Differences in Schema Gap: A Case Study

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As Deanna described her son's latest interest in reading and his responses to what he read, we marveled at how far he had come as a reader in the past few years. That morning, Deanna had watched 11 year old McKenzie as he searched in total absorption for clues to decode the alphabetic runes in J.R.R. Tolkien's *The Lord of the Rings* (1974). Already, she noted, his compiled dictionary of runes was so complete that he could write decipherable messages to family and friends.

As Deanna continued to reflect on McKenzie's interaction with the works of Tolkien, she shared how he had written diary entries for two characters, Thorin and Bilbo in *The Hobbit* (1938). McKenzie first cited the passage describing the incident to which Thorin and Bilbo would react. Then he wrote several entries about the incident from Thorin's point of view and several from Bilbo's. The entries clearly reflected the distinctions between the two characters as well as their unique reactions to the same incident.

To those who know Deanna, McKenzie's accomplishments would not seem remarkable. In fact, this is what would be expected of a child who had been weaned on the works of Robert McCloskey, Maurice Sendak and Rudyard Kipling and whose mother taught children's literature at a
college. Yet, to us, McKenzie's present whole-hearted engagement with the sophisticated writings of Tolkien was indeed noteworthy for it was just a short time ago that his parents were concerned about him as a reader. A few years ago, as McKenzie approached second grade, his parents noticed that as much as he loved to be read to, he avoided reading. When asked to read, his oral performance indicated that he could decode and pronounce individual words but could not weave them together to make sentences that had the rhythm and rate of spoken language. McKenzie was not using his intuitive knowledge of spoken language when he read, nor was he using the semantic and syntactic cues embedded in the text. He was mainly relying on graphophonic clues. When he read aloud, the reading was incomprehensible to the listener. When asked to tell about what he had just read, McKenzie was unable to do so. Yet, when his parents read to him, McKenzie had always enjoyed commenting on fascinating characters, unique word choices of authors, conflict sustained by action, and style of the illustrations.

McKenzie's parents were worried about him, for they knew of children who at McKenzie's age began a downward spiral in reading accompanied by a loss of self esteem as a learner. This can happen in a classroom during round robin reading, for example, because no matter how basal readers may be disguised in terms of levels, all children know who is a good reader and who is not. Those who read slowly and in a word by word pattern are considered poor readers by their peers. This perception, in turn, may cause the readers to think of themselves as less able, which in turn may cause them to avoid reading, thus compounding the problem. To us, it seemed that McKenzie was at risk as a reader because our concept of reading included not only fast and accurate word recognition which is necessary for fluency, but also meaningful interaction with the text. McKenzie was neither
exhibiting fluency nor gaining meaning. We know that proficient readers, even at first and second grade levels, use all the language cue systems in an integrative manner and do not rely on just one as McKenzie was doing with his exclusive use of graphophonics. Therefore, we turned to the literature on at risk students expecting it to offer some insights into children such as McKenzie. We were surprised at what we found.

We first discovered that there is no consensus in the literature on what the term at risk student means. Some writers refer to the general characteristics of schools while others focus on student characteristics. Cuban (1989) simply describes at risk schools as urban. Similarly, Firestone (1989) describes at risk high schools as those which have students with poor attendance, a high drop out and teen pregnancy rate, and poor relationships among students of different ethnic groups. In contrast, Gersten and Dimino (1989) describe at risk students as those who are low achieving, learning disabled or below grade level readers. Slavin and Madden (1989), likewise, define at risk students as those who are in danger of failing to complete their education with an adequate level of skills. They list risk factors that include low achievement, retention in grade, behavior problems, poor attendance, low socioeconomic status and attendance at schools with large numbers of poor students.

None of these descriptions of at risk students fits McKenzie. Here was a child who regularly attended a suburban school that did not have large numbers of poor or ethnically different students, who was not a low achiever, who had never been retained in a grade, and who was not a behavior problem. McKenzie came from a professional family, had been read to since birth, lived in a house overflowing with reading materials and had a command of spoken language far
beyond his chronological age. Here was a child who, given all of his advantages, should have easily become a reader. Yet this was not the case.

Why was it, then, that we thought that McKenzie, at age eight, was at risk as a reader? What was the explanation for his failure to become a reader in the true sense of the word? In our search for an answer, we found direction in an article by Pogrow (1990). Pogrow labeled students in Chapter 1 programs as those who are at risk, but rather than listing risk factors such as attendance and retention, he attributed their difficulties to the skills-based instruction they were receiving. Pogrow believed that these students were at risk due to inadequate and improper instruction based on a knowledge deficit theory. Pogrow contended that these students did not have a knowledge deficit and did not need a program based on such a theory. Instead, Pogrow believed that they needed a program which developed their thinking skills and learning strategies. These students, he found, were unable to transfer and generalize their basic skills to contexts different from the ones in which the skills were learned. This inability interfered with information acquisition and caused the students to look as though they had a knowledge deficit. Pogrow therefore developed a higher order thinking skills program (HOTS) to train students in learning strategies that has been successful with an entire population of students.

What we decided, based on information in Pogrow's article, was to look at McKenzie's understanding of the reading process. Like the students Pogrow described, McKenzie did not really have a knowledge deficit; he learned the skills he was taught in his skills based linguistic reading program. He could decode and pronounce words just as he was taught to do. Moreover, he did not have the risk factors previously discussed. Guided by Pogrow's notion that some students
cannot generalize information and concepts from the context in which they are learned to other contexts, we compared McKenzie's home-learned concept of reading to the way he was instructed in his classroom reading program. Could McKenzie's understanding of the reading process be contributing to his at risk behavior? We suspected that it was.

