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A SIMPLIFIED MISCUE ANALYSIS FOR CLASSROOM AND CLINIC

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After years of research in the analysis of oral reading, Kenneth Goodman published The Goodman Taxonomy of Reading Miscues (1969). The taxonomy provided a system by which researchers could investigate the strategies a reader seems to be using while reading. Every time a reader read something other than what was on the page, Goodman labeled that deviation a miscue and asked 28 linguistic questions about how compatible that miscue was with the passage being read. Goodman argued that all readers make miscues and that miscues which are highly compatible with the context of the passage are signs of good reading rather than faulty reading.

Later, Yetta Goodman and Carolyn Burke transformed the taxonomy into a diagnostic kit called the Reading Miscue Inventory (1972). The RMI manual includes directions on how to mark, select, and code miscues for analysis. Nine questions are asked of each miscue as to how compatible it is to the passage, and a retelling or summary score is computed as a measure of comprehension. Answers to the nine questions and the retelling score are entered on a miscue analysis profile sheet and reading instructional strategies are outlined for each general type of profile.

For the reading clinician or special reading teacher, the RMI has several advantages. It is the only major diagnostic tool so far developed which is based on a psycholinguistic model of reading. Moreover, the RMI is educational for the teacher, who becomes a student of the child's reading rather than just attempting to compute a test score. These advantages and others have led Cooper and Petrosky (1976) to describe the RMI as "an individual diagnostic scheme that makes anything else currently available seem medieval."

Unfortunately, the RMI has several disadvantages as well. A major problem with the RMI is the time needed to administer, score, and interpret it. If teacher-selected passages are used, more time is needed due to the long process of computing a retelling score for each passage. Another problem is the confusion brought about by the question: "Does the miscue result in a change of meaning?" For all the other questions, a yes appears to connote a strength, while here a no appears to connote a strength. There are also problems with inter-judge reliability and with interpretability of results, and the semantic and syntactic questions are confounded.

The length of time required to give the RMI has been previously criticized by Tortelli (1976) who reduced a miscue analysis to a two-question adjunct to other diagnostic tests. Unfortunately, Tortelli's miscue analysis gives no information with respect to grapho-phonetic strength and leaves out the most important question in any miscue analysis: "Was the miscue corrected?"

In light of the work of the Goodmans, Burke, and Tortelli, the author has developed a miscue analysis system which attempts to maintain the strengths and completeness of the RMI while eliminating most of its weaknesses.

A Simplified Miscue Analysis (SMA)

Step 1: Have the student read orally from a selection (at the easiest level above instructional level) which is long enough that a minimum of 25 miscues will be made (not counting pauses or repetitions).

The easiest level above instructional level is used as the difficulty level of material because one obtains a different miscue profile from a reader depending on how difficult or easy the test passage is for that reader (Williamson & Young, 1974). The easiest level above instructional level should be used for an SMA so that one can see the relative strengths and weaknesses of the reading cueing systems in material just barely too hard. The profile will then tell you why the passage is barely too hard so that the resulting instruction may raise the student to that next level.

Step 2: Using a coding system, make an exact, written recording of the student's oral reading.

Any complete coding system which the teacher has learned to use in giving an Informal Reading Inventory, standardized test, or the RMI may be used.

Step 3: When the student is finished reading, remove the passage and ask the student to summarize what has been read—rate the comprehension based on the summary, as "almost all," "most," "some," or "almost none."

Step 4: Sequentially number the miscues (not including pauses or repetitions); do not include miscues which were triggered by immediately previous miscues.

Step 5: Make chart on which all four yes-or-no questions are answered for each numbered miscue.

