Scaffolding Emergent Writing in the Zone of Proximal Development

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Abstract

Scaffolded Writing is an innovative method of supporting emergent writing based on Vygotsky's theory of learning and development. This article discusses the theoretical notions underlying the method: the zone of proximal development, scaffolding, materialization, and private speech. A description of Scaffolded Writing is given along with classroom examples. A case study of 34 at-risk kindergarten children is reported that illustrates the effectiveness of this method in supporting children's emergent writing. Changes in the use of Scaffolded Writing by the participants of this study provide insight into the mechanisms of the transition from assisted to independent performance within the zone of proximal development.

In recent years, there have been many and varied successful applications of the Vygotskian concept of the zone of proximal development (ZPD) to the area of literacy learning (e.g., Burkhalter, 1995; Combs, 1996; Steward, 1996). These applications, often developed as instructional programs, generally demonstrate the viability of providing children support within their ZPD and describe various ways to increase their level of performance beyond what learners may achieve on their own or with instruction that is out of their range of capabilities.

Most of the programs use the assistance of more capable others, likely peers or teachers, to support the learning of individual children. Consistent with Vygotsky's own emphasis, the process and the outcomes of the interactions between the child and the other participants in the dialogue are typically presented in a verbal form, through different forms of discourse (e.g., Au, 1997; Brown, Ash, Rutherford, Nakagawa, Gordon, & Campione, 1993; Cazden, 1981; Moll, 1990). In the work of Vygotsky's followers, such as Daniel Elkonin and Pyotr Galperin, it was found that for young children, the progress within their ZPD can be further enhanced when not only social interactions are present, but also special instructional techniques are utilized (Elkonin, 1963, 1969, 1974; Galperin, 1969, 1985, 1992). Going beyond the original Vygotskian theoretical insights

An International Journal of Early Reading and Writing
An Official Publication of the Reading Recovery Council of North America

by incorporating the research and practical applications of colleagues and students of Vygotsky can significantly expand our current understanding of the concept of the ZPD and perhaps strengthen its effect on educational practices.

It is the purpose of this article to describe "Scaffolded Writing"—a Vygotskian-based technique developed to support and investigate emergent writing. Scaffolded Writing is a method inspired by the work of Elkonin and Galperin but applied to an area that neither of them originally studied—self-generated messages of young writers. The Scaffolded Writing method involves the use of two techniques—*materialization* and *private speech*—that became the center of instructional interventions used by Vygotskians in Russia, but which are not equally popular in Western education. The Scaffolded Writing method will be discussed both as a way to examine children's literacy development in the ZPD and as a teaching technique that might be used in a classroom setting.

Before discussing materialization, private speech, and Scaffolded Writing, we will review the relevant concepts of the zone of proximal development and scaffolding, and their application to the teaching and learning of young children.

Relevant Concepts

The Zone of Proximal Development

The zone of proximal development is the Vygotskian concept that defines development as the space between the child's level of independent performance and the child's level of maximally assisted performance (Bodrova & Leong, 1996; Vygotsky, 1978). Abilities that are fully developed exist at the level of independent performance. Those skills that are on the edge of emergence and that can be enhanced by varying degrees of assistance are located within the ZPD (see Figure 1).

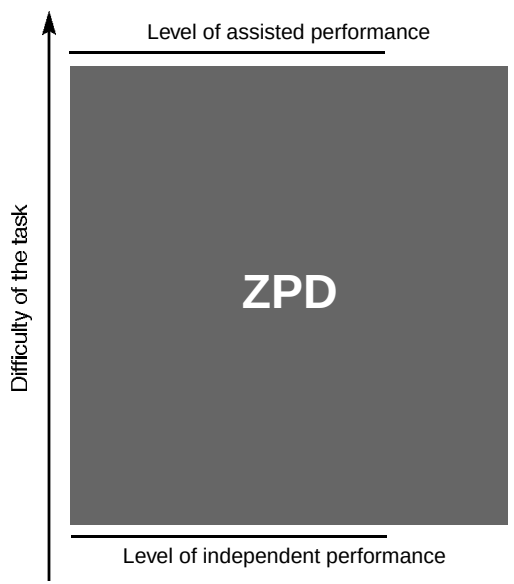

Figure 1: Zone of Proximal Development

As a new skill or concept is mastered, what a child can do one day only with assistance, soon becomes his or her level of independent performance (see Figure 2). For example, if today a child can write her name only when a teacher shows her how to form each letter, tomorrow the same child

may need only initial prompting to finish the rest of writing by herself. At any given moment, there are tasks that lie outside of the child's ZPD, such that no amount of assistance will facilitate learning. In the above example, writing an entire story is clearly outside this particular child's ZPD.

