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THE POWER OF RETROSPECTIVE MISCUE ANALYSIS: ONE PRESERVICE TEACHER'S JOURNEY AS SHE RECONSIDERS THE READING PROCESS

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Abstract

Research has shown that teachers are strongly influenced in their pedagogical decisions by their own prior educational experiences. This article describes a case study that used Retrospective Miscue Analysis as a research tool to assist one preservice teacher, Sophie, as she reconstructed her perception of the reading process. Sophie came to the research with a strong belief in a text reproduction model of reading. Listening to audio recordings of self-produced miscues became the basis for discussions that centered on the sociopsycholinguistic transactive nature of the reading process. Over the course of the research the preservice teacher examined her assumptions about reading, became acutely aware of and revalued her reading strategies, and came to the realization that efficient effective reading does not result when readers focus on accurate text reproduction reading.

Teachers' recollections of their own experiences as students in a classroom setting are the greatest single predictor of how teachers will teach (Lortie, 1975). In other words, teachers teach the way they remember being taught. Other predictors of teaching style include personal experiences (ethnic and socioeconomic background, gender, geographic location, religious upbringing etc.), and, to a lesser degree, experience with formal knowledge of pedagogical and curricular areas (Richardson, 1996). If as the research indicates this is true, how do teacher educators help preservice teachers

reconstruct their belief systems about teaching and learning with respect to the sociopsycholinguistic nature of the reading process?

Richardson states that collaboration in research is a particularly important component contributing to a change in attitude or beliefs. She references Bussis, Chittenden, and Amarel (1976) who write that "personal exploration, experimentation, and reflection" (p. 17) must be present for significant teacher change to occur. These statements speak directly to the nature of this research study.

In this article I will document the three month journey of one preservice teacher as she closely examines her personal reading strategies and uses that new knowledge to reconstruct her perception of the reading process. I begin by describing Retrospective Miscue Analysis, the research tool used in this case study, and the procedure of the research sessions. Next I will introduce the preservice teacher and present excerpts from the research sessions. Following each excerpt I will provide an interpretation of the research session. I will conclude with a discussion of the effectiveness of Retrospective Miscue Analysis as a research tool with respect to this case study.

Retrospective Miscue Analysis

Throughout my research I focused on reading as a meaning-making authentic language process. Because I believe literacy and literacy learning are social events, I used a research technique called Retrospective Miscue Analysis (RMA). In RMA, readers listen to audio recordings of their own oral readings

and, with the help of a researcher, discuss to what degree their miscues are syntactically and semantically similar to the printed text and to what extent they affected comprehension. RMA combines the power of personal interaction with constructing knowledge in a social context.

During the course of the research I met with Sophie five times. In our first meeting, I interviewed Sophie using the Burke Interview Modified for Older Readers (Burke, 1996). The interview questions were designed to help Sophie reconstruct memories from her early childhood reading experiences and help her describe what she believed were characteristics of good readers.

Each time Sophie and I met, with the exception of our last session, I audiorecorded Sophie reading a previously unseen text. After each meeting I analyzed Sophie's reading using Procedure 1 of the Reading Miscue Inventory (Goodman, Watson, & Burke, 1987). The Reading Miscue Inventory examines a reader's miscues to determine the degree of graphophonic similarity, syntactic acceptability, and meaning change when compared to the expected response.

In preparation for each session I preselected five to eight miscues to discuss with Sophie. Based on responses from the initial interview, I chose miscues that I thought would most provide insight for Sophie into the transactional sociopsycholinguistic nature of reading. As an example, Sophie viewed reading as accurate text reproduction, so I often chose miscues which were syntactically and semantically acceptable and were not self-corrected. I coded a miscue as syntactically and semantically acceptable if the resulting sentence was syntactically accurate and contained no major semantic changes.

For each RMA session I had two tape recorders. One contained the recording of the reading we would discuss and the other was used to audiorecord the RMA session. I gave Sophie a typescript copy of the previous reading that was prepared to represent the original reading as much as possible duplicating length of lines, special fonts, punctuation, and page breaks.

Before we listened to and discussed the preselected miscues, I directed Sophie to the appropriate portion of the typescript and often asked her to read the sentence which contained the miscue. This gave her the opportunity to reflect on what may have occurred during the first reading. As the selected miscues were replayed, Sophie followed along on the typescript copy and I used the following questions to guide our discussion:

1. Does the miscue make sense?
2. a. Was the miscue corrected?

   b. Should it have been?
3. Why do you think you made the miscue?
4. Did the miscue affect your understanding of the text?
5. What does this tell you about what readers do as they construct meaning from a text?

