



MISCUE ANALYSIS FOR CLASSROOM USE

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During oral reading, students often say something other than what is actually printed in the book. Such "miscues" can be used to help teachers make decisions about upcoming reading instruction. Deviations from text during oral reading are not simply random mistakes (Goodman, 1969), but form patterns that reveal useful information about children's reading abilities. A relaxed version of miscue analysis can take as little as ten minutes to administer and score. This kind of information provides a profile of the reader's strengths and weaknesses which in turn gives important clues as to the range of strategies students use during reading. Warning! Miscue analysis may be habit forming. Some teachers have commented that once they get started, they often take advantage of oral reading whenever it occurs, to jot and code miscues.

Usually considered only as a part of informal reading inventory as a package, miscue analysis is overlooked as a helpful tool in and of itself. Abbreviated forms can be conducted on the spot with nothing more than a pencil and a duplicate of the student's text. One might even code in pencil in their own manual. Time consuming individual diagnostic sessions are not necessary since coding can take place anytime oral reading occurs within the school day; during reading, social studies, science, etc. Reading samples taken from actual classroom settings helps to insure that the results are representative of students' daily performance. As an alternative to the common deficit model, miscue analysis of this sort is valuable for documenting what students already do well so that instruction can be designed to build on their areas of strength. Teachers can share findings with students individually or as a group to stimulate metacognitive awareness about effective strategies for processing print.

Although Goodman and Burke's Reading Miscue Analysis

(1972) is comprehensive, well accepted, and commercially available, reading clinicians and specialists have been more likely to use RMI than teachers because of the amount of time this version takes to administer and analyze. For example, the RMI suggests nine categories of analysis for every single miscue. For application within the hectic school day, teachers need a more economical miscue analysis that still provides relevant diagnostic information.

Classroom teachers can easily apply the general principles outlined in RMI without the extensive analysis suggested by Goodman and Burke (Harris and Smith, 1980). For instance, if a child seems to be reading words or letters backwards, analysis can be focused on reversals to determine if this is actually the most pressing problem and what percentage of miscues is reversals. Another area of concern is phonic knowledge. Miscue analysis can provide a picture of whether or not miscues have repeated phonic similarity in the beginning, the middle, and/or the end of the word. This helps teachers decide where to concentrate time and effort for follow-up instruction. One of the aims of reading instruction should be to develop students' use of complementary strategies that combine phonic knowledge with the larger context of the passage so that comprehension is achieved. This becomes a more realizable goal when the students' reading behaviors can actually be inventoried.

STEP BY STEP

In general, steps for using classroom miscue analysis are as follows:

1. Select material that is unfamiliar to your student. It could be part of a basal reading story or a subject area text. Even "good" readers usually miscue with new material.
 2. Copy the reading selection and code miscues while the student is reading.
 3. If you choose to administer on an individual basis, reduce student anxiety by telling them that this is not a "test". Students get used to your coding if you do it often enough.
 4. Have the student read the passage out loud, without preparation. Tape recording allows more assurance that all miscues will be coded accurately but is often not
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practical in a noisy setting.

5. Put miscues on summary sheet for analysis.

CODING

No two inventories have the exact same system for coding miscues, thus it isn't a case of the "right" way to mark miscues. Consistency in coding helps when it is time for analysis; therefore, just decide on a system that is easy to use. Keeping up with the reader is a consideration--your code should be kept simple. Checkmarks, circles, slashes, and underlining work well for these purposes. My adapted system is included as an example (Fig. 1). Remember that marking all miscues is recommended to allow a complete reconstruction of the whole session, even if some errors are not included in the final analysis. This is especially important if tape recording is not possible.

Figure 1
Possible Coding System

Omission	the (old) tree
Insertion	the old ^{oak} tree
Pause	the /old/ tree
Substitution	the old tree ^{tray}
Repetition	the old <u>tree</u>
Reversal	the old tree ^o
Correction	the old tree ^{tray}
Word Supplied (by teacher)	the old tree ^T

ANALYSIS

Reading is a complex process that involves the interaction of all aspects of language. Therefore, significance is not attached to any single miscue but to the repetitions or patterns that become evident in the oral reading of a text. Twenty to twenty-five miscues should provide enough information for accurate analysis.

