

Opening a Conversation About the Use of Miscue Analysis and Student as learner

Steve Trowbridge, Tina Herrington, John Stansell, and Debbie Smith

As reading specialists in teacher education programs from several universities, we have had an ongoing discussion about miscue analysis and the impact it has on pre-service teachers. While searching Ask ERIC on-line for information on the use of miscue analysis in undergraduate teacher education programs, we discovered a sharp decline in the number of articles dealing with this subject. In the decade from 1980-1990, there were 219 citations that had *miscue* as a key word in the title. From 1990-2000, there were only 74 such citations and, of those, only 15 were in journals.

This discovery led us to a discussion on why this might be so. One suggestion was that those who had initially been deeply involved in miscue research had either found what they were looking for or had given up the search. Another thought was that the newness of this avenue of investigation had worn off and researchers had just moved on to new areas of interest. A third suggestion, and this is the one that has moved us to the present conversation, was that those who had been deeply impacted by their encounters with miscue research now believed that it was so entrenched in teacher education courses that there was no need to continue the conversation at the national level.

As professors, in both graduate and undergraduate teacher education programs, we all had epiphanies while working with miscue analysis in our own education programs. We also were not convinced that miscue analysis was being taught in all

undergraduate teacher education programs, or even most. We conducted an unscientific survey of colleagues at other universities and a search of the Internet reading course descriptions, and found that miscue analysis did not seem to be a prominent part of many undergraduate programs. In our own graduate courses we had also encountered teachers returning for master degrees who had never heard of miscue analysis, or if they had it was mentioned as some sort of complicated version of running records.

Spurred on by the dearth of public conversation in journals and the anecdotal data suggesting that miscue analysis has lost prominence in undergraduate programs, we would like to reopen the conversation on using miscue analysis in undergraduate teacher education programs as one way of helping students understand the process of reading.

History

Miscue analysis research begins with the work of Kenneth Goodman in the mid-1960s (Goodman, 1964, 1965). Across almost four decades, studies by Goodman, his colleagues, and others yielded an extensive research base (Allen & Watson, 1976; Brown, Goodman, & Marek, 1994). The use of miscue analysis in teacher education programs also has a lengthy history, dating from the late 1960s as miscue researchers began working to help teachers understand miscue analysis and use the insights it offered. Miscue research had involved use of the Goodman Taxonomy of Reading Miscues (1973, 1976), and the need for a form of miscue analysis that would be more usable by teachers became quickly apparent. Recognition of this need led to the development of the *Reading Miscue Inventory* (RMI)(Goodman & Burke, 1972). The RMI was designed for teachers' use in classroom assessment, and was used extensively for various purposes in undergraduate teacher education classes. As more and more

undergraduate and graduate students were introduced to the RMI, some found that although its use yielded important information and insights, it was also time consuming. Various short forms of the RMI were developed in the following years to provide miscue analysis frameworks that were faster and easier to use (Bean, 1979; Cunningham, 1984; Hood, 1978; Siegel, 1979; Tortelli & 1976). Goodman, Watson, and Burke's *Reading Miscue Inventory: Alternative Procedures* was also published in 1987 to provide three alternative forms of miscue analysis in a single volume that could be chosen depending on the needs and experience of the user. Though miscue analysis has had its critics, who have challenged both its theoretical base (Gough, 1993; Perfetti, 1985; Rieben & Perfetti, 1991; Nicholson, 1991; Stanovich, 1986; Turner & Hoover, 1993) and its psychometric adequacy (Allington, 1984; Leu, 1982)), it became well established as a research instrument and an assessment tool. As the work of miscue researchers began to influence the theoretical understandings of reading professors in the '60s, '70s, and '80s, many of those who taught undergraduates used miscue analysis as a means to introduce their students to reading and reading assessment.

Instructors using miscue analysis in undergraduate reading classes have chosen from the available forms the ones they felt best suited to the knowledge and experience of their students. They have typically required students to tape record the uninterrupted reading and immediate retelling of a complete, authentic selection, and then helped students to learn to use RMI procedures for marking, coding, and analyzing the reader's miscues (substitutions, omissions, insertions, etc). While prerecorded tapes have been used in some cases, the value of students' first hand observation of readers while taping has made this practice less common.

