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READING

Stories of Transformation: How Miscue Analysis Changes Lives

CONSTANCE WEAVER AND JULIE LEE

It happened in 1972. Or maybe '71 or '73, but the exact date doesn't matter. What does matter is the life-changing event: a two-day workshop on miscue analysis, offered at Wayne State University as a preconference event before an International Reading Association convention. My colleague Theone Hughes had introduced me to Kenneth Goodman's early articles on miscues as a window to the reading process (1965; 1967), and now we were sitting wide-eyed at the conference, mesmerized by Ken and the other presenters, stealing glances of confirmation from each other as we listened to research descriptions, examples of meaning-preserving miscues, and frequent laughter from the presenters as they caught themselves making miscues. What a heady experience!

What, you may ask, is a "miscue"? Ken Goodman chose the term as a *neutral* way of referring to what are traditionally called errors. A *miscue* is reflective simply of one or more missed cues in reading the words of a text—or in other words, every departure a reader makes from what the text says is a miscue. Goodman emphasized that the whole point of using the term "miscue" rather than "error" is to look at these departures from the exact words of the text *not* as something "wrong" but simply as data to be analyzed, in order to determine whether the reader seems to be attending to letter-sound relationships, syntax (grammatical cues), and semantics (meaning cues) while reading. Patterns of miscues might suggest, for example, that a reader is over-attending to letter-sound relationships and under-attending to meaning—a pattern we see so frequently these days, in the wake of No Child Left Behind's focus on phonics first.

Some students do, of course, try to sound out words, often fail to do so accurately, and still manage to focus on meaning. Others make miscues that suggest they are using effective strategies to construct meaning from text, yet can recall relatively little—a point to which I'll return. Whatever the dominant patterns, they offer teachers valuable informa-

tion for instruction, when examined within the context of other data associated with a miscue analysis.

Steeped in the miscue analysis procedures developed by Yetta Goodman, Dorothy Watson, and Carolyn Burke, I developed my own form for analyzing miscues, in response to my students wanting a form that more directly points to reading strategies that the reader might benefit from being taught, if any. Finally, I have come to call this my "sideways" approach to miscue analysis.

Careful study of the data enables us to look for *miscue patterns* that then enable us to respond insightfully to an important question: how frequently does the reader make miscues that suggest he/she may be anticipating what will come next? (I've recently adopted the term "anticipating" rather than "predicting," because students claimed that "predicting" must mean trying to determine the exact next word.) Examples:

you
"Now **^**come on 'fore you get us into a real mess."
[Read as "Now you come on 'fore you get us into a real mess."]

what
"He knows exactly **^** how to act." [Read as "He knows exactly what how to act."]

Notice that the two miscue examples above would traditionally be called *insertions*. While they are indeed that, labeling them as such does not uncover how they function in the reading process, does not reveal the possibility that the reader made these miscues because he or she was thinking ahead, or *anticipating* what might come next. Anticipating is a strategy we can infer from the fact that the miscues fit grammatically and semantically with what came before. In the following example, notice that the miscue would conventionally be called a *substitution*. More insightfully, we notice that this miscue also fits grammatically and semantically with what came before. It too may reflect a strategy of *anticipating*:

You're
 "I looked up at her. ~~You~~ crazy?" [Read as "I looked
 up at her. You're crazy?"

Something else I've been emphasizing in my "sideways" miscue analysis is that miscues can reflect a strategy of *monitoring comprehension*. This includes corrections, significant and seemingly relevant pauses and repetitions, and use of pictures. We can *infer* "monitoring comprehension" as a likely strategy if we notice such patterns in a reader's miscues. Take a look at the following examples:

©
 /Mrs
 Only the thought of Big Ma in Mr. [line break]
 Jamison's office saved Lillian Jean's lip.
 [The reader miscued, saying "Mrs." instead of
 "Big" (a logical anticipation). She then corrected
 "Mrs." to "Big." So, here is what she read: "Only
 the thought of Mrs. Big Ma . . .]

r
 I a **A**mbled along the **P** sidewalk trying to under-
 stand. [The **P** stands for a substantial pause, which
 I hypothesize the reader to have made for the pur-
 pose of trying to decide what the next word was.
 The reader read "I armbled along the . . . (pause)
 sidewalk trying to understand."

®
 I don't feel like /messing with Lillian Jean. [Conven-
 tionally, the ® for "repeated" would be attached to
 a line that curves under the repeated word, "mess-
 ing." The reader read "I don't feel like messing
 messing with Lillian Jean," with a repetition that I
 hypothesize to have occurred because the reader
 was confirming that the word she'd read, "mess-
 ing," really was correct.]