To organize miscues as to variety and frequency of

occurrence, miscues are transferred from the text on which the original coding was done, to a teacher-made summary sheet (Fig. 2). Remember yours can be made on the spot--effectiveness is not determined by a fancy form!

Figure 2 - Example Summary Sheet of Oral Reading Miscues

Student's Name _____		Date _____		
Text	Miscue	Meaning Change	Graphic Change	Self Corr.
			B M E	
1				
2				
3				
4				

This kind of sheet is extremely valuable for documenting student progress and for exhibiting examples of reading behavior. Write in the correct word as it appeared in the book in the first column. Next to it write in the child's miscue as close as possible to what was actually said. It seems to be easiest if all the text and miscues are filled in before beginning the analysis.

The decision as to what to analyze should be guided by the overall goals of reading instruction. Comprehension, phonic knowledge and the development of independent readers can be translated into the categories of meaning change, graphophonemic similarity (beginning, middle, and ending), and self correction attempts. Insight into these aspects of miscue analysis can be achieved by asking three common sense questions about each miscue.

1. Meaning change. - Is the meaning changed by the miscues as finally produced by the reader? The answer could be yes, no, or partly.

2. Graphophonemic similarity. - Are the miscues graphically similar to the text in the beginning, middle, or end of the word?

3. Self correction. - Does the student try to "fix" his or her own miscues?

SETTING PRIORITIES

Numerous possibilities exist as to how the student's summary of miscues may read. One student may show ability to use content in such a way that meaning is preserved but miscues are not graphically similar to the text. Given the sentence "The girl ran quickly down the road", the student who reads "The girl ran quickly down the street" has not made a significant miscue because the underlying message is close to the original. Instruction that would encourage a more active use of text through rereading, prediction, confirmation, and making inferences would be appropriate in a case like this. Of more concern would be readers who have high percentages of graphic similarity but whose miscues repeatedly obscure meaning. Reading the same sentence "The girl ran quietly down the strad" would be typical of a child who has a single strategy for reading that consists of sounding out the words for accurate phonic representation.

Reading is a complex process that involves using a symbol system in order to understand the message. Readers come with personal experience, existing knowledge, preferences, and different levels of sophistication for turning those symbols into something that speaks to them. In this sense, reading is not a precise, symbol by symbol, or word by word progression. Meaning is an integral part of reading.

CASE STUDY

Halley is the kind of child who is under her chair more often than she is on it. A second grader, Halley did not qualify for any special services within her school system. Yet, she cannot seem to keep up with any of the three reading groups that her teacher has set up. One of the first grade teachers tried to fit Halley into one of her reading groups but Halley seemed to make little progress for the amount of disruption she caused. A series of diagnostic sessions that included an examination of visual and perceptual abilities, and a complete battery of psychological tests indicated that Halley seemed to be

within average ranges in all areas. Halley's miscue analysis is included with some of the instructional recommendations that resulted from the analysis and interpretation (Figures 3 and 4).

FIGURE 3 - Passage With Coded Miscues

The ^{best} bees had been making ^{non} honey all day long. At night it was ^{cold} cool and ^{climb} calm. I had slept well until I heard a loud noise near my window. It sounded as if someone were trying to break into my cabin. As I moved from my ^{coat} cot, I could see something ^{back} black standing near the window. In ^{fright} fright I knocked on the window. Very slowly and ^{quickly} quietly, the ^{great} great shadow moved ^{and done} down and ^{what was} went away. The next day we found bear ^{taking} tracks. The ^{dear} bear had come for the honey that the bees were ^{taking} making in the ^{atruk} attic of the ^{big bear} cabin.

(Johns, 1981)

Interpretation

After copying Halley's miscues to a summary sheet they can be analyzed for one or more of the following: graphic similarity, or how much the word she said looks and sounds like the word in the book; meaning change, or whether the word she said alters the meaning enough to interfere with comprehension; self-correction, or whether or not she attempts to correct her own miscues. Total the columns and determine percentages, but remember that the overall picture is more important than any individual pattern or numerical score.

