October session, Tim is reading his book to the GE and also using the guided reading finger approach. He misidentifies “with” as “she.” (T = Tim; sequence duration = 15s)

1. T/GE: She. (reading)
   ⇒ 2. GE/T: What does she start with? (soliciting participation)
3. T/GE: /sh/ (makes the sound)
   ⇒ 4. GE/T: The sh sound, does this have an s-h? (pointing to with and saying letter name) (soliciting participation)

Table 3. Distribution of scaffolding sequences for the GE (n = 7 reading sessions).

<table>
<thead>
<tr>
<th>Scaffolding sequences</th>
<th>GE</th>
<th>SLD</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>More supportive</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>More directive</td>
<td>163</td>
<td>66</td>
<td>229</td>
</tr>
<tr>
<td>Subtotals</td>
<td>165</td>
<td>66</td>
<td>231</td>
</tr>
</tbody>
</table>

Note. GE = general educator, SLD = teacher of specific learning disabilities.

Figure 1. Proportion of more directive scaffolding sequences (n = 229) for the general educator (GE) and the teacher of specific learning disabilities (SLD).

---

Silliman et al.: Scaffolds for Learning to Read 273
5. T/GE: No.
⇒6. GE/T: What does this have? (pointing to with) (soliciting participation)
7. T/GE: w-i/ (says letter names)
⇒8. GE/T: So I should hear you say with. (modeling)
9. T/GE: With. (target word)

Unlike Jerry, Tim was able to recognize more easily the onset or initial sound (\(S\)); thus, he did not need to engage in the same complex inferencing as Jerry. In other words, Tim did not have to “guess” the sound-letter relationship as Jerry did. Moreover, whether Tim might have been able to figure out “with” on his own remains unknown.

The SLD teacher, Jimmy, and Bobby. Across all children in the group, the SLD teacher used phonemic segmentation as a primary strategy when children could not decode a word on their own. The SLD teacher used highly scripted discourse where she modeled “her turn,” either reading a whole word or segmenting a word, followed by the child’s next turn where repeating the “model” was expected. This form of modeling also led to IRE sequences as the primary interactional characteristic of scaffolding. As with the GE, these sequences were multiply embedded and brief in duration. A major difference between the IRE sequences of the SLD teacher and the GE was that the SLD teacher more often directed scaffolding sequences to the entire group. In contrast, the GE organized each reading session so that individual time was spent with each child. The SLD teacher did not have a comparable individual segment.

Like the GE, the SLD teacher’s basic strategy typically invoked the visual route, followed by the phonological route, only if the child’s use of the visual route failed to identify the word. However, the SLD teacher was more consistent than the GE in distinguishing between sounds and letters. The next scaffolding sequence, taken from an early October session with Bobby, a typically developing child, shows the scripted nature of her discourse, and her modeling of segmentation of spoken and written words as an identification method. In this session, children are learning the pronunciation, spelling, and reading of seven high-frequency “vocabulary” words (is, for, you, that, the, it, he), using flashcards on a ring. The task is to identify the word from the flashcard and then write the word on a worksheet in order to encode the word in memory. (B = Bobby; sequence duration = 25s)

1. SLD/B: You know this word (holding up flash card with that).
⇒ What word? (soliciting verbal participation)
⇒3. SLD/B: Real close (verifying –indirect)
   It has a /t/ (says sound) (modeling)
⇒ Sound it out. (soliciting verbal participation)
⇒ /th/ /a/ /t/ (segmenting sounds) (modeling)
⇒5. SLD/B: What word? (soliciting verbal participation)
7. SLD/B: Look at the word (explanation)
   Look at this word.
   Let your eyeballs see the picture.
   Get ready, say it.
⇒ That. (modeling)

8. B/SLD: That. (target word)
⇒9. SLD/B: If you take the ‘t’ off, what word do you have? (says letter name)
   Hat.
   I don’t like that hat, just remember that. (explanation)
    In contrast to the use of both the phonological and the visual routes with Bobby, the SLD teacher primarily evoked aspects of the visual route with Jimmy, the child with an LLD. For example, she used spelling segmentation as well as gestural representation of the letter as a means for Jimmy to infer the letter name. In this late October session, Jimmy is spelling new vocabulary words on a worksheet. He encounters a problem in recalling the spelling of “was.” (JI = Jimmy; sequence duration = 33s)

