ABSTRACT
        A study was conducted to determine if students could
learn to monitor and evaluate their own reading performance. Five
fourth and fifth grade students having a reading score indicating
achievement within one year below grade level participated in the
study for six weeks. Subjects spent one hour per school day learning
how to monitor their reading behavior by using four informal
diagnostic techniques: Veath's rule of thumb, the Informal Reading
Inventory, the Cloze technique, and the cassette recorder as a means
of applying the synthesized concepts of the other techniques. By
compiling a list of the questions used by the subjects in the order
that they mastered them and by noting the week in the study and the
percent of mastery, it was concluded that students can learn to
monitor and evaluate their reading performance and that this can
encourage the development of their syntactic and semantic systems
expressed through their language. (TS)

Leon E. Williamson
Assistant Professor
College of Education
Box 3AC
New Mexico State University
Las Cruces, New Mexico   88003

Dorothy Randolph
Oslo American School
APO, New York   09085

Self Diagnostic Reading Centers

in the Elementary Classroom

Leon E. Williamson
New Mexico State University

Dorothy Randolph
Oslo American School

Students can learn to evaluate their reading performance when directed to do so. There are four informal diagnostic techniques which may be used to teach students how to monitor their reading. The most simple of these techniques is what Veatch (1972, p. 10) calls the rule of thumb. The rule of thumb is:

> Choose a middle page with a lot of words. Read silently. If you come to a word you don't know, put down your thumb. If you find another, put down your first finger, etc. If you use up all your fingers, the book is too hard, so put it back and try another.

The Informal Reading Inventory (IRI) as developed by Betts (1952), McCracken (1967) and others is a refinement of the rule of thumb. However, in its refining, it became for teachers' use exclusively. The IRI is an informal procedure for determining by error count four reading levels. They are: (1) independent, (2) instructional, (3) frustrational, and (4) capacity. The error count is usually made in units of 100 running words. If in basic reading mechanics a reader makes no more than one error in 100 running words and demonstrates 90% comprehension, he is reading at his independent level. From two to five errors and 75% comprehension suggest the instructional level; six or more errors and 50% comprehension indicate the frustrational level. The capacity level is determined by reading to the student until he fails to answer 75% of the comprehension questions correctly.

The IRI focuses on quantity of errors. The Reading Miscue Inventory (RMI) focuses on quality of errors. The Goodmans, the developers of the RMI, prefer not to use the word error to describe reading deviations. Goodman and Burke (1972, p. 5) explain it this way: "Deviations in oral reading are called miscues to suggest that they are not random errors, but, in fact, are cued by the thought and language of the reader in his encounter with the written material." To help evaluate a miscue, Goodman and Burke (1972, pp. 49-50) suggest nine questions to ask about it. They are:

1. Dialect. Is a dialect variation involved in the miscue?
2. Intonation. Is a shift in intonation involved in the miscue?
3. Graphic Similarity. How much does the miscue look like what was expected?
4. Sound Similarity. How much does the miscue sound like what was expected?
5. Grammatical Function. Is the grammatical function of the miscue the same as the grammatical function of the word in the text?
6. Correction. Is the miscue corrected?
7. Grammatical Acceptability. Does the miscue occur in a structure which is grammatically acceptable?
8. Semantic Acceptability. Does the miscue occur in a structure which is semantically acceptable?
9. Meaning Change. Does the miscue result in a change of meaning?

The Cloze technique, developed by Taylor (1956), Rankin (1965), Bormuth, (1965, 1968), and others may be used to teach students to ask questions 3, 4, 5, 7, 8, and 9 in the RMI for each miscue made. The Cloze technique is based on the gestalt idea of closure, which is the impulse to complete a structural whole by supplying a missing element. The reader provides closure by filling in missing words. A Cloze exercise is developed by leaving out every nth word (usually every 5th word) in printed material. Students may become more accurate in providing the exact words omitted if, when considering word choices, they consider the grammatical function and the grammatical and semantic relationships required by the structure of the sentence and content of the paragraph or whole text. Once the choices are made, the pupils may decide how much they look like and sound like the original ones in the text. They may also determine to what degree their choices changed, if any, the intended meanings.

Due to a rather inexpensive technology in the form of cassette recorders, students may apply the synthesized concepts of the above diagnostic techniques to their own reading performances. When a student is analyzing his own reading or helping another student analyze his reading behavior, he will discover that all reading miscues do not have the same value.

