

THE CONSTRUCTION AND VALIDATION OF  
A READING ATTITUDINAL SCALE  
FOR YOUNG ADULTS

By

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## CHAPTER I

### PRESENTATION OF PROBLEM

#### Introduction

Secondary teachers, college instructors, and educational administrators must give increased concern to the reading needs of young adults. With the onset of competency based testing, school systems have added responsibilities apart from teaching; schools and institutions of higher education have the responsibility for student learning. Since the late 1960's and the early 1970's, there has been a great deal of publicity generated about the supposed educational deficiencies of the adult and adolescent population in the United States. Much of the publicity centered around the need for educational programs which would provide all students with the skills they need in preparation for living in a dynamic society.

Earlier, the ability of college students to read college level material was more or less taken for granted. Students with significant reading problems either were not on the campus to begin with or did not remain very long. However, since the adoption of open admission policies by many colleges and universities throughout the United States, the situation has changed. Students with eighth grade reading levels are almost commonplace on college campuses. With regard to

college reading improvement courses, the question is no longer whether they should exist, but what particular form and thrust they should take.

One of the most important steps teachers can take in assisting young adults in becoming proficient readers is to make careful assessments of the learner's reading ability and reading interest, and to provide the student with appropriate reading materials to match his or her ability and interest. Presently, many school systems require a "core curriculum" which locks students into meaningless courses before they take courses that are personally gratifying to them. This type of curriculum engineering tends to ignore the individuality of the learner and lessen productivity for all who are concerned.

Aside from the question of whether students can read, rests another question of equal consequence--will students read? How students feel about reading is as important as whether they are able to read; the value of reading ability lies in its use rather than its possession.

Skill instruction should always be developed within the context of helping the student to generate meaning from selections. Students should be encouraged to develop their own purposes for reading. A personal purpose for reading helps the student find a connection between something in his mind and something in the reading material. One way of avoiding or minimizing hazards in reading instruction is to be sure that each skill area examined is, and can be shown to be related to the real world activities of the young adult reader. Student purpose setting promotes active reading--reading that is focused on



seeking meaning rather than calling words. The meaning the student gets is largely related to his attitude toward the passage under discussion and his purpose for reading the selection.

Most educators involved in teaching reading to young adults realize that procedures used in teaching children, although frequently used with adults, do not serve the best interest of the adult student. If the methods, materials, and approaches used in instruction reflect the characteristics and needs that make the adult different, adults will not only learn more, but will also realize greater satisfaction in learning. Newton (1977) lists assumptions about characteristics and learning styles of the adult learner. These assumptions are given here as a reminder to educators who have difficulty drawing distinction between pedagogy and andragogy (adult literacy instruction).

1. The heart of adulthood is independence and self-direction. Any adult education situation involving the student in a role of dependency, captivity, and unquestioning compliance will generate immediate and deep resistance and resentment.
2. The mature individual is a veritable storehouse of codified experiences which are the essence of his central identity. The adult is a rich source for learning because of the widely varying uniqueness of his experiences. Thus learning strategies which utilize his potential for input, rather than learning activities which are didactic, will be most productive.
3. The adult's readiness for learning is inherent in his societal role as worker, parent, spouse, and student. Since need is basic to wanting and readiness, the requirements and demands of the adult's present situation and aspiring roles in real life must dominate and supersede all other considerations in andragogy.
4. The adult's orientation to learning is here and now and problem centered. Immediate application of new coping skills largely motivates the adult to continue in an educational experience. (pp. 3-5)

Teachers of young adult students need a diagnostic instrument which will aid in the development of the total picture of the learner's

reading ability. This instrument should assess the learner's attitude toward reading in an effort to maximize and personalize instruction. For, just as adults have varied experiences and abilities, their attitudes toward a psychological object (reading) will be varied and distinct, and it is the educators' responsibility "to tap" those avenues which will foster the greatest potential for success in fulfilling the goals the learner has set for him or herself.

#### Need for the Study

In a study commissioned by the National Reading Council (Harris and Associates, 1970) it was ascertained that there were over eighteen million illiterate adults in the United States. In several other studies conducted by the National Assessment of Education Progress (1975, 1976) it was found that approximately 11% of the seventeen year olds currently enrolled in high school could be labeled functionally illiterate. The United States Office of Education (1972) reports that 21,000,000 Americans over 16 lack basic reading skills to deal with even the most simple experiences in modern life. The report further stated that nearly half of all high school students with reading difficulties never receive help in school, and even among students who go to junior college, between a third and half require remedial instruction in reading.

A review of the literature indicates that reading disorders rank high on the list of academic deficiencies manifested by adolescent and mature students, and that comprehension problems affect more adult students than any other reading disability. Hard data to describe the disabled adult reader is limited. This study plans to construct and

validate an attitude scale to be used by secondary and college teachers in diagnostic evaluations of adolescent and adult readers.