⇒1. SLD/JI: They’re making you break the code, Jimmy.
⇒ Here you have three letters here.
   Something a-s. (spelling) (soliciting verbal participation)
   Look up here.
   Something a-s. (spelling)
2. JI/SLD: Front door. (“mental image” applied to recall letter position in a word)
⇒3. SLD/JI: What would go on the front door? (soliciting verbal participation)
   Do you know what letter?
   What letter is that? (points to “w”) What letter is it?
⇒ It’s a w (modeling). (holds up three fingers to make the letter w)
   Hold up your hand like this for me.
   It’s a w (says letter name)
4. JI/SLD: w
5. SLD/JI: Yep.

**Teacher Differentiation of Directive Scaffolding by Student and Group**

The study’s second purpose was to determine whether the two teachers differentiated among the scaffolding needs of the two children with an LLD, Jimmy and Jerry.
contrast with the needs of the two typically developing children, Bobby and Tim. Table 4 displays the distributions for the four types of scaffolding as a function of the child to whom assistance was provided or when the GE or SLD teacher directed a general scaffolding sequence, collectively, to the five children in each of their reading groups. The group data have been combined. The \( \chi^2 \) test for goodness-of-fit examined the distribution of scaffolding sequences by child and group combined. Results were not significant \( \left( \chi^2(12; N = 5) = 19.973; p > 0.05 \right) \). This finding was interpreted to mean that the distribution of scaffolding sequences was similar across all child participants; therefore, in terms of the individual children and their teachers, the GE directed scaffolding relatively equally to Jerry and Tim, as did the SLD teacher to Jimmy and Bobby.

Because the \( \chi^2 \) test only provides information on the extent to which the proportion of predicted versus obtained frequencies may differ, a question concerned whether the actual frequencies obtained across the four categories were significantly different for each child or the group combined. A Friedman’s analysis of variance (ANOVA), a nonparametric equivalent to the one-way ANOVA, was selected to address this question. In this case, the results of the Friedman’s ANOVA were statistically significant \( \left( \text{ANOVA}; \chi^2 (N = 5, df = 3) = 11.88; p < 0.008 \right) \), suggesting ranked differences across scaffolding types. Similar to the results for the individual teacher analysis, the explanation category proportionately occurred the least often and the verbal participation category proportionately occurred the most often. Within the verbal participation category, scaffolding sequences directed to the group occurred most often. In these situations, the conversational floor was open and any child could bid to answer. An implication from these findings is that the two children with an LLD were participating in ways that were “undifferentiated” from their matched peers. In other words, Jimmy and Jerry were not being assisted any differently than Bobby and Tim or, perhaps, any other group member.

**DISCUSSION**

The study’s first purpose was to describe the discourse patterns of a general educator and special educator in an inclusion classroom in order to determine the extent to which scaffolding sequences represented dialogues that were more consistent with instructional conversations or skills-based (direct) instruction. The learning activities in this inclusion classroom were driven by a critical thinking philosophy that was implemented through a theme-based and integrated curriculum and co-teaching practices; therefore, the expectation was that a problem-solving approach to reading would emerge in the form of instructional conversations reflecting this orientation. At least for the teaching of beginning reading, a gap emerged between beliefs and actual discourse practices.

The quantitative and qualitative analyses for the two team members indicated that, for the most part, the team’s discourse styles during reading sessions were consistent with the “gentle inquisitions” (Eeds & Wells, 1989) found in a knowledge transmission model where IRE sequences predominate. The two teachers approached learning to read somewhat differently and evidenced individual preferences for particular types of discourse devices that may have been opportunistically motivated. In addition, some of the instructional supports for a problem-solving approach were in place. These included a “word wall” for key words learned, small-group time for more individualized instruction, and the incorporation of reading and writing across the curriculum, which afforded intensive experience with literacy activities for different purposes. However, despite these tangible supports, the GE and SLD teacher generally shared in common discourse styles designed to assess children’s content knowledge concerning sound-letter correspondences. These styles were also consistent with a container perspective of competence (Duchan et al., 1999), which has as a core belief that children acquire skills through how adequately teachers as authorities convey a distinct knowledge base (Mehan, 1994).