Miscue analysis has been used in a variety of undergraduate reading courses to serve a number of purposes. In reading assessment courses it has been presented as an assessment instrument that offers insights not available from standardized tests or traditional informal reading inventories. In reading methods and language arts courses, students have used the results of miscue analysis to develop strategy lessons (Goodman, Watson, & Burke, 1996) for readers, and to consider curricular and instructional emphases that might best help readers develop effective strategies. In content reading courses, miscue analysis has been used to help students assess the demands of content area textbooks and other instructional materials. But, as indicated by the examples which follow, the primary purpose has been to help students better understand the reading process. Our experiences as instructors who use miscue analysis with our undergraduate students has led us to believe that it continues to serve this purpose very well.

Miscue Analysis at Northeastern Oklahoma University

In the teacher education program at Northeastern Oklahoma University, pre-service teachers are required to take three reading courses: Early Reading, Literacy in the Content Area, and Reading and Writing Assessment. In these courses, students learn how to conduct an RMI as a way to assess readers. All three courses focus on the reading process, yet many students who are in their third reading class, Reading and Writing Assessment, and are still unable to discuss the process.

As a result, students are now asked to go beyond using the RMI as a way to assess students' reading in practicums and internships, but students are administering it to themselves as a way to gain a better understanding of the reading process (Goodman,

Watson, & Burke 1987). During this assignment students write reflections and work in small groups. The group discussions are taped and then transcribed.

As the students worked on their RMI, their knowledge about the reading process began to grow. One area of change is in the terminology they use in discussing the reading process. In the following discussion the students switch from the word “mistake” to “miscue”.

S1: Um, one of the other mistakes that I had made was leaving the word out.

S2: One of mine I noticed that I would just repeat more than anything else. . . That’s mostly where my mistakes came from, besides pausing a lot.

S1: Why don’t you read us one of your mistakes - not mistakes, one of your miscues?

The word *mistake* has a negative connotation, but miscues are not negative phenomena since they can indicate either strength or weakness on the reader's part. Acknowledging that what readers make are miscues rather than mistakes is an important step toward being able to understand and talk about what readers are doing in relation to the reading process when an error occurs.

One of the biggest shocks that students experience while conducting an RMI on themselves is the fact that they made miscues and that, even with their miscues, they still constructed meaning. The following dialogue is an example of students recognizing that they do make miscues and discovering that meaning can still exist.

S1: But that's what we talked about, you don't realize that you're making miscues when you read.

S4: I didn't really realize how I mess up when I read.

S1: And even though, you make a lot of miscues, did that change what you got from the story? Did you still get the meaning of it?

S4: Yes, I guess that's what was so interesting.

S2: Most of those miscues I never realized I made and I never looked at them.

The same acknowledgment of miscues in students' reading was evident in their final reflections. One student wrote, "When I was reading Maniac McGee, I didn't think I made that many mistakes. But when I listened to my tape I found that I did make miscues and I was surprised." Another student wrote, "After finishing the miscue on myself and working in my group, I realized that nobody reads perfectly. Miscues are what all readers do when they read". In one reflection, a student discovered that she was, in fact, a good reader. "After spending time studying the reading process and conducting a miscue on myself, I have found something that I never really saw before. I am a good reader. By this I don't mean I never made miscues, but that I gain meaning from text in an efficient way." For many students, the discovery that miscues are a natural part of the reading process made it easier for them to see themselves as capable readers.

As students begin to acknowledge that they made miscues, they begin to discuss what they are doing when they read. In the following discussion students continue the conversation about miscues, but this time they learn about the type of miscues and self-corrections they make from their own recorded readings.