I often expanded on these questions to strengthen the retrospective nature of the process by asking “Why do you think so?” or “How do you know?”. I did not ask all questions of every miscue, but rather used them as a road map for the discussion to help Sophie focus on her use of reading strategies and language cue systems. I exercised caution to ensure the questions did not

become formulaic or predictable, taking instead my cues from Sophie's responses. Flexibility in interactions is part of the procedure for RMA (Goodman & Marek, 1996).

Traditionally RMA has been used as a tool with readers experiencing difficulty to help them reexamine the reading process and revalue their personal reading strategies. Along with several colleagues, I had successfully used RMA with proficient adult ESL readers as they examined their L2 reading processes (Wurr, Theurer, & Kim, 1999). I knew potential existed for the use of RMA with skilled readers and I also knew that careful study in a discipline enlightens the learner. I was curious to discover whether RMA would help a preservice teacher revise his or her perception of the reading process. This interest led to my research with Sophie.

Sophie: A Proficient Reader

Sophie was enrolled in the College of Education at a major research university in the Southwest United States. She lived in a nearby suburb with her husband and two young children. Sophie decided to returned to school to complete her education degree when her daughter entered first grade. She agreed to participate in my research to fulfill a requirement for one of her education courses.

Sophie recalls growing up in a literate environment. She said her parents were "reading all the time, always reading the newspaper, magazines, books" and she remembers her father reading bedtime stories to her. Her

earliest memories of first grade include “using phonics ... [and] sounding words out.”

Sophie describes herself as a “good reader” who loves to read. As a full time student she said, “Every single day I’m reading something mainly to do with school.” She went on to say that she has not “read a good book in a long time because of school, but I used to read novels.” Sophie is following her father’s model and reads to her children every night before bedtime. “Arthur books are their favorite and Dr. Seuss books. Any book they get from the library that they bring home I read to them.”

Sophie describes her father as a “really good reader ... he was the one who always read to me. He’s just so good at it. It’s like he seems to know every single word. He knows all the meanings. He knows how to pronounce everything.”

When I asked Sophie before our RMA sessions began what she would do to help someone who was having difficulty with reading she said she would have them read “very slowly over each word ... [and] just practice, practice, practice.” This comment reflected Sophie’s early school experiences of reading as a text reproduction process. She believed that good readers accurately read every word as it is printed in the text with no room for deviation.

RMA Session 1 “You Have to Read Every Word the Correct Way”

In preparation for our first RMA session I audiorecorded Sophie reading the short story *Godfrey Cambridge and Fame* (Angelou, 1997). Two weeks

later Sophie and I listened to and discussed sample miscues. The miscues I present in this article are samples from our discussions which are representative of the entire session.

When Sophie read the following sentence in her initial reading she substituted *around* for *away*.

> Those who dared to watch him timorously sat or stood *around* away in rapt attention.

Figure 1. Substitution Miscue

We listened to the recording and I asked Sophie if the sentence made sense the way she read it. She replied, "Yes," and then questioned the author's use of the phrase *stood away*. "What's stood away? That doesn't make sense to me ... I guess I just saw the next letter and put in what I thought would make sense to me."

I asked Sophie how her comment related to what readers do when they read and she replied, "I guess you bring with you what you know." She agreed that her miscue did not change the meaning of the sentence but she also believed that if she were a teacher and her student produced the same miscue she would immediately correct them. "I think it's because that's what I was trained to do. Teachers did that to me in school ... I just think you have to read every word the correct way."

Sophie reminisced about her schooling when she went on to say, “We always had to read everything correctly or our teacher would correct us out loud.” When I asked how that made her feel she responded, “Probably a little bit stupid. A little bit embarrassed that I didn’t get it right. So I think that made me concentrate even more on reading it just the way it is.” Sophie admitted that in the second grade classroom that she was observing she also corrects children immediately when they produce a miscue. “When somebody’s reading a book and they skip a word that’s really where it doesn’t matter if someone skipped it, I will actually correct her. So I’m doing the same thing.”