This rendition of the knowledge transmission model was reproduced in how the activity of emerging reading was negotiated through the discourse patterns of direct instruction. The achievement of competence with the alphabetic principle appeared to be defined as guiding children “through the alphabet,” with the expectation that individual sounds (both consonants and vowels), letters, and their relationships would be mastered as the product of this guidance. For example, the GE concentrated on children recognizing individual letters, particularly initial position letters, as the focus of instruction during reading, whereas the SLD teacher appeared to take more of a whole-word approach, where children practiced storing high-frequency words in memory by recognizing individual letters or letter sequences that made up spelling. In both situations, the children’s task involved the literal recall of the specific content being solicited, such as letter names, a sound-letter correspondence, or the accurate spelling of monosyllabic words. Success for individual children, including Jimmy and Jerry, depended on how readily the requested content could be retrieved independently or, alternately, recalled through the teachers’ eliciting repetitions of the correct content or the cues provided for inferring the correct response.

An unresolved issue for the two children with an LLD is whether the level of instruction was outside of their zone
of proximal development and, therefore, too difficult. Did they possess sufficient prerequisite knowledge about phonemes and graphemes for them to be appropriately responsive to directive scaffolding sequences? For example, Jimmy, at age 9 years, still did not have adequate command of either letter names or sounds. Three sources of information suggest that Jimmy remained in the prealphabetic phase of development (Ehri, 1997): results from the PAT portfolio data containing his attempts at writing, and the fact that this academic year was Jimmy’s third year in the inclusion classroom, as well as his third year in the emerging reading group. Jerry, in contrast, at age 8:8, seemed to be in transition between the pre-and partial-alphabetic phases based on the PAT results, similar portfolio data on writing, and his patterns of responsiveness to the GE’s scaffolding. For example, with explicit support, Jerry could occasionally use partial phonetic cues to decode words, such as drawing on initial or final consonants, but could not yet focus on vowels. A significant instructional question for Jimmy and Jerry concerned not whether direct instruction was appropriate for them, but whether the kind of direct instruction found was sufficient to maximize their content knowledge concerning relationships among phoneme awareness, word recognition, and spellings. In fact, analysis of the two teachers’ discourse patterns showed that the phonological underpinnings of word recognition and spelling were used only as an adjunct to a primary emphasis on sight word learning as the pathway for achieving word recognition.

The nonsystematic incorporation of phonological information and strategies into the direct instruction of learning to read may have been due to a combination of factors. One issue specific to the particular educational team may be uncertainty about methods for systematically integrating phonological awareness into a curriculum that is influenced by a whole language philosophy. Torgesen (1999) summarized three other factors that may contribute to knowledge and skills not being taught methodically. These include (a) insufficient knowledge about the development of phonological awareness, as well as the empirical evidence supporting its centrality in learning to read; (b) misunderstandings about the level of skills that individual children, like Jimmy and Jerry, bring to the task of inferring sound-letter relationships; and (c) the need for explicit and systematic instruction in phonemic awareness, word-level recognition, and spelling as an essential vehicle for facilitating the major outcome of any effective reading program—a large vocabulary that supports the accurate and effortless reading of words in order to comprehend the meaning of text.

The second major intent of the study was to determine whether the GE or SLD teacher modified her instructional discourse for Jimmy and Jerry in ways that differed from the two typically developing children, Tim and Bobby, who were 2 and 21/2 years younger, respectively. Individual differences existed among the four children in their developmental levels of phonological awareness. Individual differences also materialized in how the GE and SLD teacher responded to each child based on their assumptions concerning that child’s competence. In spite of these differences, patterns of scaffolding sequences across children, including their temporal durations, showed that instruction was essentially undifferentiated for Jimmy and Jerry. In fact, the actual amount of interactional time that their teacher engaged them in was at least equal to or greater than the time for Bobby and Timmy. A critical point is that students like Jimmy and Jerry can present perplexing challenges to their educational team when undifferentiated reading methods fail to produce expected outcomes. This finding has important implications for determining who may profit from inclusion and how they can benefit.