S1: But if I read something and then added a word in, it would still made sense, even though it changed a little bit of the meaning of the context. If it still made sense I didn't go back and self-correct or anything on those. But my main ones [miscues] I think were caused because I wanted to get to the end of the story quicker. I want to get to the end and find out what happens. But on the sample and selective reading process that is a little hazy to me, you know what I mean? Um, so I guess I used pragmatic and syntactic cueing systems mostly because it makes sense to me so therefore I leave it and go on.

S3: Well, I made my miscues on substitute words like tone for voice, most of the time they would mean the same thing.

S1: Do you think that's something you just predicted that's what it was going to say, that's what your mind was telling you it was going to say?

In the proceeding discussion the students were no longer concerned about the fact that they had a miscue, but about why they made the miscue. Even though students may be a little "hazy" about the parts of the reading process, it is clear from their discussion that they are gaining an understanding of it.

While discussing their own reading process one group quietly slipped into a discussion about what young readers do when they read.

S3: The main thing a lot of little kids especially use is the shape of words to predict what the word is. You know what I mean? The little girl that I used for my reading miscue inventory said "black" instead of "block." She

said block before, but when she came to it again she said black. But I think it was the shape of it.

S1: I think they [little kids] definitely use cues. I have a boy that I'm tutoring and he'll look at the picture and try to figure out what should go next.

A teacher who can talk about a student's reading process and recognize the strategies the reader may be using, will be able to help her/his students become lifelong readers. Our students are learning to become that teacher in these reflections.

In a final reflection a student wrote, "Doing this (Reading Miscue Inventory) really showed me how I read and how I can began to understand how others read". Helping students reach this kind of understanding is the goal of this assignment.

Miscue Analysis at the University of Houston - Victoria (UH-V)

First Encounter - Theory and Assessment Course

When students enroll in their first reading course at UH-V, they have not really thought about reading as a process at all. Most of these undergraduates come to their initial reading course believing that reading is a product, not a process.

Their most common definitions are, "Reading is getting meaning from what is on the page." or "Reading is what happens after a series of skills or strategies are employed to 'break the code'". Since students have a narrow definition of reading, the programmatic question is, "How do we help our pre-service teachers come to understand that reading is everything that takes place leading up to, and including, comprehension?" At UH-V, miscue analysis seems to help.

In the Theory and Assessment class, students are required to prepare a case study on one student. This is done with a partner to allow for discussion. The case study involves using the Ekwall/Shanker Reading Inventory (Shanker & Ekwall, 2000) to find approximate reading levels, and a Reading Miscue Inventory, alternative III (Goodman, Watson & Burke, 1987). They must discuss their student's strategies, making specific references to results from both instruments to support their thinking.

This exercise seems to be a significant one for most students. They come away with changed expectations for their students and with an enhanced appreciation for reading as a process. The best way to illustrate this may be talking through one pair's case study.

Brian

Two undergraduates in this course chose a student we will call Brian. The third grader chose this name for himself. Brian was selected for the case study because there seemed to be some confusion about him and his abilities at school. He was in the lowest reading group (1st and 2nd grade materials) based on his performance on an informal reading inventory given by his school for placement. He also poked, pinched, and pulled other children's hair. He was a problem in class.

One of the pair of undergraduate students had been observing in Brian's class for some time, and was often asked to take Brian for one-on-one instruction. She thought that Brian seemed to function at a higher level than was suggested by his behavior in class. For this reason, she selected Brian for the case study.

On the Graded Word List (GWL), Brian missed no words until the eighth word of the fourth grade. After that, he made little in the way of attempts to read any words at all. This placed him at the frustration level of fourth grade on the GWL.

On the reading passages, Brian reached the frustration level on the third grade oral passage read, but did not reach the silent reading frustration level until the fifth grade passage. He reached the frustration level in listening at sixth grade. The pre-service teachers selected a third grade story for Brian to read as part of the Reading Miscue Inventory.

Of the approximately 650 words in the story, Brian had 173 miscues, the majority of which were insertions, substitutions and repetitions. At the sentence level, Brian had story changing miscues (either partially changing the story or significantly changing the story) in 45% of the sentences. His fluency was poor and he had significant pauses in several places. Yet when Brian retold the story he scored 86 out of 100 points on the rubric prepared prior to the assessment. He was able to articulate the plot and theme statements as well as recall most details and characters. Also, when Brian made miscues, they were grapho-phonically similar 94% of the time (76% high similarity; 18% some similarity). 30 of his miscues were self-corrected.