Of course I also ask another question: how well does the reader use fix-it strategies after making a miscue that doesn't make sense in context?

And my miscue coding form includes one question on whether each miscue leaves the essential meaning intact and another one on whether all the miscues in each sentence, taken together, do or don't leave the essential meaning of the story intact. Clearly, even conventional miscue analysis as developed by Yetta Goodman, Dorothy Watson, and Carolyn Burke is not rocket science, nor was it ever intended to be. Though there are standard procedures for marking and

analyzing miscues, these procedures still require thought and insight.

I've adopted these standard procedures (see also Wilde's 2000 book), but I simply use a different coding form that records most of the same data differently, to focus attention, in part, on whether each miscue suggests evidence of the aforementioned reading strategies. In other words, strategies are inferred from the recorded data. Such inferring requires a coding form that goes beyond that in the 2002 third edition of my *Reading Process and Practice*, or the 2009 brief edition of that third edition. You may email me if you'd like a copy of this newest coding form. What I'm offering here is my latest version of two analysis forms, as Appendix A and Appendix B. The coding form provides the data drawn upon for both forms, which can lead more directly to instruction than the basic coding form. Note how "anticipations" are handled in both figures, especially Appendix B; these reflect my latest thinking.

Obviously this is not rocket science at all; indeed, critics have claimed that miscue analysis is "only" a clinical procedure and cannot claim to be research. We disagree, but in any case, those who teach miscue analysis know that even after doing just one miscue analysis, teachers never listen to readers the same way again, seeing miscues only as errors. Miscue analysis is a powerful life-changer for teachers. And it can be a life-changer for their students too, whose reading—for a welcome change—is assessed by a knowledgeable human being, not a computer program.

Miscue Analysis as Only Part of a MAP

What I'm calling a Miscue Analysis Profile or MAP, as I call it, is much more comprehensive than an analysis of miscues alone. Why is this necessary? Because an analysis of miscues does not, by itself, give a reasonably complete picture of a reader's strengths and needs.

Take, for example, my granddaughter. During first grade, she was considered the best reader in her class. When I did a miscue analysis project with her shortly before she entered second grade, I engaged her in (1) a reading interview; (2) oral reading of what I thought would be a challenging but suitable text; (3) unaided retelling of the story; and (4) an aided retelling. Since even the aided retelling was not very satisfactory, I also had her (5) reread a page or so silently and look at an illustration that she hadn't bothered with, in order to see whether that would help. It didn't, so I explained the concepts to her. These procedures constitute most of

the constellation of procedures that are in a Miscue Analysis Profile, but these can be complemented with data on ecological factors, such as how the assessor interacts with the reader.

You see, my granddaughter was typical of so many children who have been taught to read by phonics alone, and expected to read the words of a text fluently, all before being told she should read for meaning. She demonstrated excellent strategies for getting words, and an analysis of her miscues suggested she had excellent strategies for comprehending.

But she wasn't reading for meaning. Of course it was fairly easy to help her make that transition, as her parents and I bought her interesting books and encouraged her to read silently, for pleasure—without worrying overmuch about getting all the words. But with instructional focus only on isolated skills, how long would it have taken for teachers to notice that she wasn't remembering what she read?

At the heart of the Goodman-tradition MAP, though clearly not sufficient by itself, is the basic idea of looking at miscues as neutral data and analyzing miscue patterns as a basis for instruction—in sharp contrast to calling departures from the text “miscues” but most often treating them as errors; counting them to determine reading proficiency on standardized, leveled texts; and then typically using those numbers to determine what a student allegedly can and cannot read. Contrary to what almost everybody else seems to be looking for, we who do such miscue analysis, broadly construed, are not seeking to ferret out every possible weakness that a reader might exhibit, but instead striving to uncover strengths and needs, then to use the strengths as a springboard for helping students become even stronger as readers.

Why I'm Still in Love with Miscue Analysis

Despite the current bureaucratic and political love affair with standardized tests that are crowding out teacher assessments, some undergraduates and some teachers in or beyond graduate school are still being guided in doing a MAP, as a way of better understanding the reading process, determining a reader's strategy strengths and needs, and planning instruction accordingly. Never again will they view a reader's miscues simply as errors to be avoided (by assigning simpler texts) or eradicated through drills on, let's say, phonics and words in isolation—the behaviorist approach.

Last week, Katie Henry, a young teacher to whom I was about to explain miscue analysis, asked me why I find it so exciting, even decades after I first learned about it. Caught

by surprise at the question, I still had a ready answer: miscue analysis in the Goodman tradition honors students as learners, looking for their strengths in how they read as well as uncovering their instructional needs. By recognizing strengths and drawing inferences about readers' strategies for comprehending, miscue analysis honors students as thinking human beings.