Although the concept of a ZPD was later broadened by contemporary Vygotskian scholars to serve as a general metaphor for human development in a sociocultural context (e.g., Newman & Holzman, 1993), in this paper we will use the more narrow definition of the ZPD used by Vygotsky himself to tie together instruction and development. For Vygotsky (1934/1987),

> Instruction is only useful when it moves ahead of development. When it does, it impels or wakens a whole series of functions that are in a stage of maturation lying in the zone of proximal development. This is the major role of instruction in development. … Instruction would be completely unnecessary if it merely utilized what had already matured in the developmental process, if it were not itself a source of development. (p. 212)

Scaffolding as a Way to Facilitate a Child's Transition from Assisted to Independent Performance

The term "scaffolding" was coined by Bruner (Wood, Bruner, & Ross, 1976) to specify the types of assistance that make it possible for learners to function at higher levels of their zones of proximal development. The term

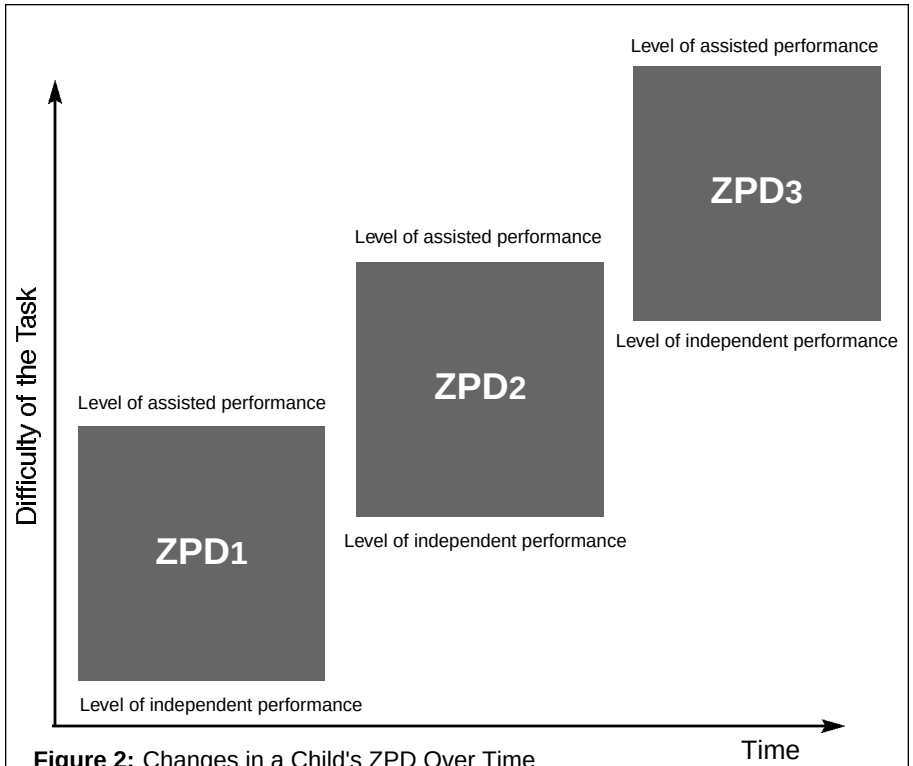

Figure 2: Changes in a Child's ZPD Over Time

"scaffolding" is currently used to describe how an expert can facilitate the learner's transition from assisted to independent performance (e.g., Berk & Winsler, 1995; Meyer, 1993).

According to Bruner, the "scaffolds" provided by a teacher do not make the task itself easier, but rather make it possible for a learner to complete the task with support. Initially, the maximum amount of teacher assistance is needed to elevate the student's performance to its highest potential level. Gradually, the level of assistance decreases, as the learner becomes capable of doing more independently. At this point, the teacher "hands over" the responsibility for the performance to the learner, removing the scaffolds. Now the learner can function independently at the same high level at which he or she was previously able to function only with assistance or scaffolds (see Figure 2). In Vygotsky's words, "What the child is able to do in collaboration today he will be able to do independently tomorrow" (Vygotsky, 1987, p. 211).

For scaffolding to be successful, teachers must help learners develop strategies they can apply to novel problems they will encounter, not just answers to specific questions. For example, when a child is confronted by an unknown word, rather than telling the child the word, the teacher may scaffold problem solving by prompting the child to use strategies within his or her range, such as using pictures for clues. Eventually, the child no longer needs the teacher's help and can activate the necessary strategy unprompted.

Scaffolding is a relatively recent term that originated in the West, and was not used by Vygotskians themselves. The idea of scaffolding, however, resonates well with another concept that was used by Pyotr Galperin, Daniel Elkonin, and their colleagues. Their concept of "step-by-step formation" (Galperin, 1969, 1985) emphasizes gradual transfer of responsibility from an expert to a novice with the help of two specific tactics—*materialization* and *private speech*. Thus, materialization and private speech provide what Western psychologists would describe as the scaffolding needed to support learning.