The following criteria are to be used for answering the four SMA questions for each miscue:

1. Did the miscue look like the original wording?

Following Hood (1975-1976), any miscue which is a change in word-order or letter-order within words (reversals other than letter confusions like *b* for *d*, would receive a *yes* to question 1. Any omission or insertion and any punctuation miscue are given a *no* because they do not preserve the "look" of the original. All substitutions (whether real-word or non-word substitutions) are given a *yes* if and only if:

- a. The first half of the letters of the original word are exactly retained at the beginning of the substitution;
or
- b. The first and last letters of the substitution are identical to the first and last letters of the original word and the word length of the substitution is within one letter of the length of the original word.
2. Did the miscue leave the syntax of the passage essentially the same?

For miscues which are real-word substitutions, a yes is given if the word is the same part of speech (form-class) as the original word; a no is given if it is not. For miscues which are non-word substitutions, the ending of the substitution is used to infer the part of speech intended by the reader and the question is answered yes or n, accordingly. Any insertion, omission, or substitution of ending punctuation receives a no since such miscues always alter syntax. For any insertion, omission, or word reversal, read the original sentence without any miscues and then read the original with only the miscue being scored. Decide if the miscue maintains the syntactic structure of the original sentence; score the miscue yes or no, accordingly. (The miscue should not be scored as to whether it is "grammatically correct" but whether or not it maintains the sentence structure of th

3. Did the miscue leave the meaning of the passage essentially the same?

Readers who say something synonymous to what the page says, receive yes's to question 3. Otherwise, any addition to, deletion from, or change in the meaning on the page receives a no.

4. Did the reader successfully correct the miscue?

The reader only receives a yes to question 4 if the reader's final response to the original wording on the page restored that original wording.

Some sample miscues will illustrate how these questions might be answered in different situations:

The teacher is going to school in her ^{#1} ~~be~~ ^{#2} new, ^{#3} ~~little~~, ^{#4} ~~car~~, red automobile.

Miscues	<u>Questions</u>			
	#1	#2	#3	#4
#1	no	yes	yes	no
#2	no	yes	no	no
#3	no	yes	yes	no
#4	no	yes	yes	no

#1
#2
#3
#4
roman want
Colonel's
canteen

The thirsty nomads went for the colonel's canteen.

* "for" is not numbered as a miscue because "for" could not follow "want." and thus the omission is triggered by the substitution of "want" for "went" - See step 4, above.

Miscues	Questions			
	#1	#2	#3	#4
#1	yes	yes	no	no
#2	yes	yes	no	no
#3	yes	yes	no	no
#4	yes	yes	no	no

Step 6: Analyze this chart by making a frequency count of each pattern of miscues with respect to the three cueing systems.

The SMA yields a percentage of strength for each of the three cueing systems: grapho-phonetic, syntactic, and semantic. These three percentages are coupled with the rating of the student's retelling (Step 3, above) to form the student's miscue profile. (These percentages should not be computed unless there are at least 25 miscues involved.)

The percentage of strength for grapho-phonetic cueing is computed by this formula:

$$\frac{\text{number of yeses to question 1}}{\text{number of yeses to question 1 plus number of noes to question 1}} = \frac{\quad}{\quad} = \frac{\quad}{\quad} \%$$

The percentages of strength for semantic and syntactic cueing are computed by counting patterns of answers to questions 2, 3, and 4. Put the total number of patterns for each type in the slot(s) provided to the side. Column totals are then entered in two formulae.

Patterns	#2	#3	#4	Semantic		Syntactic		Unclassifiable
				Strength	Weakness	Strength	Weakness	
a	yes	yes	yes	—	—	—	—	—
b	no	yes	yes	—	—	—	—	—
c	yes	no	yes	—	—	—	—	—
d	no	no	yes	—	—	—	—	—
e	yes	yes	no	—	—	—	—	—
f	no	yes	no	—	—	—	—	—
g	yes	no	no	—	—	—	—	—
h	no	no	no	—	—	—	—	—
totals				—	—	—	—	—

Semantic Cues:

$$\frac{\text{number of semantic strength patterns}}{\text{number of semantic strength patterns plus number of semantic weakness patterns}} = \frac{\quad}{\quad} = \quad\%$$

Syntactic Cues:

$$\frac{\text{number of syntactic strength patterns}}{\text{number of syntactic strength patterns plus number of syntactic weakness patterns}} = \frac{\quad}{\quad} = \quad\%$$

Step 7: Interpret the miscue analysis.