The Study

The authors recently conducted a study to determine if students could learn to monitor and evaluate their reading performance. Five fourth and fifth grade students having a reading score indicating achievement within one year below grade level participated in the study. The subjects were taught how to apply Veatch's rule of thumb to discover their instructional and frustrational levels as defined by IRI criteria. They were taught how to analyze their reading performances when functioning at their instructional level. The subjects learned by responding to Cloze exercises how to ask five questions about each miscue made. The questions are listed in the order that subjects mastered them. In parentheses, the week in the study and the percent of mastery are given:

1. Was the miscue corrected?

     yes   no

   (Mastered in the first week being correct 100%)

2. How much does the miscue sound like the word in the book?

     very much   some   not at all

   (Mastered in the third week being correct 100%)

3. How much does the miscue look like the word in the book?

     very much   some   not at all

   (Mastered in the fourth week being correct 100%)

4. Does the miscue do the same kind of job in the sentence as the word in the book?

     noun   verb   adjective   adverb   function word

     yes   no

   (In the sixth week 87% mastery was achieved)

5. Is the meaning of the miscue the same as the word in the book?

     very much   some   not at all

   (In the sixth week 65% of mastery was achieved)

The study lasted six weeks with each subject spending one hour per school day learning how to monitor his or her reading behavior. Within the first two weeks, the subjects had learned how to use the cassette recorder and how to begin analyzing their reading behavior. For each hour in the study, a subject did three things: (1) completed Cloze exercises which stressed the last four of the above questions, (2) recorded reading at his or her instructional level and analyzed miscues made by asking the above five questions, and (3) worked with another student in analyzing both of their reading miscues. Dorothy Randolph was always present to answer any questions asked. Materials were made available so each subject could find his instructional level quickly. Cloze exercises came from materials at the subject's instructional level.

Discussion

The order of and the degree to which each of the five questions asked about each miscue were mastered could have been expected due to findings by other researchers. It is very easy to determine if a miscue was corrected. Since the subjects had learned to use the sound system of English by the time they entered school, it was not too difficult a task to analyze their mispronunciations. According to Gilooly (1970) learning the English writing system progresses more slowly than learning a phonetic system in the early years although the converse becomes true sometimes during the intermediate elementary grades. Thus, the week's difference in time between mastering the sound and graphic analysis tends to support Gillooly's position.

Subjects' failure to completely master syntactic analysis within six weeks supports C. Chomsky's (1970) findings that students' syntactic systems are not fully developed until the age of ten and beyond. Since the subjects were at least one year behind expected reading level, it is reasonable to infer that they would be lagging in developing the maturity essential to fully appreciate syntactic and semantic systems. Subjects mastered least semantic analysis which supports Anglin's (1970) thesis that semantic system is the last to develop. Also, Burke and Goodman (1972) assert that the semantic system and the

syntactic system are related in such an integral way that the semantic system is never learned faster than the syntactic system.

It is reasonable to conclude that students can learn to monitor and evaluate their reading performance. This might encourage the developing of their syntactic and semantic systems expressed through their language.

References

Anglin, Jeremy M. The growth of word meaning. Cambridge, Mass.: M.I.T. Press, 1970.

Betts, E. A. Foundations of reading instruction. New York: American Book Company, 1950.

Bormuth, John R. The cloze readability procedure. Elementary English, April, 1968, 45, 429-36.

Bormuth, John R. Validities of grammatical and semantic classifications of cloze test scores. Proceedings of the International Reading Association, 1965, 10, 283-286.

Chomsky, Carol. Reading, writing, and phonology. Harvard Educational Review, 1970, 40, 287-309.

Gillooly, William B. The influence of writing system characteristics on learning to read. Reading Research Quarterly, 1973, 8, 167-199.

Goodman, Yetta M., Burke, Carolyn L. Reading Miscue Inventory. New York: Macmillan, 1972.

McCraken, Robert A. The Informal Reading Inventory as a means of improving instruction. In The Evaluation of Children's Reading Achievement, T. C. Barrett, editor. Perspectives in Reading 8, 1967, pp. 79-96.

Rankin, E. J., Jr. Cloze procedure - a survey of research. Yearbook of the South West Reading Conference, 1965, 14, 133-148.

Taylor, W. L. Recent development in the use of cloze procedure. Journalism Quarterly, 1956, 33, 42-48.

Veatch, Jeannette. How to teach reading with children's books. New York: Citation Press, 1968.