Materialization and Private Speech—Two Ways of Providing Assistance Within a Child's ZPD

Materialization, as described by Galperin (1969), refers to the use of tangible objects and physical actions to represent or "stand for" a concept or strategy as the *mental* action is being learned. Materialization helps the child focus on the critical aspect of the concept or strategy that is to be internalized. The physical action not only parallels the mental action the children will soon internalize, but actually shapes this action (Galperin, 1969, 1985, 1992). For example, when children use Cuisinare rods to construct a set equal to ten, the physical action of composition parallels the mental mathematical principle of addition. As the children work with these Cuisinare rods, the concept of number becomes clearer. Another example involves the use of a "word window" where children have a frame they use to place around each word as they read. The window materializes the concept of "word" as a separate entity, that which is contained within the frame. The child's action of moving it to frame one word and then

another, shapes the mental process of seeing words as distinct entities.

If materialization is applied correctly, it enables learners to function at the highest levels of their zones—to perform tasks that are more difficult than ones they can perform without materialization. Moreover, the use of materialization facilitates the development of new mental actions that allow learners eventually to function at the same high level without assistance. Not all tangible objects have equal value in terms of materialization, however. Only the ones that affect the essential components of the new emerging competence are useful. In the above example of establishing word boundaries, the use of a pointer may not provide support that is as strong as the use of a "word window" for a particular learner. This is because the movement of the pointer allows for both continuous and discrete motions. If the learner slides the pointer under the words in a continuous motion—not stopping at each word—the materialization may not focus attention on the discrete character of "word", thereby not supporting the learner adequately.

Furthermore, in order for materialization to lead to substantial gains in performance, it must be coupled with private speech (Galperin, 1969, 1985, 1992). Private speech not only assists the child in using the materialized actions and objects effectively, it is also a necessary step in appropriation and in the transition from assisted to individual functioning (Bodrova & Leong, 1996; Galperin, 1969). Private speech is defined as self-directed, regulatory speech. It involves giving oneself audible directions on how to proceed. Very common in young children, it can be seen most prominently when they are faced with a new and difficult task (Berk, 1992). In the above example of Cuisinare rods, children will often count aloud— "Put 1.. 2.. 3.. 4.. 5.. 6.. 7.. 8.. 9.. 10 of these." At the early stages of learning to read, children may read aloud all the words, but even as they start reading "silently," they still occasionally revert to private speech when faced with a difficult or especially long word.

Both materialization and private speech are temporary supports. Their use becomes unnecessary once the mental actions are internalized by the children. Eventually, children will not need the Cuisinare rods to help them solve number problems and they will stop using the pointer or a "word window" to read. Materialization and private speech are consistent with the definition of scaffolds (Wood, Bruner & Ross, 1976) because they are designed to provide assistance at the beginning and to be removed as learners' abilities develop.

Several studies conducted in the Vygotskian tradition have demonstrated that materialization and private speech produced the greatest gains if used by young children who require external support for most of their mental actions (e.g., Galperin, 1985; Leont'ev, 1932/1994; Venger, 1986). For example, Daniel Elkonin applied these two tactics in his well-known study of phonemic awareness in preschool- and kindergarten-aged children (Elkonin, 1963, 1974). This study, as well as its numerous replications in Russia, demonstrated that the use of materialization and private speech significantly increased the children's ability to analyze words into sounds even before children were introduced to the letters of the alphabet. Children who were

taught using Elkonin's program learned to read faster than those who were not, and scored better on the measures of metalinguistic awareness (Bugrimenko & Zukerman, 1987; Elkonin, 1963, 1971; Karpova, 1955; Khokhlova, 1955). One adaptation of Elkonin's technique is used in the West, primarily by Reading Recovery teachers. In this program, children push pennies into "sound boxes" or "letter boxes", drawn by the teacher, that represent the sounds or letters as they analyze a spoken word into its component phonemes and find letters to represent them (Clay, 1993).

Development of Emergent Writing in Kindergarten

Prior to a description of the scaffolded writing technique that is the focus of this article, a brief review of the literature on emergent writing is in order. According to Sulzby (1996), most kindergartners primarily use drawing, scribbling, and non-phonetic letter strings as they write. The use of invented spelling at this age is rare in general, but some children begin to mix invented spellings in with their scribbles and letter strings. Only a few children can be expected to use invented and conventional spelling—primarily when writing isolated words. Sulzby reports that when children become very excited and motivated, they tend to revert back to more immature forms of writing, although the content and length of their stories increase. This reversion to less-advanced appearing forms was also confirmed by the research of Marie Clay (1975).