Enter the three percentages of strength and the rating of the summary in the appropriate slots in the student's profile. Put the cueing system with the highest percentage in the top slot, etc.

Student's Profile:

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	_____	_____
2	_____	_____
3	_____	_____
Summary = _____		

Interpret this profile by comparing it with the two extreme profiles, ideal and terrible. These extreme profiles have been developed by the author after careful and extensive reading of writings by the Goodmans (including the RMI manual by Goodman and Burke).

Ideal Profile:

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	<u>Semantic</u> _____	$\geq 90\%$
2	<u>Syntactic</u> _____	$\geq 85\%$
3	<u>Grapho-Phonic</u> _____	$< \text{Semantic and Syntactic}$
Summary = <u>Almost All</u>		

Terrible Profile:

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	<u>Grapho-Phonic</u> _____	$> \text{Semantic and Syntactic}$
2	<u>Syntactic</u> _____	$< 60\%$
3	<u>Semantic</u> _____	$< 50\%$
Summary = <u>Almost None</u>		

Those areas of the profile which most resemble their counterparts in the ideal profile are strengths; those areas which most

resemble those in the terrible profile are weaknesses. Each of the four areas of the profile must be classified as either a relative strength or a relative weakness.

Some sample profiles will illustrate how this interpretation might take place:

Mary's profile:

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	<u>Syntactic</u>	<u>75%</u>
2	<u>Grapho-Phonic</u>	<u>72%</u>
3	<u>Semantic</u>	<u>50%</u>
	Summary = <u>Some</u>	

Strength(s) = Syntactic &
Grapho-phonc

Weakness(es) = Semantic &
Summary

Willy's profile:

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	<u>Grapho-phonc</u>	<u>92%</u>
2	<u>Syntactic</u>	<u>65%</u>
3	<u>Semantic</u>	<u>55%</u>
	Summary = <u>Some</u>	

Strength(s) = Grapho-phonc

Weakness(es) = Summary & Syntactic
& Semantic

Jay's profile

<u>Order</u>	<u>Cueing System</u>	<u>Percent</u>
1	<u>Semantic</u>	<u>77%</u>
2	<u>Syntactic</u>	<u>55%</u>
3	<u>Grapho-phonc</u>	<u>34%</u>
	Summary = <u>most</u>	

Strength(s) = Semantic & Summary

Weakness(es) = Syntactic &
Grapho-phonc

Conclusion

The Reading Miscue Inventory was the beginning of psycholinguistic diagnosis in reading. Unfortunately, in addition to its many pioneering advantages, it had several disadvantages. The author has developed a Simplified Miscue Analysis in an attempt to maintain strengths of previous systems of miscue analysis while eliminating most of their weaknesses.

An experienced administrator can give, score, and interpret an SMA in less than 30 minutes. The answer yes connotes a strength for all four questions. The question, "Did the reader successfully correct the miscue?" is the last question answered to prevent confusion. The guidelines of Joyce Hood (1975-76) have been in-

cluded whenever possible in the answering of the questions to increase inter-judge reliability. The semantic and syntactic questions are no longer confounded. The resulting profile is more easily interpreted.

A major limitation remains with the SMA. Even though the SMA takes less time to administer, score, and interpret than does the Durrell, the RMI, the Spache, and some IRI's, 30 minutes per student is still too long for regular classroom teachers to test all students.

Given this limitation, in the years in which the SMA has been given at the UNC Reading Clinic, we have found that an SMA profile has enabled us to help several students for whom other means of diagnosis had been inconclusive or contradictory. We recommend it for use in reading clinics and by special teachers, and we believe regular teachers will find it useful with those particular students who most confuse and frustrate them.

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