Another miscue we discussed was Sophie’s substitution of *said* for *asked* in the following sentence.

said As we neared his parked taxi, he asked, “Somebody said you have been talking to some big dude.

Figure 2. Substitution Miscue

“I don’t know why I did that one,” Sophie said when she listened to the miscue. She thought about it for a few seconds and continued, “I wonder if it’s because when I’m reading along I’m always looking ahead at the next word. So if I think I can finish it on my own I just assume what the word should say.” She agreed that other readers use the same strategy but as a teacher in a classroom she would expect accurate word reproduction. “I think it’s important

that the kids say each word correctly because they're learning how to sound out words. They're trying to memorize the most frequently used words in stories."

When I asked Sophie why she thought it was so important to read the text exactly the way it is written she replied, "Maybe to get the meaning from the author's point of view, to really understand what she was trying to say. Maybe, I think, if I even change one word it might change the whole meaning of the sentence."

Throughout our discussion Sophie made comments that supported her text reproduction model of reading. The following statement is reflective of that belief. "I guess I noticed that I didn't read it correctly ... I wanted to read it exactly the way it was written."

Sophie came to this research with definite ideas about how young readers learn to read. Her prior educational experiences formed the basis for her practical theory (Zeichner & Liston, 1996). Prior to this research she had never articulated or reflected to this extent on her beliefs. Anzul (1991) addresses this issue when she writes, "People who have never before articulated their beliefs and customs now are asked to do so, and what may never before have been examined has now become verbally objectified" (p. 197). On 13 different occasions during this discussion Sophie spoke of children "saying each word correctly." Her practical theory indicated that she believed children first need to develop a sight vocabulary and word recognition skills and then develop the skills to extract meaning from a text. However, she was never able to articulate how or when the change from recognizing words to

understanding text would occur. She could not envision “reading as a process of thought-getting [that] begins with meaning and with *words in context*” (Smith, 1955, p. 14). She knew that at some point reading needed to involve meaning, but she had never thought about when that might occur. It just seemed to be something that miraculously happened somewhere sometime in the primary grades.

RMA Session 2 “I thought I Read Everything Word for Word”

In preparation for this discussion Sophie read *Floating* (Brennan, 1991), a short story in which the events are not presented in chronological order but shift repeatedly between real and imagined events in the past and present. In the following sentence Sophie omitted the word *had*, read to the end of the sentence, and then reread the sentence correcting her omission.

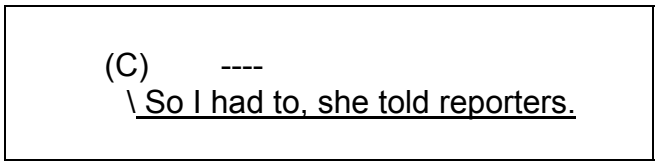

Figure 3. Omission Miscue and Correction

I asked Sophie why she read to the end of the sentence before she went back and corrected the miscue, "When I said, *So I to she told reporters*, I realized that did not make sense. Something was missing. So I went back, looked over it, and found the word I missed and then I repeated it." I asked Sophie why she thought she might have made the miscue. In disbelief she answered, "I don't know why I would have done that ... Maybe I just predicted what was gonna happen."

This led to a conversation about omitting words while reading. I showed Sophie four omission miscues she produced in this reading. "Wow! ... I always thought I read everything word for word," she exclaimed. As we brainstormed possible reasons as to why Sophie was omitting words she said that she found this story interesting and was focusing on "what was gonna happen next in the story" as opposed to focusing on the printed text. I asked if she believed this had implications for teachers in the classroom. "Oh yes, I think it would ... I think kids need to choose their reading material ... I think they need to be interested in it to get something out of it."

We also discussed Sophie's substitution of *holding* for *hold* in the following sentence.

holding I let myself slowly down beside her, hold her in my arms, sing to her in almost a whisper.

Figure 4. Substitution Miscue

When we discussed this miscue Sophie believed her version of the text "sounds better." She went on to say, "And I should have said ... *singing to her in almost a whisper* ... If I was going to write it I would have said *holding*. In fact, I even remember coming to *sing* and even though I didn't say *singing* I remember thinking I don't like the way that sounds."

This was the first time Sophie began to look at her miscues from a different perspective. She valued her miscue and questioned the author's choice of words. Sophie was beginning to recognize that reading was more than just focusing on words, "I'm trying to analyze the sentence and get meaning from it and reading more than just words."

