Changing Attitudes and Engagement: Collaborative Retrospective Miscue Analysis with “Intervention” Middle Schoolers

Carol Gilles, Anna Osborn, and Danielle Johnson

What do you think your brain does when you read?

*Sucks in all the words (to) remember the words* —Ella

*Creates a movie out of the story that I read* —Bahar

These were some of the responses that sixth-, seventh-, and eighth-grade “Reading Intervention” students offered when asked what they thought their brains did as they read (names are pseudonyms). We noticed a disparity in responses between those concerned with meaning making (like Bahar) and those concerned only with decoding and word identification (like Ella). In addition, after initial Burke Reading Interviews (Burke, 1988), it seemed clear that students could be separated into at least two categories: those who saw reading as meaning making and those who did not. We were also concerned that our students lacked interest in books. As Anna complained, “It just seems as though I am herding cats when it is independent reading time. I spend more time redirecting students than I spend having productive conferences with them.” The students who did not see reading as meaning making seemed especially disengaged from books. Though this disengagement sometimes appeared as outward resistance to reading, it more often manifested in book hopping or compliance during silent reading without actual meaningful interaction with literature.

To help students learn more about what they actually did as readers and to increase their engagement, we launched a month-long study in which the students learn about miscue analysis and collaborative retrospective miscue analysis (CRMA; Moore & Gilles, 2006) in order to listen to one another read a short passage, mark the miscues (deviations from print), and eventually talk with their partners about what their brains were doing as they read.

We were surprised how quickly these students learned miscue terminology and concepts, despite being labeled “struggling.” In this article, we delineate some of the lessons learned about teaching students CRMA in the context of a reading intervention course and discuss how their engagement changed.

What Are Miscue Analysis and Collaborative Retrospective Miscue Analysis?

Miscue analysis is a well-researched (Goodman, Watson, & Burke, 2005) assessment tool based on a theory that reading is meaning making, situated in the social/cultural context of the reader (Goodman, 2005). Although somewhat similar to Running Records (Clay, 1993) or DRAII (Pearson, 2011), it is often more useful than other assessment tools because it goes into more depth and emphasizes what a student can do. Instead of merely an error count, miscue analysis offers teachers more information about how students use language cueing systems (meaning, syntax, graphophonic, etc.). Thus, the assessment gives a clearer picture of what kinds of instruction students need in order to improve.

We chose CRMA because it encourages students to develop a working theory of the reading process and make sense of their own reading, so they can assume responsibility for self-monitoring and for selecting strategies to improve their reading. CRMA involves students listening to, thinking about, and talking about the miscues they have made during a previous oral reading with a teacher/partner...
The Use of Literature in Whole Language

ner. It brings their reading to a conscious level (Goodman & Marek, 1996; Moore & Gilles, 2005; Moore & Seeger, 2010; Worsnop, 1980) and illuminates readers’ integration of language cueing systems during the reading process. We coupled CRMA with reading workshop, where students were provided time and support for daily reading from self-selected materials from classroom libraries brimming with engaging young adult novels. When using CRMA and reading workshop, Gilles and Peters (2011) found students began to change their attitudes toward reading, and their scores on traditional reading assessments improved.

How Did We Gather and Analyze Information?

This qualitative classroom research study took place in two midwestern middle schools during one semester. Our research team was comprised of Carol, a professor of literacy, and two Reading Intervention middle school teachers, Anna and Danielle. We gathered data on four classes (two each), but more students were involved in learning about CRMA. Our study included a diverse group of students, including African American (10), Latino (5), and White students (3), and some were English language learners from Bulgaria, Burundi, Syria, or Cambodia (4). The guiding question was, “What happens when two teachers initiate, use, modify, and critique CRMA with selected Reading Intervention classes?” Data collection included student responses on the Burke Reading Interview (pre- and post,) audio recordings of the initial miscue analysis (unassisted reading aloud from unfamiliar materials), subsequent CRMAs, copies of students’ written work, copies of evaluative tests, Renaissance STAR (Renaissance Learning, 2010) and Developmental Reading Assessment II (Pearson, 2011), student and teacher interviews, and researchers’ field notes. Carol acted as a resource to both teachers as they introduced CRMA to their students, took field notes, and conducted interviews. The teachers reflected each day (on Google Drive or on paper) about what they noticed, how students were reacting to CRMA, and any behavioral shifts. Each teacher analyzed her data through repeated re-readings (Glasser & Strauss, 1967) and noted relevant emerging patterns. Then we all met together, triangulated those patterns through various data sources, and discussed them thoroughly until themes emerged. In presenting the following themes, we weave in the classroom experiences related to our work with CRMA.