In a detailed analysis of children's writing, Gentry (Gentry & Gillet, 1993) identified distinct levels of emergent writing. The progress from one level to the next one is marked by the changes in letter formation, completeness of phonemic representation, and correspondence between oral and written messages. At the first level, messages are represented by scribbles, marks, and pictures. Children at this level do not produce letter-like forms. At the next level, which Gentry called "pre-communicative", children have some control of letters, but do not use them to represent sounds. The letters or letter-like forms are written but the writing cannot be read by anyone but the writer, and cannot be reread many days later even by the writer. The next level is referred to as "semi-phonetic" where letters are used to represent the word, but the phonemic representation is not complete. For example, one to three letters are used to represent the entire word. At this stage, conventional directionality is present. A more advanced stage is "phonetic" when children use letters to represent all of the sounds in the word including vowels. Writing at this stage contains some words that are spelled phonetically correctly. The invented spelling of the next level, which Gentry termed "transitional", is based on children's memory of visual patterns rather than sound patterns. Although children may use some correctly spelled words while at phonetic and transitional levels, consistent use of conventional spelling does not appear until the final "conventional" level, typically attained when children are much older than 5 years of age (Gentry & Gillet, 1993).

A review of the literature on emergent writing revealed that there are no norms for expected levels, but, according to Sulzby (1992), there does exist a general, descriptive, developmental progression of the characteristics of writing. In terms of the zone of proximal development, such a progression might suggest that, when provided appropriate scaffolding, a child might be expected to write using more developmentally advanced forms than the same child could do when unassisted. Scaffolded assistance in the child's ZPD may also affect the quality of the child's message, perhaps making it longer and more meaningful.

Scaffolded Writing—a Vygotskian-Based Method to Support Emergent Writing

In an effort to support practice with Vygotskian theory, we developed a technique called "Scaffolded Writing" which uses a combination of materialization and private speech to support emergent writing. In Scaffolded Writing, a highlighted line is used to materialize each unit of oral speech (Bodrova & Leong, 1995). Like the Cuisinare rod that materializes the concept of number, the highlighted line materializes the concept of "word." The child creates his or her own message and then—with teacher's help or independently—draws a highlighted line to stand for each word in the message. Private speech coincides with the drawing of each line so the link between the spoken word and its materialized line is made clear. The child then fills out the empty lines, placing scribbles, letter-like forms, or letters on the line to stand for the word in the message.

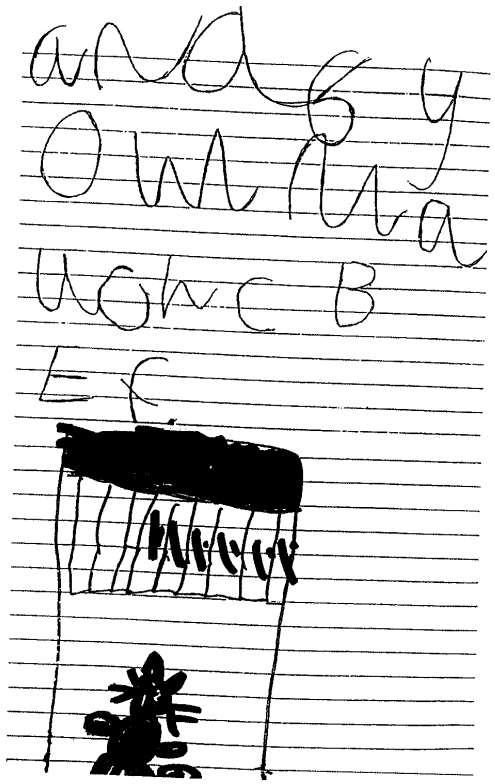

Figure 3: Amanda's Sample of Unassisted Writing

Scaffolded Writing is intended to be a temporary tool. Just as in other types of scaffolding, the technique begins with the assistance of someone else providing support, then is followed by a period when the children use the scaffolds on their own as a transition to self-assistance, and, finally, all scaffolds are eliminated as learners can perform the task unassisted.

Teacher-assisted use of Scaffolded Writing. In the beginning, the teacher provides maximum assistance for writing by demonstrating the use of the highlighted lines and by modeling how to use private speech. The teacher asks the child to say aloud the message he or she wishes to write and repeats the message for the child to confirm its accuracy.

Then the teacher and the child repeat the message together as the teacher draws a line to stand for each word in the message. At this point, the teacher returns the piece of paper with only the lines drawn on it back to the child. The child then recreates the message by writing the "word" on each of the lines using any symbol within his or her developmental level (e.g., scribble, letter-like form, letter, or letter combination). While the child is writing, the teacher may help the child with "sounding out" the words or encourage the child to use an alphabet chart. The teacher-child interactions are relatively brief and can be carried out not only in one-on-one settings, but also when the teacher works with a group of 4-6 students.

The following classroom vignette illustrates the process. Amanda, the little girl featured in this vignette, attended a kindergarten classroom and typically produced several writing samples a week during journal writing or other literacy activities. Amanda's example of writing before she began to use Scaffolded Writing is shown in Figure 3. This serves as a baseline with which to compare her writing using Scaffolded Writing.