Sophie then told me about a conscious decision she had made since our last meeting. She was volunteering in her second grade observation classroom and was listening to a group of students reading aloud. "Some of the kids would replace a word and it still made sense so I just left it," she said. When I asked if the children corrected the miscue she exclaimed, "No! I was surprised. I thought for sure a kid would go 'That's not right. That's not the right word.' And no one said anything." Sophie was trying to prove to herself that what she

was learning in our sessions together would have no practical application in a classroom. She was not ready to abandon what had felt comfortable to her all her life, the idea that children should "try to read word for word."

RMA Session 3 "You Don't Have to Read Word for Word"

"One of the things I've learned is that you don't have to read word for word ... I'm beginning to change my views on reading ... It's hard. It's really hard." That quote from Sophie began our third meeting. Sophie had read *Thief* (Grenir, 1996) in preparation for this RMA session.

said finally
"Polite," I finally said. "Polite. Don't you believe me'?

Figure 6. Reversal Miscue

We listened to the tape of the miscue, but Sophie was more concerned with talking about the written text. "Does that make sense?" she asked. "What does that mean? *Polite, I said finally. Polite. Don't you believe me?*" We rewound the tape and as we listened to the miscue a second time Sophie said, "Oh, I switched words!" She had been so concerned with making meaning of the reading she had not heard her miscue. When I asked why she thought that might have happened she answered, "When I was reading this I kept looking at the word *polite*. I must have glanced at the next three words but I went back to look at *polite* thinking I must have misread it."

We talked about her strategy of scanning ahead as she was thinking about what she had just read, while simultaneously trying to construct meaning. The audiorecording showed no hesitation in her voice as she scanned the words *I finally said*. I asked Sophie to relate this knowledge to strategies readers use as they read and she responded, “They’re constantly trying to get meaning from it. So they’re doing 10 things at once very quickly.”

In the following substitution of *was* for *were*, Sophie once again questioned the author’s choice of words.

was He shook his head as if he were disappointed in me, then turned away.

Figure 7. Substitution Miscue

“All right, shouldn’t it be *was*? Why is it *were*? *Were* is proper English?” she asked. “Yes,” I replied but Sophie was not convinced. “I still think it should be *was*,” she said indignantly.

In the sentence containing Sophie’s miscue, *were* is used as a subjunctive. The conjunction *as if* introduces the conditional clause in which *were* is used to indicate an action that is doubtful. There was a good grammatical reason for using *were* but, in Sophie’s dialect, the subjunctive mood is not as consistently used. Once again Sophie was rewriting the text as she was reading in an effort to construct meaning for herself.

As we closed the session Sophie said, “I seem to have the same strategies every time when I’m reading. I bring my own background of my reading knowledge, how I speak and how I would write things. That’s why I add words and take out words and change things around.”

She admitted she was surprised to discover her reading strategies. Sophie no longer felt that it was her job as a reader to ferret out the author’s one intended meaning. This was a tremendous change from our first discussion when Sophie believed that if she changed even one word she thought “it might change the whole meaning of the sentence.”

RMA Session 4 “I Wasn’t Reading Word for Word”

For our last session together Sophie read an informational article, *Reading: The Psycholinguistic Guessing Game* (Goodman, 1991), which explains strategies used by readers as they transact with text. This article was Sophie’s only other exposure to miscue analysis theory during our sessions together. We discussed the following insertion and substitution miscues.

Did you use your usual cursive handwriting? Did you print?

I printed. *actually*
∧ One thing you didn’t do was to accurately reproduce

the print font of the original.

Figure 8. Insertion and Substitution Miscue

As we listened to the tape Sophie noticed that she paused briefly in her reading. "I said, '*Did you print?*' and then I stopped and what did I say?" When I explained to her that she was answering the question posed in the text she exclaimed, "Oh! I couldn't figure out what I was doing." Sophie readily admitted that at this point in the reading she was fully engaged in the article. "I wasn't reading word for word. I was reading for meaning."

When we discussed the substitution miscue, Sophie referred to the issue of text placement. In the original text read by Sophie *accurately* was hyphenated with *ac-* printed at the end of the line and *curately* beginning the following line. "It's probably not a very good word to split up ... You should have *accurate* together and maybe put the *-ly* somewhere else ... I guess I was sounding it out ... making a prediction of what the word was gonna be."