This concept is in sharp contrast to the avoid-errors-at-all-costs approach of educators under the spell of principles of learning articulated by B. F. Skinner, arguably the best-known behaviorist of his time. These principles became embodied in education via Edward Thorndike's [or Thorndyke's] laws of learning, simplistically understood. The litany goes like this: reduce what's to be learned to its smallest bits and pieces, practice each of these in isolation, and test each in exactly the way it was taught. Assume that mastery of these bits and pieces equals the whole, such as the ability to read.

This approach is still dominant in our schools, thanks to the common but misguided interpretation of the National Reading Panel report (2000) as requiring the teaching of five “pillars” of reading in isolation. In practice, this became a “skills” approach, already widespread but then promoted by the misleading “Reading First” initiative in the No Child Left Behind act of 2002. The later government-sponsored research demonstrating the ineffectiveness of this approach seems rarely to have reached the eyes of administrators and teachers (National Center for Education Evaluation, 2009).

For me, though, embracing miscue analysis was my first big step in adopting what I later came to understand as a constructivist perspective of human learning. (All my degrees were in English, not Education, so I had no background in learning theories then.) Miscue analysis was also an awakening to the idea of honoring students as learners and, more broadly, to thinking of teaching as a humane enterprise. I had simply not been conscious of wanting to embody such values in my teaching, being a very young and inexperienced teacher of literature and the English language. It was Ken Goodman's concept of “miscue” as a neutral piece of data that initiated this turnaround in my thinking, followed by further work of both Yetta's and Ken's.

Now teaching at Miami University in Oxford, Ohio, last semester I was finally able to incorporate miscue analysis, the set of MAP procedures, into a class titled “Phonics and Reading Improvement.” Basically I anticipated that teachers in the class would come to realize that students who fail to identify this or that letter-sound correspondence in isolation often have no trouble with that element in reading connected

text. Well, that's exactly what they learned. All of their so-called struggling readers that were chosen for the project, except for the one kindergartner, demonstrated that these readers don't really need more phonics instruction, even in the context of reading. Also, to the teachers' surprise, these readers were typically making strong use of letter-sound knowledge along with syntactic structure and semantic cues in the quest for meaning.

Julie Lee was one of those teachers who discovered the limits of phonics instruction.

Julie Lee: Another Teacher Changed by Miscue Analysis

I, Julie, have to admit that when I walked into Connie's class, I was thinking this was just another hoop to jump through to get my reading endorsement. I had heard she was a great professor, but I thought since I had taught reading for many years, there really wasn't much more I could gain from taking yet another class. I soon realized how very wrong I was.

I taught second grade special education for over seven years and my main focus was reading. I used all the standard ideas—sight words on flash cards, reading the same book over and over, studying blends, digraphs, and diphthongs. We practiced reading those sight words at least twice a week and did phonics activities almost daily.

Most of my students responded well to this type of instruction and seemed to know what they were doing when it came to reading. At that time, teachers were instructed to assure that students could read every word correctly without mistake, or skipping a word. I worked hard to see that my students were capable of doing this.

Then I met Connie.

As her class progressed, I soon came to realize that there is a clear difference between saying words correctly and reading for meaning. It just so happened that those same students I had in second grade were now my students at the high school. Two of them were enrolled in a class I teach, Reading Fundamentals, designed for struggling readers.

These students were still attempting to sound out words and would pause until they could figure out the unknown word or someone would tell them what it was. I, being what I thought was a great teacher, continued the practice of repeatedly reviewing blends, digraphs, and diphthongs. We read basic books and I always corrected them if they didn't know a word or pointed out when they skipped one.

We went over the same words, practicing the same "rules" of reading. When I mentioned this in a paper I wrote for Connie's class, she asked a question that really caught me by surprise. "Why are you still teaching these things if they aren't working?" Hmmm, why WAS I still teaching the same thing? Answer, because that was what I was taught, and quite frankly, expected to do!

We were asked to do a miscue analysis with one of our current students. I chose Chaz, a student that I had taught in second grade. Completing the miscue analysis was an amazing learning experience for me. I soon realized how much I had "helped" my students when they read. During the miscue analysis, the teacher is to only listen and not help in any way.

When the reading is over, the student is to retell the story or passage he or she has just read. I was quite surprised to learn that even though there were numerous miscues, the student was able to tell me the basics of what was going on in the passage. How was he able to do that with so many miscues? While he appeared to be reading to get the words correct, he was somehow able to process that story. This was a real eye-opener for me.