The important part of the RMI, for the students, was their analysis of the findings. Statements such as “His reading was hindered by the overuse of grapho/phonetic cues. This strategy is not helping him because he does not appear to confirm his predictions.” shows a firm understanding of reading as a process. Another statement illustrating the pre-service teachers’ deepening understanding is, “Brian gets the ‘big Picture’ even though his oral reproduction does not show evidence of the fact.”

It is these deeper understandings of the reading process that makes miscue analysis so necessary for pre-service teacher programs. The change from “reading is breaking the code” to understandings of the multi-strategic nature of reading, and the realization of a need to look at more than one aspect of a student's reading before making decisions are vital for beginning teachers.

End of Program - Language Arts

Pre-service students enrolled in their final reading course at UH-V find themselves working with students fifty percent of the semester as part of a professional development school. This field-based opportunity allows the pre-service teachers to be actively engaged in a variety of activities. The pre-service students are observed working with individuals, small groups, and whole classes of students. The pre-service teachers are required to use the various modes of language arts instruction to construct two forty five minute lessons that are observed and critiqued by the University supervisor. In addition, students are trained in the administration of the various state mandated reading inventories and are often allowed the opportunity to administer the assessments as part of their experiences in the field.

All school districts in the state of Texas are required to administer an early reading diagnostic instrument for students in grades kindergarten, grade 1 and grade 2 according to Texas Education Code 28.006. The requirement of an early reading assessment is a result of the passage of House Bill 107 by the 75th Texas Legislature in May 1997. The state does not mandate a specific instrument for early reading assessment; however, the Commissioner of Education provides a list of recommended instruments. The results of this assessment do not become a part of the accountability ratings for

individual districts, though the results are reported to the parents, superintendents, school boards and the Commissioner. The Texas Primary Reading Inventory (TPRI) has currently been adopted by over 90% of the school districts in the state. The elementary schools that participate in the UH-V professional development school have all adopted the TPRI and have received intensive training in its administration and interpretation. Therefore, all students who have completed the UH-V program have experienced the RMI, Ekwall/Shanker, TPRI and various other informal assessment devices.

The TPRI measures accuracy and fluency by counting errors on the oral reading of a passage and the number of words read per minute. The total number of errors is equated directly to the students reading level as independent, instructional, or frustrational. Pre-service teachers at UH-V who have been trained in RMI have made many meaningful observations when administering the TPRI about the types of errors made by the student. The following statement taken from a student's journal is reflective of how our pre-service teachers see the TPRI in light of their miscue training.

The TPRI seems to be a fairly fast reading assessment. However, it focuses only on the number of errors that are made. There is no evaluation of what type or errors were made. In miscue analysis each error or miscue is evaluated. Each miscue does not carry the same weight, as it does in the TPRI. I think miscue analysis, while more time consuming, is a better overall assessment tool.

Students who have completed the undergraduate program at the University of Houston - Victoria have experienced both the Reading Miscue Inventory and the Texas Primary Reading Inventory. It is our belief that our graduates will observe children's

reading with a deeper understanding of the reading process and that this understanding will positively impact their daily decisions as classroom teachers.

Conclusion

In our experience, miscue analysis has been a very valuable means of helping students build their understanding of the reading process, of curriculum and instruction that reflects this process, and of themselves as readers. It has also been an important tool for prospective teachers for assessment, and for thinking critically about other assessment instruments and procedures that are available and whether they offer the kind of information that reflects the complexity of the reading process. Since our informal investigation has suggested that it is not as prominent as it may once have been in undergraduate reading courses, we have attempted to reopen the conversation about miscue analysis and its role in literacy teacher education. Now, we invite readers to join us and share their experiences and insights. We believe this renewed conversation will offer much to our profession and to those it serves.

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