At home, McKenzie had listened to stories from birth. In doing so, he had been well prepared for the acquisition of literacy. He had begun to understand what Wells (1986) describes as

the "symbolic potential of language": its power to create possible or imaginary worlds through words — by representing experience in symbols that are independent of the objects, events, and relationships symbolized and that can be interpreted in contexts other than those in which the experience originally occurred (p. 156).

Furthermore, through discussion of stories with his parents, McKenzie had extended his view of the world and increased his vocabulary. In addition, through talking about the story with his parents, he was provided with a "validation for his own inner storying" which Wells defines as "that internal mode of meaning making which is probably as deeply rooted in human nature as in language itself" (p. 152). McKenzie listened to stories containing characters who interacted in interesting ways and who resolved problems and conflicts. At home he experienced literature filled with language rich in description which evoked vivid mental images and which contained a variety of sentence and plot structures. Therefore, when he entered school, McKenzie had a well developed schema about stories and the way stories sound and work.
However, at school McKenzie was put in an instructional reading program based on the belief that before children could read stories such as those to which he was accustomed, they had to know the graphophonic system of the English language and have the ability to blend sounds into words which fit specific patterns. Although the children in his class were read to fairly frequently, their instruction for independent reading consisted mainly of letter-sound drills using packets of similarly spelled words in a list format. McKenzie's first contextual reading materials encountered at school had sentences constructed of monosyllabic words all of which represented the same sound-spelling principle, which used stilted language structures such as *Mat is a cat. Mat sat. Mat is a fat cat.* Such materials did not contain the story structure, the language or literary elements familiar to McKenzie. They also did not provide a basis for discussion to extend vicariously his view of the world because they did not contain characters involved in resolving conflicts interesting to him. In essence, the program in which McKenzie was instructed was so different in philosophy, form and materials from what he experienced at home, he was unable to use his previously learned concept of reading and story. Therefore, like the students Pogrow described, McKenzie was unable to connect and transfer his home learned view of reading to that which was presented in his classroom. This, we hypothesized, along with the school's inability to provide appropriate instruction, put him at risk as a reader.

McKenzie, unfortunately, is not the only child to encounter such an experience. Manning and Manning (1989) published a similar account of their daughter's kindergarten reading instruction experience. In this case, the child had entered kindergarten already reading fluently but actually lost this ability when subjected to a phonics based program similar to the one McKenzie was in. Again, there seemed to be a
mismatch between the child's internalized concept of reading and that on which the school's reading program was predicated and which resulted in confusion for her.

But McKenzie's story has a happy ending for, as the reader can tell from the opening scenario, McKenzie has become a voracious reader. This phenomenon began the summer before McKenzie entered second grade when Lorraine gave him her set of Bill Martin's *Instant Readers* (1972) and the accompanying audio tapes. She had successfully used these materials in her classroom to develop children's reading fluency and confidence when she was an elementary teacher, and thought perhaps they would work with McKenzie. The stories in these materials contain predictable story and sentence structures as well as repetitive phrases which encourage and allow the reader to use intuitive knowledge of the syntactic and semantic systems of spoken language in conjunction with graphophonic knowledge. In addition, each story is accompanied by a tape to which the child can listen while following along visually in a book. Guitar music on the tape which matches the rhythm and intonation of the textual phrases further aids the listener in understanding of the music of language.

McKenzie and Deanna listened to these tapes daily for 20-30 minutes for a two week period in August of the summer preceding McKenzie's entrance to second grade. McKenzie readily accepted the Bill Martin materials with the same enthusiasm he exhibited for all the other literature his parents presented to him. At the conclusion of that two week period, McKenzie was not only reading the Bill Martin books fluently, but he was also voluntarily reading other books in his home library with equal fluency and understanding. When asked to tell how the Bill Martin materials helped him to learn to read, McKenzie said:
They inspired my reading. After mom and I spent time with them, I blossomed in my reading. Before we did the Bill Martin books, I could read easy, single words, but I couldn’t read hard literature because I hadn’t read enough easy literature. I wasn’t fluent enough at sounding words out.

We were surprised at this response since the Bill Martin tapes and books contain no graphophonic lessons. Yet, as we thought about his response, we realized that McKenzie was using terminology that he had learned about reading in his school instructional program. When asked to explain, McKenzie further stated:

Bill Martin just motivated me to want to read more because it was so much fun learning to read. He helped me understand books more. When you’re fluent at sounding out words, you get meaning. And I also realized that I was smart. So now look at me! Generally I’m bored if I don’t have a book to read after school.

The Bill Martin books and tapes are a better match for McKenzie’s schema of the reading process, for they use entire texts and stories and, because of Mr. Martin’s proficiency with the guitar, they provide the rhythm of language that was missing in the school’s instructional program. In effect, these materials — as similar materials with predictable patterns, repetitive phrases, colorful language and wholistic texts would do — helped this child bridge the gap between his personal reading schema and the schema on which his school instruction was based. With an appropriate instructional program, McKenzie went from being an efficient but disinterested caller of words to a child with an avid love of reading for meaning and beauty. With the confidence gained through using such materials, McKenzie continued to read independently on a daily basis. His reading interests rapidly grew
from exclusive reading of picture books to reading chapter books from several genres. Today, he savors the language in his favorite books and at times, he patterns some of his decisions on the heroic characters encountered within. He often rereads books as many as five times, each time discovering new depths of meaning and sharing this with his parents and friends. It is not the intent of these writers to advocate a particular philosophy of literacy instruction. Rather, our intent with this case study is to enhance classroom teachers' awareness of potential problems that can result when discrepancies exist between children's entry schema and the schema which undergirds the school's instructional program. Our hope is that teachers will become aware of the importance of the prior literary experiences that children bring to the classroom and consider this when introducing them to literacy tasks.

References

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