Ms. Martinez asked Amanda to draw a picture and think of a story to go along with the picture. When the picture was finished Ms. Martinez said, "We are going to draw lines with the highlighter to help you remember what you want to write. We will plan your story one sentence at a time. Tell me what you want to write." Amanda said, "The cats are sitting at the table." Ms. Martinez said, "You want to write, "The cats are sitting at the table?" Amanda said, "Yes." Ms. Martinez repeated the sentence slowly making a line with a highlighter pen for each word in the message (See Figure 4). The lines were made to fit the size of the word—the line for "the" was smaller than the line for "table."

Then Ms. Martinez said, "Let's go back over our plan (pointing to the lines). You said you wanted to write, "'The cats … '" With teacher prompts, Amanda pointed to each highlighted line and continued the sentence all the way through to "table." After the teacher was sure that the materialization matched the child's private speech, Ms. Martinez handed the paper with the lines to Amanda, and said, "Now that you can remember what you want to write, go ahead and write it out on the lines. Say each word as you write it on the line to yourself. If you can't remember the word, go back to the beginning of the message and say the sentence aloud again."

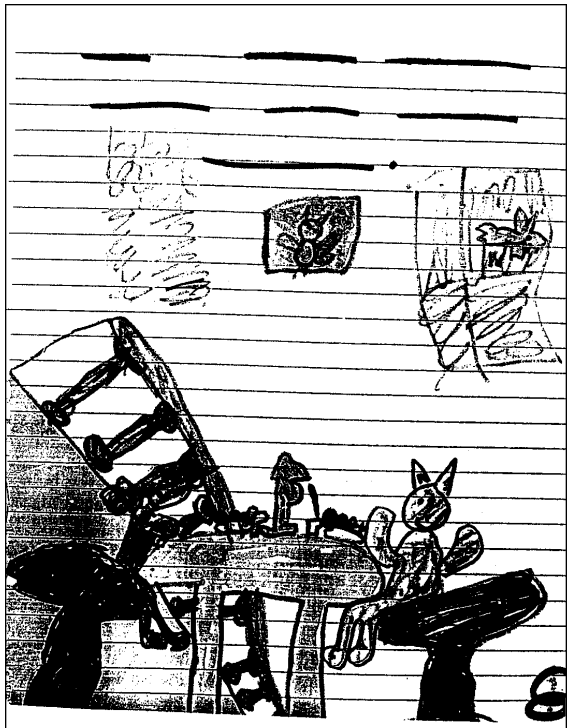

Figure 4: Teacher's Materialization of Amanda's Self-Generated Message

Amanda wrote on the lines. After Amanda finished writing the word "sitting," she couldn't remember the next word she wanted to write. She started reading the sentence aloud from the beginning, pointing to each word as she read. Rereading the first words in the message prompted the word "at." With each new word, she would whisper the sentence from the beginning. See Figure 5 for the completed message.

After writing "words" on all of the lines, Amanda was asked to read her message back. She pointed to each word as she read exactly what was written on the lines.

Independent use of Scaffolded Writing. During this stage, the children use Scaffolded Writing independently, with no help from the teacher. They may still consult the alphabet chart, other children, and the classroom dictionary for sounding out words, but the message planning, creation of the lines, and writing are completed without any assistance. Children continue to use the strategies they have learned at the teacher-assisted stage. If their message consists of more than one sentence, they plan one sentence at a time, and add other ideas later. They also continue using private speech, both while planning their message and later, when they cannot remember a certain word. As they reread their sentences, they make occasional self-corrections when they notice a mismatch between the number of words in their oral language and the number of lines on the paper. In this case, they continue trying to read the sentence to reconstruct their ideas and to remember the missing words. When they reread the entire

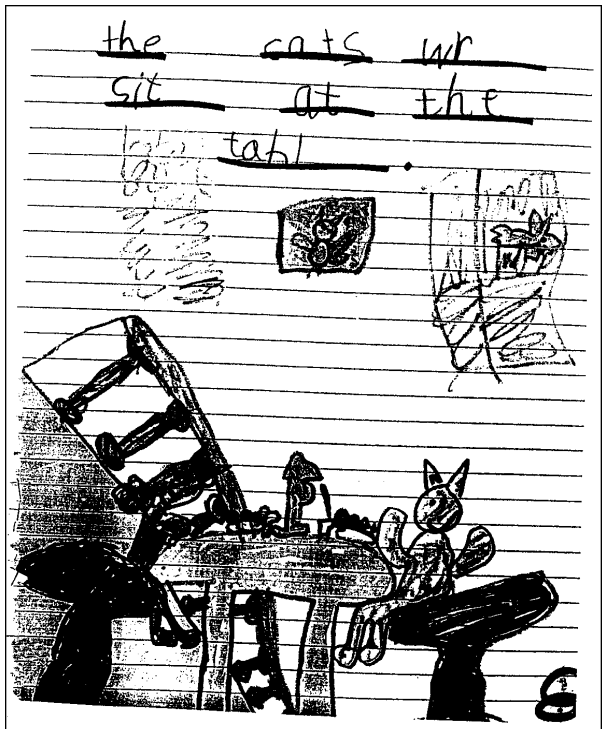

Figure 5. Amanda's Sample of Scaffolded Writing (Teacher-Assisted Stage)

message on their own, they may edit for meaning, replacing one word with another.