As Connie's class progressed further, I began to change how I teach the Reading Fundamentals class. We do much more silent reading and when the students do read out loud, I do not correct every miscue they make. In fact, I rarely correct any miscues.

Why? They understand what they are reading without getting every word. I've learned to model for them the miscues I make when reading to them. I even point out to them when I make a miscue and try to impress on them that it's okay not to get every word right as long as I'm understanding what I'm reading.

How Miscue Analysis Has (Just) Begun to Change the Life of Julie's Student

After seeing the miscues Chaz made, Connie's teachings rang true to me. A number of his miscues were made because he was obviously looking ahead, or anticipating what was coming next. Here is a stretch of text, wherein several

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How do you feel about reading? Still not my favorite thing. I feel about the same. I like reading silently better than I used to so I don't have to speak out loud. It makes the words sound easier in my head than out loud.

When you are reading, what are you trying to do? Sounding it out, to get better at it and to understand what I read. I'm trying to understand the story more than getting the words right now.

Do you prefer to read aloud or silently? I like to read silently because I can take my time.

When you come to a word you don't know, what do you do? Attempt to sound it out, skip it, guess, think of a different word to put in its place.

What do you do when reading silently and you don't know a word? Skip it, sometimes, I can somewhat still follow the story still. When using a different word it helps me get the story. I change names a lot when I don't know what it is, but names don't really matter.

What else do you think you could do when reading out loud? Ask someone, other than that I don't know.

How do you feel about yourself as a reader? Not good.

Is this different from how you felt in Sept.? I feel a little better than in Sept. I have a little more confidence.

What do you do well as a reader? Take less time trying to find out what a word is and then I just move on.

What, if anything, would you like to do better as a reader? Read faster and learn more words.

Why do you read? To get better, to get a job, get information for class.

Are you glad you are in the Reading Fundamental class? It's a good thing so I can get better. I might read a book on my own if I'm interested in the topic.

Figure 1. Chaz's reading interview responses in March, after Julie modified her instruction the previous fall. This set of questions includes some from the Burke Reading Inventory (Burke, 1980), reprinted in Goodman, Watson, & Burke, 2005.

miscues appear to be anticipations. Again crossouts are used when an anticipation miscue replaced the word in the text, and for other omissions. A carat **^** indicates an insertion.

#11 tubby
Ham was a ~~chubby~~ kid, always eating a candy
#12
bar or a doughnut. He was ~~also~~ always smiling.
Ham could find the fun in just about anything.
#13 in
"You got it man! Come on **^** home! Look
#14 #15
at him ~~rubba-legging!~~" yelled Kenny ~~DeNunez~~,
smiling
~~laughing~~ at the way Benny was faking out the other
team by moving all over the place.

For example, Chaz omitted "also" (miscue #12), apparently already anticipating "always," which was the next word. The word "always" made perfect sense without the word "also" before it, so he moved on. And of course it made

sense to anticipate "in" (miscue #13) in the sentence "Come on home!" because teammates would want a baseball player running the bases to come on in to home. Regarding miscue #11, the text word was "chubby," but Chaz said "tubby." Again, this word made perfect sense. It never ceases to amaze me how he can replace a word with another word that means basically the same thing.

While "chubby" and "tubby" look alike, which does make the miscue more likely, another miscue, #16, occurred on the word "laughing." He read, without hesitation, the word "smiling." How did he make that connection? These words look nothing alike—but then again, the word "smiling" had occurred in the previous sentence, so Chaz probably anticipated the same word. This again goes back to Connie's idea that he was anticipating what was coming up next and said a word that would make sense in the context of the sentence.

I asked Chaz some questions about reading before having him read for the miscue analysis in November of 2012. He clearly did not like reading and could not even see the benefit of reading well to get a job. I asked basically the same questions (Figure 1) in March 2013. His responses this time to certain questions are encouraging, suggesting some progress as a result of my emphasizing silent reading, plus

demonstrating additional strategies for handling problem words. Of course I must honestly say I have not “cured” Chaz of his dislike for reading, but then, given that he’s experienced the same kind of remedial reading instruction I provided him during second grade and for most of the past five years, I doubt it would be realistic to expect him to have made a complete turnaround in less than four months.

But I do believe that he has learned some strategies for dealing with problem words and text and has a more positive attitude toward reading. I think the most important thing I learned from the interview I’ve just conducted is that Chaz now recognizes that he replaces words when he reads, and . . . it’s okay! He has also learned that in the overall scheme of things, names he can’t read do not matter much when it comes to understanding the story. My favorite part of the interview was when he was finally able to state that he reads, “to get better, to get a job, get information.” I was so happy that he is beginning to see the value in reading.

