Assessing students' knowledge of the sequential nature of language and the extent to which they are able to relate one sentence or concept to another (preceding or following) is a task rarely measured by reading tests, despite the fact that such information would help to meet individual reading needs. One instrument which may prove useful toward this end is the cloze test, an informal reading comprehension measurement in which a message is mutilated by deleting certain words and substituting underlined black spaces of constant length. The main thesis of this paper is that cloze analysis of individual student responses on such a test may yield more precise information than current procedures provide for secondary and community college instructors about the strengths and weaknesses of students in specific language skills areas as well as their attitudes toward the subject matter. The paper discusses the use of the cloze test and provides examples and statistics to support the main thesis. (RB)
CLOZE PROCEDURE AND THE AFFECTIVE DOMAIN

Natalie Babcock

Historically, group reading tests or reading sub-tests of achievement batteries commonly selected for use with secondary and college students consist of vocabulary and comprehension sections. Scores generally reflect little more than students' recognition of word meanings, extent of conceptual background, and recall of facts contained within a series of short passages. Assessing the students' knowledge of the sequential nature of language and the extent to which he is able to relate one sentence and/or concept to another (preceding or following) is a task rarely measured despite the fact that such information would enable reading instruction to be more truly individualized. Likewise, an instrument which provides an instructor and/or a counselor with information about a student's attitude towards material or towards cultural mores while at the same time measuring ability to function in a textbook has not been forthcoming.

One instrument which may prove useful is the Cloze test, an informal reading comprehension measurement constructed by the instructor in which a message is mutilated by deleting certain words (recent research sug-
gests every 7th or 9th) and substituting underlined blank spaces of constant length. The term "cloze" comes from the Gestalt concept of "closure," the human tendency to arrive at closure (form complete wholes) by filling in the empty spaces in the structure and was first applied to the technique by Wilson Taylor (1). The student taking the test must "guess" the precise word which was deleted from each space.

The concept underlying the cloze as a test instrument is that the greater the match between the language function, background experience, and interests of the author and the reader, the more accurately the reader will be able to predict the deleted words and, hence, arrive at closure. The extent of his ability to do so signals his degree of comprehension of the printed material.

Cloze tests differ from other completion-type tests in that cloze units are chosen mechanically at regular intervals from a continuous message; responses are, thus, related in such a way that failure to predict accurately a given word may influence subsequent responses. Scores are obtained by counting the number of words correctly supplied and figuring percentages. Averages of these, in turn, may be compared with reading levels. Bormuth (2) suggested that a score of 38% on a Cloze test is the equivalent of a score of 65% on a multiple choice type test and equals frustration reading level; 44% is the equivalent of 75% and equals instructional reading level. A high score of 57% on the Cloze would be compared with 90% on a multiple choice test and would indicate material at the individual's independent reading level.

Administration of a series of Cloze tests constructed from a text should reveal the percentage of students who would find it frustrating. That is, if the average score of 5–7 tests selected from early, middle,
and last passages of the book reveal a percent below 44, the text may be
determined as too difficult for those students so scoring. Conversely,
average scores of 90% would indicate a text too easy for those students.

Rankin (3) has identified the following uses for the Cloze:

1. to measure pre-reading knowledge of the content of an article or book;

2. to measure general reading ability (high correlations between Cloze scores and standardized reading test scores have been reported);

3. to measure structural comprehension (inter-relationships between ideas);

4. to measure lexical comprehension;

5. to measure reading comprehension as an on-going process by administering Cloze tests both prior to and immediately following the reading of an article.

Rankin also suggests that by holding class population reading levels constant and applying several Cloze tests from the same text to students, the readability level of the text, at least within broad parameters, may be determined.

Impressive as these uses may appear, close analysis of individual student responses on Cloze tests or exercises may yield more precise information for secondary and community college instructors in the form of strengths and limitations of students in specific language skills areas as well as their attitude towards the subject matter. Some additional specific reading and language skills identified are the following:

1. knowledge and/or understanding of the technical vocabulary to be found in the material;
2. accuracy of spelling of both technical and non-technical vocabulary;
3. ability to use context clues;
4. knowledge of noun-verb agreement and other accuracies of grammatical sequence or subtleties of language.

It is further suggested here that specific responses used by students to complete cloze units may reveal attitudes because the words themselves may be identified, as Raths (4) would intimate, as positive or negative and, thus, be indicative of a developing value system. This suggestion is in accord with the second and third levels in Taxonomy of Educational Objectives, Affective Domain, by Bloom (5).

Scoring of a Cloze test (see appendix) administered to a class of 23 senior high school students in a social studies room in Costa Mesa, California, reveal this range of scores:

38% or below -- 14 students
44-46% -- 4 students
56% or above -- 5 students

Since this particular test was used as a pre-test (prior to a first reading of the entire selection) one or more of the following assumptions may be valid:

1. for 14 students, the text was too difficult for independent reading;
2. for 14 students, knowledge of the subject was so limited that reading this passage was more difficult than it might have been following instruction in basic concepts of the author;
3. negative or positive attitudes of students towards the subject matter may have interfered with more deliberate and, hence, more ac-
evaluate responses.

Analysis of responses of this particular class provides the following data:

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<th>Misspellings</th>
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<th>arrangement</th>
<th>divorces</th>
<th>enforcement</th>
<th>demonstration</th>
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Of the spelling errors, confusion of affect-effect and of advise-advice accounted for two of the errors.

Lack of Knowledge of Technical Words: Four errors appeared to be caused by lack of knowledge of the word "arrangement." In the cloze unit directly followed by that word, (sentence 16) one student wrote "in," two wrote "long," and one inserted "around."