As we continued to listen to the tape Sophie laughed as she exclaimed, "Oh, I'm just making miscues all over the place!" She readily admitted she had no idea she was producing miscues because she would have "corrected it. Obviously I didn't know ... Somehow it made sense to me. I must have been getting meaning from it."

Sophie approached this final discussion with confidence in her voice and conviction in her new-found knowledge. She described her new beliefs about reading this way, "I think they [readers] make predictions and when the predictions match what's in the text, or close enough, they keep on going. But when they don't then they have to go back and correct." As a proficient reader Sophie had the ability to handle all the semantic, syntactic, and graphophonic

cue systems and continue reading even when she miscued, as happened when she was dealing with text placement in her final reading.

Sophie was no longer concerned with producing a reading that reflected a text reproduction model of reading. She now believed it was permissible to "skip over" sections of text when she realized that she "didn't need to know this information." She also agreed that, depending upon the purpose for reading, it would be acceptable for children to use the same strategy. As Sophie reflected on the change in her belief system she said, "In the beginning I strongly thought reading was reading word for word. I didn't think reading was just for meaning ... you have to read for meaning or what's the point"?

Reconceptualizing Change

During the course of the research Sophie had ample opportunity to question, investigate, test, and apply her new knowledge. In our first meeting Sophie said, "I want to read it [the text] exactly the way it was written." Sophie had been taught as a child that good readers produce a mirror reproduction of the text and any deviation from the printed text needs to be corrected. The influence of formal schooling combined with past experiences of overly simplified education was especially strong (Knowles & Cole, 1996). That influence was so overwhelming it prevented Sophie from considering any other approaches to learning to read. An important part of this research became the "unlearning and rejecting [of] dispedagogic experiences" (Goodman, 1996, p. 356).

Sophie came to the research valuing her ability as a reader, “I’m a good reader,” she declared. Participation in the RMA sessions helped her revalue herself as reader. She gained renewed confidence in her reading ability which helped her take more risks and become an even more effective reader. She also began to value the constructivist transactive nature of the reading process (Goodman, 1984). She no longer believed it was necessary for children to read slowly over every word. She said that children who used that strategy would be “missing out on the meaning of the story.”

By the end of our time together Sophie realized she herself “wasn’t reading word for word.” She came to understand that, as readers transact with text, they bring the sum total of their background, belief system, and personal knowledge of language as they construct meaning (Goodman, 1984; Rosenblatt, 1978).

When summing up the changes in her belief system Sophie said, “I’m just more aware of what goes on, everything that happens in a split second, all these decisions a person makes when they’re reading and predicting. I didn’t know all that was going on and I had no idea I was making so many miscues ... I always thought that to be a good reader you had to read word for word ... I realize it doesn’t matter if you make miscues. I’m still getting meaning out of it. In fact, I get more meaning out of a reading it seems if I make more miscues because that means I’m not reading word for word.”

Weaver (1994) cites Krashen (1982; 1984; 1985a; 1985b) when she describes “the constructivist nature of learning” (p. 65). She believes that

students learning *about* language in a stilted formal school setting never fully acquire the same expertise as those who learn the language in authentic constructivist settings. Weaver continues by saying that *acquiring* language is a subconscious process in which an individual is in charge of his or her own learning, continually constructing more sophisticated rules of language. While Weaver was discussing language learning in general, I believe parallels can be drawn to my research.

The collaborative setting in which I worked with Sophie allowed her to *acquire* an understanding of the reading process. Rather than provide a list of theories or rules about the reading process, I helped Sophie build on the knowledge and experiences she brought to the research with each subsequent RMA session building on the learnings of past sessions, thus remaining true to the collaborative nature of RMA. Sophie began with her personal background knowledge and during the research she set the pace for her own learning. Through the process of revaluing, Sophie developed a greater understanding of reading and her own personal reading strategies. Our sessions together had a profound effect on Sophie. “In the beginning this was just an assignment. I didn’t think I’d get anything out of it. But towards the end I realized I can take this with me when I’m a teacher, because I just totally changed my mind how I perceived reading and how you should teach reading.”

Notes

1. The following are miscue analysis markings used in the text excerpts: substitutions are written above the text, omissions are marked with a dash above the text, insertions are indicated with a caret, (C) means the miscue was corrected, an underlined portion of the text marks a regression.

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