What Did We Learn?

Teaching the CRMA process to these students had both challenging moments and steady successes. Three large themes stand out: how quickly students learned miscue analysis; how CRMA promoted more authentic, “real” reading; and how students became more metacognitive about their reading and more comfortable with assessments. All three of these themes led to students’ changing attitudes and engagement.

Our students quickly learned about miscue analysis.

Although we had concerns that students labeled “intervention” might struggle with the complexity of CRMA, we also knew that students rise to expectations. Ours were high. We began with Carol co-teaching a lesson about the systems of language with visuals and hands-on activities. This lesson included such concepts as What is a miscue?, Everyone miscues, and Making meaning is most important. It also demonstrated how we use everything on the page (the squiggles, the white spaces, etc.—the graphophonics), as well as our intuitive grammar (syntax), background (prior knowledge), and culture to make making. As demonstrated in Figure 1, all the systems of language are used together to make meaning, the ultimate goal of any literacy event.

![Diagram of systems of language](Figure 1. Systems of language. From Whole Language Strategies for Secondary Students, edited by Carol Gilles et al., Richard C. Owen, 1988. Used by permission.)
Students did not believe that everyone miscued. Bahar, an ELL, often stated, “No, I don’t miscue,” while Eddie, in his Burke Interview, revealed that good readers NEVER miscue. Students set off to investigate if anyone miscued in “real life.” They were shocked to find parents, older siblings, and even, “Mr. Smith, my industrial tech teacher,” made miscues. Anna found a radio broadcast of Steve Harvey, explaining his Miss America miscue. This was the hook many of Anna’s students needed. She preceded sharing this audio with a short clip of what she told students was “the world’s most famous miscue” and continued stressing that miscues are a natural part of reading aloud. Students appreciated that someone they knew from television miscued with millions of others watching. Recognizing that everyone miscues was a huge lesson for all students. Many of them thought they were the only ones who miscued; therefore, they should always try to read without errors. They began to unpack years of baggage about being the reader who always miscued in front of peers. They shared their personal oral reading experiences with one another and their teachers. By the final interview, ALL students agreed that miscues were a natural part of the reading process.

Another important insight for students was the difference between high quality miscues (those that do not change the meaning, such as substituting tiny for miniscule) and low quality miscues (which do change the meaning, such as substituting molecule for miniscule). They learned these primarily through games, including activities with dice, where partners created miscues for each other to mark and where students sorted miscues by type (high quality/low quality; omission, substitution, insertion, addition). Another successful game involved Anna putting miscues on the overhead and asking, “Is this high quality (hand raised in the air) or low quality (voice dropped and hand lowered to her knees)?” Students laughed, and many mimicked the hand motion or voice drop. Danielle’s students quickly came to refer to high or low quality as “high Q” or “low Q” as they talked about miscues. For example, on the exit interview, Davey said, “But my partner always makes high Q miscues, so it’s all good.” This comment was characteristic of the comfort level students displayed as they took ownership over the learning process during the miscue unit. Comments like these signaled their engagement.

Next, students marked the miscues of actual readers. Both teachers decided to read an article as students followed along. Teachers used https://newsela.com/ as a source of articles, all of which were nonfiction. Danielle had her students mark miscues with a highlighter first. Their only task was to listen and highlight where they heard something different. Beginning with a highlighter reduced the amount of information a student had to remember. Instead of remembering how to mark and what kind of miscue it was, the student simply highlighted the place where there WAS a miscue. Highlighting the miscues raised students’ awareness of the reading process. From there, they learned how to mark the type of miscue and decide if it was high or low quality as they heard it.

After students were comfortable with the marking, Danielle asked a popular eighth-grade boy if he would record himself reading. He not only recorded, but also joined the sixth graders to mark his miscues. Of course, that gave the teacher a perfect opportunity to engage in the CRMA conversation with him (“What were you thinking as you read?”).