Failure to Use Context Clues: An error was determined as caused by this skill lack when the word inserted was grammatically correct (noun in the position of a noun, etc.) but when it did not "make sense."

Exclusive of "no response," a total of 39 errors can be attributed to students' inability to determine the correct word by use of context clues.

Accuracies of Grammatical Sequence: 92 responses fell into this category and were made, largely, by those students having the lowest cloze scores. Many of these errors could have been avoided had students reread the preceding or subsequent material and related ideas to each other. On the other hand, carelessness, which may be indicative of student attitude toward the task and not to lack of knowledge, may have been the cause of certain grammatical errors.
Some examples of grammatical errors occurred in sentence 9: "... and, in __some____ Negro ghetto ..."; sentence 7: "In almost any slum there ____ are ____ a vast conspiracy ..." (lack of number agreement). Sentence 11 appeared to be one of the most difficult for students to complete correctly. "A brief experience of a night ___ in ___ a cell made an abstraction personal ___ and ___ immediate." Seven students did not complete the unit; 3 of 23 students correctly supplied the conjunction "and"; 13 students responded with words such as "change," or "feeling," and by doing so indicated that they had interpreted the word "abstraction" as "abstract." Had the sentence read "A brief experience of a night in a cell made an abstract personal ______ immediate," the word "change" would, at least, have been grammatically correct.

Responses which would appear to be indicative of attitude and, thus, lend themselves to values-clarification techniques occur for the most part in seven sentences: numbers 2, 5, 11, 15, 18, and 20. In sentence 2, 6 of 22 responses named such items as "air conditioner," "car," "t.v." and "cadillac"; one response was "bible." (Interestingly enough, the student who so responded revealed other religious-oriented attitudes in several of his units.) Aside from the fact that these students obviously had not related the first deletion (sentence 2) to the preceding sentence in which "family structure" is the subject and the reference for the first cloze unit, it is noteworthy that, despite the fact that they were studying social implications of poverty, students tended to think solely in terms of material possessions.

Similarly, attitudes attributed to the poor regarding law enforcement are revealed in sentence 6 where police are described as those who "hurt" (7); "hassle" (2); "hate" (5) or "harass" (3). Since 17 of 22
responses are considerably more negative than the correct word "arrest," one must wonder if students hold these attitudes themselves towards the police or are, as the passage requires, attributing them to the poor.

Perhaps the most revealing unit occurs in sentence 15. "They did not have money for bail or for lawyers." Of the 20 responses (three students did not attempt this unit), 3 are "bribes" or "bribery." Other insertions included "fines" (3); "bond" (3); "a cell" (1); "charges" (1); "damages" (1). Of the remainder, 7 were correct; the others could be termed "miscellaneous." Values clarification techniques might be used to elicit thinking about moral implications or the social consequences of making and/or accepting bribes. Similar techniques might be used in discussing sentence 20 in which the poor were identified by 50% of these students as a "minority" (1); "crisis" (1); "alien" (2); "problem" (1); and "race" (2).

Finally, this particular selection invited comments from at least two students. One young man read sentence 17 and wrote, in large, firm letters in the margin: "Good!" Another student reading sentence 10 felt compelled to insert, "Abbie Hoffman, probably." It would appear that these students had arrived at some emotional involvement with the topic.

Implications for instruction for this group of students, based upon the available data, are significant. Exercises need to be devised to teach students how to use context clues as well as the importance of the sequential nature of grammar and its relation to meaning. Cloze exercises themselves are useful for this purpose and are easily constructed, administered, and scored.

Alert teachers will discover other needs as revealed by responses of varying groups. Tests may be constructed and scored very quickly; anal-
ysis of errors is more time consuming, but for the instructor who is interested in reaching more students in both areas of attitude formation and reading improvement, probably no other single instrument will prove as useful.
The family structure of the poor, for instance, is different from that of the rest of the society. There are more homes without a father; there are less marriages, more early pregnancies and, if Kinsey's statistical findings can be used, markedly different attitudes toward sex. As a result of this, to take but one consequence of the fact, hundreds of thousands, and perhaps millions, of children in the other America never know stability and "normal" affection. Or perhaps the policeman is an even better example. For the middle class, the police protect property, give directions and help old ladies. For the urban poor, the police are those who arrest you. In almost any slum there is a vast conspiracy against the forces of law and order. If someone approaches asking for a person, no one there will have heard of him, even if he lives next door. The outsider is "cop," bill collector, investigator, and, in the Negro ghetto, most dramatically he is the "Man." While writing this book, I was arrested for participation in a civil rights demonstration. A brief experience of a night in a cell made an abstraction personal and immediate; the city jail is one of the basic institutions of the other America. Almost everyone whom I encountered in the "tank" was poor: skid-row whites, Negroes, Puerto Ricans. Their poverty was an incitement to arrest in the first place.
will be much more careful with the well-dressed, obviously educated man who might have political connections than he will
with someone who is poor. (15) They did not have
money for bail or for lawyers. (16) And, perhaps, most important, they waited their arraignment with stolidity, in a mood
of passive acceptance. (17) They expected the worst, and they probably got it.

(18) There is, in short, a language of the poor,
a psychology of the poor, a world view of the poor.

(19) To be impoverished is to be an eternal alien, to
grow up in a culture that is radically different from the
one that dominates the society. (20) The poor can be described
statistically; they can be analyzed as a group. (21) But they
need a novelist as well as a sociologist if we are to
see them. (22) They need an American Dickens to record the
smell and texture and quality of their lives. (23) The cycles and
trends, the massive forces, must be seen as affecting persons who talk
and think differently.

*Source Unknown*