The following is an observation of Amanda several months later, after Ms. Martinez has encouraged her to use Scaffolded Writing by herself.

Amanda finished drawing her picture and said the first sentence of her message aloud, making a line for each word. She then put the highlighter down and immediately began to write the message on the lines. At this point, she consulted the alphabet chart a couple of times, and asked another child for help with the word "apartment." She did not ask the teacher for help. She repeated the process, planning each sentence, and then writing on the lines. Each new sentence was planned after she had reread the previous sentence.

*After Amanda wrote the last sentence, she reread the entire message to herself and only then she asked Ms. Martinez to come and listen to her story. When reading back her writing, she continued to point to each line as she was saying the word. (*See Figure 6.*)*

Eventually, the children discontinue the use of the lines altogether, being able to plan and monitor their writing process without external scaffolds. By this time, children are writing very long sentences and their stories consist of several sentences. Children in the final stage often say that the use of the lines "slows them down" so they stop using the scaffolds on their own. In Vygotskian terms, when children discontinue their use of an external scaffold, it suggests they have the idea or concept internalized and no longer need materialization coupled with private speech (Galperin, 1969, 1985, 1992; Vygotsky, 1978).

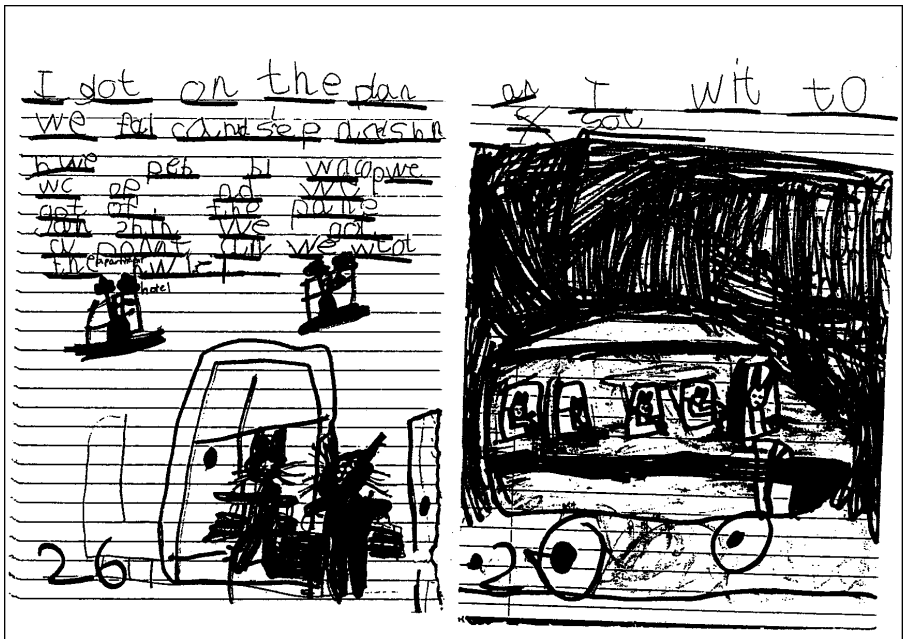

Figure 6. A Sample of Amanda's Independent Use of Scaffolded Writing

It has been our experience that the timing of this final stage varies from one child to another. Typically, all kindergarten children, no matter how early they start using Scaffolded Writing, continue the use of lines for the whole year. Older children, however, tend to drop the use of lines much sooner, even if their initial unassisted level of writing is comparable to that of the kindergartners.

How Scaffolded Writing Supports Performance Within the ZPD—a Case Study

In a case study to investigate the impact of Scaffolded Writing on emergent writers, we compared samples of unassisted and Scaffolded Writing from a group of 34 kindergartners who used the technique during the school year. We hypothesized that the use of Scaffolded Writing would tend to support the next developmental level within the child's Zone of Proximal Development. If a child were scribbling, then Scaffolded Writing would support the child's use of letters and letter-like forms. If a child had begun to write letter-like forms, then the child would be able to produce phonetic representations of the first sound, and so on. We also hypothesized that children would increase the length of their stories because the line would act as a tool for memory. Thus, both the quality of the message and the use of more developmentally advanced writing forms were expected to increase simultaneously as a result of scaffolding.

Subjects

The participants were 34 five-year-olds who attended half-day kindergarten in a low-income, multi-ethnic, urban school. Over 90% of the children in this school qualified for receiving free or reduced lunch. The students at this school were considered to be an "at-risk" population by the district. The Scaffolded Writing technique was implemented in four classrooms (two morning sections and two afternoon sections) that were taught by two teachers.