<table>
<thead>
<tr>
<th>Observed Response</th>
<th>Convention</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substitution</td>
<td>Write the substituted word above it.</td>
<td><strong>began</strong></td>
</tr>
<tr>
<td>Repetition</td>
<td>Insert “R” and a line to show word(s) repeated.</td>
<td><strong>Tears begin to fall</strong></td>
</tr>
<tr>
<td>Self-correction</td>
<td>Write down attempt then insert “c” to indicate reader corrected the word.</td>
<td><strong>begun</strong></td>
</tr>
<tr>
<td>Omission</td>
<td>Circled word(s) left out or omitted.</td>
<td><strong>Tears begin to fall</strong></td>
</tr>
<tr>
<td>Insertion</td>
<td>Write down the added word and indicate with a caret.</td>
<td><strong>Tears begin down to fall</strong></td>
</tr>
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Table 1. Marking Guide

**Figure 2. Questions for the Conversation**

- Did the miscue make sense?
- Did it sound like language?
- What was the reader thinking about when the miscue occurred? *(What were you thinking as you read?)*
- Does it change the meaning?
- Did the reader self-correct?
- Was it necessary to self-correct? *(Moore & Gilles, 2005; Goodman & Marek, 1996)*
The recording allowed the sixth graders to gather around the table, replay the reading when necessary, and discuss markings. They were amazed that a popular eighth-grade boy not only miscued, but knew why and willingly shared his miscues. His act repositioned all of them as more than struggling readers.

**CRMA prompted focused, real reading.**
Throughout the CRMA unit, students were still engaged in independent reading, at least for a portion of each class. In their interviews, both teachers said that prior to CRMA students often just pretended to read when given self-selected independent reading time. As Anna lamented, “Ella was a fake reader when we started. She would read the same book, *Diary of a Wimpy Kid*, over and over and think that I wouldn’t notice it.” Yet, when the teachers found relevant and provocative articles for students to read for the CRMA, “fake reading” subsided. It is impossible to pretend to read when one is reading aloud and a partner is marking all miscues. Also, students must focus to read along with a peer and mark the miscues. Thus, a visitor coming into these classrooms would see partnerships of students fully engaged in the reading process.

Ella (who is African American) became so interested in culturally relevant articles about African American hair that she asked Anna if she might research the topic outside of class and bring in the information. She had never requested to extend her reading before! She and her partner Mary continued to choose articles concerning identity throughout our study. Another interesting CRMA conference found Ella and Mary debating gender. When Anna noticed this, she began sharing book talks in which the teen characters grappled with similar gender issues. Thus, both girls increased not just their reading, but extending their reading to think about social issues.

Teachers reported that students became more focused, even when they read during reading workshop time. In the final interviews, all students (21) said they had read more this year than in the preceding year, some drastically more. Jeneice put it this way:

> Mrs. Osborn said that I was a “book flirt”; I started books, dropped them, and moved on to other ones. So, after she said that I found this book *Perfect Chemistry* and I finished it in a week. That was kinda fun; then I started reading more. I think I’ve read 50 [books] this year.

Other students showed a similar pattern of behavior. They walked into class asking, hopefully, if it was a reading day. As soon as they finished a book, they looked around the room for another or asked to visit the media center for another novel. We understand that their enthusiasm was nurtured by CRMA, a strong reading workshop, and the relationships the teachers so expertly created.

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**Figure 3. Learning to Mark**

**Figure 4. Engaging in CRMA**
Students became more metacognitive about their reading.

By engaging in CRMA and having a better understanding of the assessment process, students began to think of themselves as readers. When interviewed at the end of the study about their reading, all students knew they made miscues and nearly all had ideas why (reading too quickly, not sure of a word, attention is somewhere else). Table 2 shows a sampling of the students’ interviews. The question these students answered was, “What did you learn about yourself as a reader from our CRMA work?”

From the chart, we see that all students acknowledge they make miscues, and most have figured out they need to correct those that are low quality. Many more of them are talking about making meaning (understanding the text) than they were in the beginning when many (like Ella) thought their brains just needed to remember words. Students also realized that they are progressing this year and reading more than they have in the past. One big change is that several students are not so stigmatized by oral reading, because they realize everyone miscues.

In addition to the students becoming more metacognitive about their own reading, CRMA took the mystery out of assessments where the student read aloud and the teacher marked miscues. Instead of worrying about what the teacher was marking, students understood the process. In fact, when the DRAII test was administered in the spring, some students reminded their teachers that they had miscued, but the teachers had not marked it! Knowing how to mark and code the assessment lessened pressure for the students. They relaxed more during the assessment and were more engaged. As Davey recalled, “It helped me that every miscue I did make was all HQ—I wanted to understand the story. I wanted to understand the story.”