An inherent component of a continuous-progress, inclusion classroom is multilevel, or differentiated, instruction. In inclusive schooling, multilevel instruction means that the amount of support and curriculum adaptation necessary to meet individual needs should vary (Salisbury et al., 1994). Although themes remain identical across age levels, instructional expectations and objectives, as well as materials, vary according to individual needs in order for the “included” student to be successful in learning activities. Thus, in this educational model, curriculum adaptations are organized vertically because of the developmental level concept that is built into a continuous-progress classroom. More individualization is possible through vertical groupings than is found in the typical general education classroom. The result is a paradox. On the one hand, a positive benefit of multilevel instruction in the inclusion classroom is that, in theory, similar expectations are held for students having similar developmental levels. For example, the content of instruction and performance standards were similar for all of the students in the two emerging reading groups, irrespective of whether they had an LLD or regardless of their ages. The paradox resides in the finding that, within the emerging reading groups, the expectation appears unwarranted that Jimmy and Jerry can succeed with the identical direct instruction provided to their younger peers in the group.

In building effective multilevel instruction in the inclusion classroom where both skill- and strategy-based approaches to learning to read are incorporated, a major role for the speech-language pathologist involves heightening the team members’ awareness regarding the diverse sociocognitive, linguistic, and discourse needs of children with an LLD. In other words, if successful academic outcomes are to occur for students like Jimmy and Jerry, then a number of issues need to be continuously evaluated.

- The selection of practices for the teaching of strategies requires ongoing evaluation. For example, the research-based evidence is that successful strategy use depends on how adequately children are guided to integrate content knowledge with the knowledge of how to use a strategy and when and where to apply it (Bransford et al., 1999). Moreover, striving toward strategic competence as a reader means that children must learn to take responsibility for their choice of strategies, rather than continually comply with strategies that teachers or speech-language pathologists offer (Pressley & Woloshyn, 1995).
• Careful monitoring is required of the individual differences that exist among children in their responsiveness to the integration of problem solving with skills instruction, as well as the long-term academic effects for individual children of the content, intensity, and duration of a more balanced approach to beginning reading (Keogh, in press; Troia, 1999).

• Because of the metacognitive demands involved, the introduction and maintenance of supportive scaffolding through instructional conversations will require that educational teams engage in risk taking. Hogan and Pressley (1997) presented guidelines for developing expertise with this form of dialogue. A key element of expertise is knowing when supportive scaffolding is appropriate for particular instructional goals.

In the end, the question is how inclusion can best work for students who have an LLD. The answer to that question depends on the extent to which teachers and speech-language pathologists collectively understand the language basis of reading, writing, and spelling. The answer also depends on the ability of educational teams to integrate direct instruction with strategy-based instruction in systematic ways. Most importantly, the demonstration of effective outcomes may also rely on how skillful educational teams become in scaffolded instruction that assists students in becoming responsive to and responsible for their own learning. Perhaps the larger question is not inclusion or special education, but the scaffolding practices employed that best meet children’s individual needs, engage them in real learning, and assist them to realize their potential as contributing members of a community of learners.

ACKNOWLEDGMENT

This study would not have been possible without the collaboration of the three educational team members, the students, their families, and the Pasco County, Florida School Board. In addition, other contributors who helped in the many phases of data collection were Nicole Kiely, Judith Schiavo, Jessica Mabry, Maria Rosa Brea, and Steven Everling of the Department of Communication Sciences and Disorders, University of South Florida, and Sarah Varga, a parent volunteer.

REFERENCES


Gaskins, I. W., Rauch, S., Gensemer, E., Cunicelli, E., O’Hara, C., Six, L., & Scott, T. (1997). Scaffolding the development of intelligence among children who are delayed in learning to read. In K. Hogan & M. Pressley (Eds.), Scaffolding student learning:
Instructional approaches and issues (pp. 43–73). Cambridge, MA: Brookline.


Received October 18, 1999
Accepted March 21, 2000

Contact author: Elaine R. Silliman, Department of Communication Sciences and Disorders, University of South Florida, BEH 255, Tampa, FL 33620. Email: silliman@chuma1.cas.usf.edu