The two teachers who participated in this study were trained in the use of the Scaffolded Writing technique during an in-service workshop. The teachers used the technique twice a week with small groups of four to six children. In addition to Scaffolded Writing opportunities, children participated in a literature rich environment that included considerable amounts of reading by the teachers, the use of big books and rhymes, and a great deal of writing modeled by the teacher using Scaffolded Writing. There was no formal reading instruction nor were phonics or letter drills a part of the kindergarten curriculum.

Procedure

Writing samples were collected from the normal journal writing activity that occurred three times a week. The sample collected in September that contained the most extensive writing effort was used as the baseline for unassisted performance. This sample was compared to two examples of Scaffolded Writing. One was taken in November after teachers had used Scaffolded Writing for approximately one month, and the other in May when the children

were using Scaffolded Writing on their own.

Gentry's Scale of Writing (Gentry & Gillet, 1993) was used to demonstrate the children's progress in forming letters, representing sounds, and moving toward conventional spelling. Gentry's scale was chosen because it had the clearest and the most detailed definitions of the characteristics of each level. Children were rated to be at a specific level if 75% or more of their writing was consistent with the level described. Writing samples were analyzed by three independent raters.

In addition, the writing samples were analyzed for the meaningful quality of the message, that is, the extent to which the message made sense (Sulzby, 1992). These characteristics were rated independently on a yes or no basis. Information from the children's rereadings was collected using teachers' anecdotal records.

Figure 7: Typical Examples of Kindergarten Children's Unassisted Writing

Results

See Table 1 for a summary of the results. In September, before teachers started to use Scaffolded Writing, 20 out of the 34 children were at the level where they used scribbles and pictures to represent their stories. Some of them would not attempt to write on their own at all, preferring to dictate their stories to the teacher. Fourteen of the children began at the pre-communicative level.

Table 1 Summary of the Results of the Case Study Children's Writing With and Without Scaffolding from September through May

Level / Date of the Sample	Scribbles, Marks, or Pictures Only	Pre-Communicative	Semi-Phonetic	Phonetic/ Transitional
September (Unassisted)	20	14	0	0
November (Teacher-Assisted Scaffolded Writing)	1	10	23	0
May (Independent use of Scaffolded Writing)	0	9	17	9

Many of these children wrote messages that were not related to the picture. Some of the messages contained lists of unrelated words while other messages contained sentences. Only two children generated long and involved oral stories that they attempted to record. There were no attempts to use invented spelling. Letters used in the written messages did not correspond to the phonemes present in the oral stories. Children were unable to reread their messages consistently and were more likely to make up a completely new story rather than remember what they intended to write. Figure 7 shows typical examples of children's writing in September.

By November, when the second sample was collected, the children had been using Scaffolded Writing for a month with the teacher representing each word of the message with a highlighted line. At this time, all of the children except one were writing at a level higher than their initial level as shown in Table 1. As measured by Gentry's Scale, of the children who in September were at the level of scribbles, all but one were now at the pre-communicative level and nine were now writing at semi-phonetic level. The child who did not show any progress continued to use scribbles mixed with random letters.

The November sample showed that all of the children initially at the pre-communicative level, moved to the semi-phonetic level. Most of the children had begun to represent some sounds with letters. All of the children wrote beginning sounds consistently. Some also included ending consonants and medial vowel sounds in some of their words. All of the messages were now read immediately after the writing with the children pointing at the lines as they read. All the messages were meaningful. There were no lists of unrelated words and all of the messages were directly related to the pictures. Figure 8 shows examples of teacher-assisted use of Scaffolded Writing.

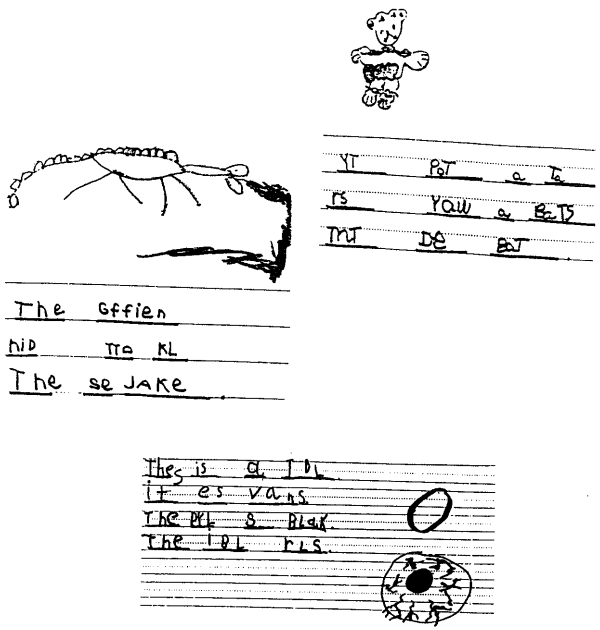

Figure 8: Examples of Children's Use of Scaffolded Writing--Teacher-Assisted Stage

In May, after using Scaffolded Writing for eight months, children began to draw highlighted lines when planning their own

messages. By this time, the children were able to materialize the message on their own and use private speech without the teacher's help. The teacher no longer helped the children extensively with their writing, offering only occasional assistance with the sounding out of certain words.