As mentioned above, I’ve known Chaz since he was in the second grade. For him to verbalize that he might read a book on his own was nothing short of amazing. Three months ago he would have laughed at the thought of choosing to read a book rather than being assigned to read. While his progress continues in baby steps, at least we are taking steps in the right direction.

Looking Back and Moving Forward

Surely you’ve realized that one reason I, Connie, decided to write this article was to celebrate the potentially life-changing contributions made to the profession by my heroes Kenneth Goodman, Yetta Goodman, Dorothy Watson, and Carolyn Burke. I also wanted to share with others who do miscue work my refined concept of “sideways” miscue analysis. Most of all, though, I wanted to introduce newer generations to miscue analysis—because I think it’s so important for teachers in understanding the reading process and, if they can, resisting simplistic approaches to teaching reading as mastery of isolated skills. To repeat: even doing just one miscue analysis with an incipient understanding of reading as a socio-psycholinguistic process, teachers likely will never view reading or their students’ miscues in the same way.

And so I and many others continue the work. Next for me will be a publication and presentations with collaborators, including the aforementioned fourth-grade teacher Katie Henry, who is eager to begin our research project embedding miscue analysis within “rhizoanalysis,” a relatively unknown

qualitative methodology that my colleague Sheri Leafgren (2009) introduced me to, and that she will contribute to the project. Rhizoanalysis offers a unique methodology for us to examine both predictable and unpredictable ecological factors, those we anticipate but also that pop up unexpectedly in developing a complete Miscue Analysis Profile with Katie’s fourth grader.

In many other places, too—notably at Hofstra University with Debi Goodman and Alan Flurkey—the Goodman tradition of miscue analysis still changes people’s lives.

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Stories of Transformation: How Miscue Analysis Changes Lives

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Appendix A. Modified substantially from Figure 7.8 in *Reading Process: Brief Edition of Reading Process and Practice*, 3rd ed., Heinemann, 2009. © 2013 by Constance Weaver. May be reproduced for use.

READER _____ GRADE/AGE _____ DATE _____ RATER _____ TEXT READ _____
How well did the reader use prior knowledge and context to anticipate (predict) effectively? Circle or underline one option, then provide examples: Almost never / seldom / about half the time / frequently / almost always
How often did the reader correct miscues that definitely did not make sense in context? (Or, how often did the reader correct miscues that seriously affected the meaning of the sentence?) Almost never / seldom / about half the time / frequently / almost always What initially seems to have cued the correction: following context that would make the miscue not sound right if the reader continued, graphic cues alone, or . . . ? Examples?
How often did the reader use, or try to use, fix-it strategies when the miscue definitely did not make sense in context? This would include unsuccessful attempts to correct. Almost never / seldom / about half the time / frequently / almost always
What evidence is there, if any, that the reader seemed to be using pauses, rereading, or repetitions as a confirmation or a "think a moment" strategy?
If the sounds of a substitution miscue did not show close or any resemblance to the sounds of the word or words in the text, how often did that miscue preserve the essential meaning? Almost never / seldom / about half the time / frequently / almost always

Appendix B. Miscue analysis record form, modified substantially from figure 7.7 in *Reading Process: Brief Edition of Reading Process and Practice*, 3rd. ed., Heinemann, 2009. © 2013 by Constance Weaver. May be reproduced for use.

READER _____		RATER _____	
TEXT READ _____		DATE _____	
MISCUES Total #____	Preceding context		Following context
	number	percent	
Y = yes, acceptable			
P = partially acceptable			
N = No, not acceptable			
Total		100%	100%

MISCUES (just the miscues that at first glance might be taken as simple insertions or substitutions)	Does the insertion or seeming substitution miscue seem likely to have been an anticipation?		If “no” in the previous column, then code the miscue (including non-word “substitutions” here).	
	Yes? number	No? number	number	percent
High phonic similarity, preserves meaning				
High phonic similarity, doesn't preserve meaning				
Low or no similarity, but makes sense in context				
Low similarity, doesn't make sense in context				
No similarity, doesn't make sense in context				
Total				

MISCUES	Meaning acceptability within sentence as the reader left it (columns 4 & 5 of coding form)	
	number	percent
Y = yes, acceptable		
P = partially, or unclear		
N = no, not acceptable		
Total		100%

MISCUES	Meaning acceptability within text as the reader left it (column 8, coding)	
	number	percent
Y = yes, acceptable		
P = partially acceptable		
N = no, not acceptable		
Total		100%