Before examining the profile of Halley's miscues quantitatively, a general observation can be made. Scanning down the miscue column reveals that all but two of Halley's miscues are real words. This is a strength and implies that Halley is using her knowledge of oral language to produce actual words that she knows as she reads. A more troubled

FIGURE 4 - SUMMARY SHEET

TEXT	MISCUE	MEANING			
		CHANGE	B	M	E CORR
1 bees	best	yes	✓	-	*
2 honey	hon	yes	✓	-	
3 cool	cold	partial	✓	-	
4 calm	climb	yes	✓	-	✓
5 trying...I	-	yes	-	-	-
6 cot	coat	yes	✓	-	✓
7 black	back	yes	✓	✓	✓
8 fright	fight	yes	✓	✓	✓
9 quietly	quickly	yes	✓	-	✓
10 great	greet	yes	✓	-	✓
11 shadow	sound	yes	-	-	-
12 ~	and	yes	-	-	-
13 down	done	yes	✓	-	✓
14 went	what	yes	✓	-	✓
15 away	was	yes	-	-	-
16 tracks	taking	yes	-	✓	-
17 bear	dear	yes	-	-	✓
18 making	taking	yes	-	✓	✓
19 attic	atrak	yes	✓	-	✓
20 cabin	big bear	yes	-	-	-
21					
22					
23					
24					
25					

Total % 100 / 60 / 20/55/5

reader might produce words that are graphically similar but are made up, like Halley's miscue numbers two and nineteen.

Another interesting aspect of Halley's reading behavior occurs in the category of meaning change. Ninety-five percent of her miscues were found to alter the intended meaning. Considering that there are one-hundred words in this passage, and nineteen of the words were changed enough to affect meaning, we can assume that it could be difficult for Halley to understand fully what the paragraph said. Looking at the original coded passage, the slashes show frequent and lengthy pauses between words. This choppy, word by word reading combined with the omission of almost an entire line is a signal that Halley is probably more concerned with decoding than with achieving meaning.

Preoccupation with accuracy can accompany a breakdown in the reading process. If Halley's attention is concentrated on individual sounds or words she may experience a kind of tunnelvision that blocks her idea of the text as a whole. Meaning is cumulative and needs to be actively constructed by putting the clues that are in the text together to find out what the author means. Otherwise, reading becomes an activity that is characterized by a halting sequence of calling out words, as Halley has shown.

Halley does have an ability to use her phonic knowledge. Her strength is in utilizing beginning and ending sounds, which is often the case with below level readers. But even in miscues like sound for shadow or was for away, Halley is using consonant clues from within the word to come up with her substitution. Rather than remedying her vowel deficit directly, recommendations were made to help Halley use her strengths in CLOZE passages that will also improve her ability to use vowels in context.

Figure 5 - Sample Close Passage "Alice in Wonderland"

Directions: This passage begins with Alice chasing a rabbit right into his rabbit hole. Words have been left out in some places. See if you can use the letter clues to help you write in words that make sense to finish the story.

In another moment, down went Alice after it, never once considering how in the world she was going to get

out. The r_____ hole went straight on for some way, then dipped s_____ly down so that A_____ didn't have a moment to think about stopping herself before f_____ down what seemed to be a very deep well.

(Vacca, 1981)

Halley does not attempt to correct own own miscues enough. In the case of skipping over an entire line of print, Halley may be having trouble keeping her place during reading. A simple solution is a clear plastic bookmark that does not block her peripheral view of surrounding print (Smith, 1978). Self-correction attempts seem to increase dramatically after students listen to their own oral reading on tape and are encouraged to determine if what they heard made sense. Accepting meaningful substitutions that even look quite different from the word in the story helps a student like Halley believe that you mean it when you say that the aim of reading is to understand and make sense (look at miscue #3).

CONCLUSION

Teachers and students benefit when miscues are analyzed in a way that leads to classroom activities which add to the students' range of reading strategies. Occasionally students with puzzling reading problems present teachers with a need for more specific information about reading behavior. But since opportunities for observation, reflection, and problem solving are limited in the reality of a busy classroom, coding, analysis, and interpretation of readers' oral miscues provide access to understanding what goes on in readers' minds during reading. Classroom miscue analysis enables teachers to systematically examine reading behaviors that indicate students' reading strengths and weaknesses in a focused and manageable way. Informed insights gained from a quick and flexible version of miscue analysis can help both the students and teacher experience success.

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