Judging by the May samples, children had made even greater progress in the use of phonetic representation of words and invented spelling. None of the children used scribbling or random letters to represent words. All representations were phonetic in some way. Some children wrote several sentences that formed a story. All of the children could read back their story and would point to each line while reading the intended word, whether it was fully or only partially represented by letters. Simple sight words were conventionally spelled and all other words were written in invented spelling. The invented spelling of some children reflected their reliance on the sounds of the word (e.g., “uv” for “of” or “ol” for “all”) as well as reliance on visual memory (e.g., “two” for “to”). These children’s writing combined the characteristics of phonetic and transitional levels. None of the children reached the level of conventional spelling. By May, all of the children continued to write meaningful messages and the number of messages that contained more than one sentence increased. Teachers reported that the rereadings had become more accurate. Figure 9 illustrates typical examples of writing when children were using Scaffolded Writing independently.

Teachers reported they had not before had at-risk children in their classrooms who wrote so much and who were so advanced in phonemic representation. They reported that by May, they did not have to direct any writing—that children wrote during journal time, often electing to stay to write rather than moving on to other activities. There was tremendous interest in reading their messages to others as well as reading messages written by others. Many children demonstrated a stronger interest in reading than the teachers had expected.

Figure 9: Examples of Children's Independent Use of Scaffolded Writing

Discussion

As we can see from the data, the use of materialization and private speech in the form of Scaffolded Writing did produce more advanced writing compared to the level of writing the children produced when unassisted. The progress was demonstrated in the use of more advanced appearing forms of writing, increased use of invented spelling, and increased length and quality of the messages. The difference between unassisted writing and Scaffolded Writing varied between individual children indicating the differences in their zones of proximal development.

Scaffolded Writing followed the predicted path of all scaffolding — it began with assistance by another person, was eventually appropriated or used by the children with little outside support, and later became unnecessary as internalization occurred. After the scaffolds were removed, the performance remained at a high level—there was little regression to earlier less-advanced appearing forms. The fact that children did not decrease their level of writing after the teachers’assistance was no longer present, suggests that materialization and private speech became the children’s own “tools”.

It is difficult to ascertain from the literature typical levels and rates of development for the average kindergarten child. However, in comparing these data to the levels of writing identified by Sulzby (1996), these children seem to be performing at higher levels than expected—particularly for an at-risk population. Nevertheless, the current study is a preliminary one, and the degree to which Scaffolded Writing assists children more than other methods of writing instruction needs to be investigated empirically with controlled studies.

In conclusion, we suggest that Scaffolded Writing provides educators with both a novel research tool to examine children’s learning of literacy skills and an effective way to support early writing. As a research tool, Scaffolded Writing makes it possible to establish the higher level of a child's ZPD when the lower level is determined by the child’s unassisted writing. It also provides a different context to study the relationship between different strands in the development of emergent writing. For example, in our study, it was observed that an increase in message length was not necessarily accompanied by a decrease in the developmental form of writing.

The Scaffolded Writing method also holds promise as a new instructional technique that may be used by classroom teachers. It allows teachers to provide appropriate individual support while at the same time to work with a small group of children. Scaffolded Writing facilitates the transition to independent writing. It supports the child's message production, thus preserving the critical link between meaning and writing. It helps the child to distinguish the “word” within the flow of that message and stabilizes the link between meaning, oral speech, and the written word. It adds to our repertoire of appropriate types of support in the area of emergent literacy—expanding the tactics to include materialization and private speech. In this way, we fulfill Vygotsky’s ideal that, “The teacher must orient his work not on yesterday’s development in the child but on tomorrow’s. Only then will he be able to use instruction to bring out those processes of development that lie in the zone of proximal development” (Vygotsky, 1987, p. 211).

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Note: The names of the Russian authors have been romanized in a number of different ways. We have used the most common spellings. Listed in parentheses are common alternative spellings: Vygotsky (Vygotski, Vigotsky, Vygotskij); Elkonin (El'konin); Galperin (Gal'perin); and Leont'ev (Leontjev).

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Drs. Bodrova and Leong have published extensively in the field of early childhood education. Some of their most recent collaborative efforts include: *Tools of the Mind: The Vygotskian Approach to Early Childhood Education* (1996) published by Merrill/Prentice Hall; "Scaffolding the Writing Process: The Vygotskian Approach" in *The Colorado Reading Council Journal* (1995); "Adult Influences on Play: Vygotskian Approach" an article in the edited book titled *Play and its Role in Development*, published by Garland Press; three videos by Davidson Film — *Vygotsky's Developmental Theory: An Introduction; Play: The Vygotskian Approach;* and *Scaffolding Self-Regulated Learning in the Primary Grades.*