Table 2. “What did you learn about yourself as a reader from our CRMA work?”

<table>
<thead>
<tr>
<th>Theme</th>
<th>No. of students with this theme</th>
<th>Example comment(s)</th>
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</thead>
<tbody>
<tr>
<td>Awareness of making miscues</td>
<td>16/21</td>
<td>“When I make a miscue, my brain is thinking a different thing because I’m hungry or tired.” (Feleysa)</td>
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<tr>
<td>(high- and low-quality, when to correct them, everyone miscues)</td>
<td></td>
<td>“I learned I go back and correct and sometimes low and sometimes high (quality).” (Annie)</td>
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<tr>
<td>Focus more on comprehension</td>
<td>5/21</td>
<td>“I miscue more than I intend to. I started reading easier books and now I’m not miscuing so much. I’m understanding the book more.” (Jeneice)</td>
</tr>
<tr>
<td>(Understanding is more important)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feels less stigma about oral reading</td>
<td>3/21</td>
<td>“I miscue a lot, but it’s not a problem. I make high-quality miscues. Sometimes I just take out the word when I’m reading.” (Ella)</td>
</tr>
<tr>
<td>Noticing improvement as a reader</td>
<td>5/21</td>
<td>“I finish books now. In 5th grade I only finished one book. This year I finished 5 books. I reread to make it make sense.” (Kelsey)</td>
</tr>
<tr>
<td>(changing book selection, reading more books, enjoying reading more)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous (strategies, awareness of dialect miscues, etc)</td>
<td>3/21</td>
<td>“I learned my pronunciation is different and people may think I sound different or weird. Now I just tell them, “I didn’t say anything else!” (Bahar)</td>
</tr>
</tbody>
</table>

Note: Because many students’ comments had multiple themes, the total adds up to more than 21.

Limitations and Conclusions

Not every student became a highly proficient marker of miscues, nor did every student correctly mark every miscue of their partner. Listening to the recordings, we noticed some miscues went unmarked or were marked incorrectly. However, confidence and metacognitive gains were made that were not contingent on perfect miscue marking. Students learned the mysteries of an assessment procedure that they undergo each year. They now approach assessment as a “known,” not an unknown. They are cognizant of what they do as readers and they are beginning to make adjustments accordingly. For example, the class talked about what to do when they encountered a difficult name in a story. They decided to call the character by the first name and keep going (Goodman, Watson, & Burke, 2005).

For these readers, it was essential to help them move from thinking error to miscue, because in doing so, they adopted an inquiry stance and became interested in what their brains were doing as they read. Learning about miscues and how to mark them raised the reading process to a conscious level for them. As they participated in the CRMA process with a partner, they took on more ownership of their own reading. They often heard them say, “Well, I miscue a lot, but most of them are high quality,” or “I’m working on making sense here.” As they became more involved with CRMA, they stayed with book choices
longer during reading workshop and began to trade titles more often. They began to transform their identities as readers. Instead of identifying with the club of “struggling readers” (Smith, 1987), students realized they were part of a much larger club of people who miscue, correct, and read for meaning (Stephens et al., 2012). We believe that over time, this insight may continue to transform their reading identities, which will impact their success as readers (Frankel, 2016; Hall, 2016).

Even though this study included only a small sample, we hope the promising results will encourage teachers to remove the mystery from assessments, help their readers be more metacognitive, and support readers to reshape reading identities.

References


Hall, L. (2016). “I don’t really have anything good to say”: Examining how one teacher worked to shape middle school students’ talk about texts. Research in the Teaching of English, 51(1), 66–82.


Carol Gilles is an associate professor in reading/language arts at the University of Missouri, where she explores CRMA, using talk (oracy) in learning, and children’s and young adult literature.

Anna Osborn has been a reading workshop teacher in Columbia Public Schools for the past 11 years and currently is a doctoral student at the University of Missouri and a member of the current class of Heinemann Fellows.

Danielle Johnson is a reading specialist who has taught reading intervention for 17 years. She recently completed her PhD at the University of Missouri and is interested in the impact of high-stakes testing on students and teachers.