#### Purpose of the Study

The purpose of this study is to construct and validate an attitude scale which will identify students' attitudes toward general, academic, and vocational reading materials. The instrument will be used to determine if there is a significant relationship between students' measured attitude toward reading material, stated attitudes toward reading material, and actual selection of reading material representative of stated attitude toward reading.

#### Statement of Problem

This study is designed to investigate relationships between attitude assessment when differentiated attitude scales are utilized to assess the relationship between learner's stated and actual attitude toward reading material.

#### Hypotheses

This study is designed to test the following hypotheses:

Hypothesis I: There is no significant relationship between measured attitude toward general, academic, and vocational reading material.

Hypothesis II: There is no significant relationship between measured attitude toward general, academic, and vocational reading material and the actual selection of general, academic, and vocational type reading materials.

Hypothesis III: There is no significant relationship between stated attitude toward general, academic, and vocational reading material and actual selection of general, academic, and vocational type materials.

#### Definition of Terms

The following are definitions of terms as they are used throughout this study:

Attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with certain stimuli (Oppenheim, 1966).

Measured Attitude toward reading is attitude preference for general, academic, or vocational reading material as measured by attitude items.

Stated Attitude is response to attitude question of preference for general, academic, or vocational reading.

Attitude toward General Reading: preference for reading which enhances personal growth and self-fulfillment; romantic purpose for reading.

Attitude toward Academic Reading: preference for reading which has as its purpose the acquisition of knowledge about content area, correct language usage, and understanding grammar; cultural-transmission-academic purpose for reading.

Attitude toward Vocational Reading: preference for reading which has as its goal the preparation of readers for the world of work; readings directly related to applying for and maintaining a job; cultural-transmission-utilitarian purpose for reading.

### Assumptions

For the purpose of this study, it was assumed that attitude toward reading could be broken down into three distinct categories based on behavior characteristics of the learner.

### Limitations of the Study

This study is limited by the population which is representative of students in a college reading improvement course at a major university. Though the sample included a wide range of students from varying socioeconomic levels, their presence in a reading improvement course indicates a need or deficiency in reading.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

Karlin (1973) described a good reading program as one which develops the basic skills students need in order to read; that teaches them how they can use reading as a tool for learning; that fosters an appreciation for literature, and that develops interests in reading for enjoyment. The initial step taken by teachers to aid them in making judgements about students and their reading program is diagnosis and evaluation; however, what is discovered in a typical diagnosis as being areas of weakness are not necessarily the proper areas in which remediation should focus. When adolescent and mature readers are considered in the diagnostic process, the results of the evaluation may reveal that the student may not be able to do something that many good readers of the same age cannot also do. This may result from using tests primarily designed for younger subjects or ones that tap skills no longer used by the reader; the skill assessed may have been examined in isolation, and had it been examined in context, it might have been found intact. Furthermore, trivial areas of deficiencies might have been examined, and to remediate these might be to devote time to a peripheral not a central skill.

One method of minimizing hazards to diagnostic evaluations concerning the mature reader is to include in the diagnostic battery a measure of the learner's interest and attitude toward reading. An instrument which would yield valid and reliable results of a student's attitude toward reading should prove to be a valuable tool in the decision-making process of the teacher concerning the student.

#### Related Research

Zirkel and Greene (1976) published a review of the literature pertaining to the measurement of attitudes toward reading. In their presentation three attitudes toward reading were addressed: theoretical context, available types of instrumentation, and alternative approaches to attitude meaning.

Two important variables in attitude toward reading are self-concept and motivation. A study undertaken by Leeds (1971) presents a comprehensive review of research relating to self-concept in education. Williams (1971) identified a split among dissertations in the late sixties and early seventies concerning the relationship between self-concept and reading. Glock (1972) and Lewis (1972) added further doubt to the existence of a relationship between self-concept and reading in the early grades; however, Williams further indicated the weight of research supports the existence of such a relationship in the intermediate grades, with a possible high point at grade four. If, in fact, students have developed negative attitudes regarding their perceptions of themselves as they relate to reading by grade four, it would seem logical that the reading programs in the intermediate grades would

focus on changing attitudes and methods to promote positive feeling about self and reading.

The area of motivation, as Hake's (1969) study illustrates, is an appropriate bridge between the broad theoretical context and the specific instrumentation issues. Educators are quick to point out that students' attitudes toward the content of a reading selection influence the time students spend with the selection and their comprehension of it (Mathewson, 1979). The effects of attitude upon comprehension have not been studied closely in the literature. Two studies, one by Bernstein (1955) and another by Shnayer (1969) appear to show a clear effect of favorable attitude toward the content of reading selections upon comprehension of those selections. Mathewson (1976) indicated that if reading is determined by attitude toward content and relevant motives separately, it can be reasoned that there could be circumstances in which motive to read might sustain reading comprehension even in the absence of a favorable attitude toward content. For instance, a student may be prompted to read and comprehend a selection he or she dislikes if he or she believes that a reward will follow. Similarly, a person motivated by test anxiety might read a chapter to pass a course even though he dislikes what he is reading. In cases like these, it would appear that attitude toward content is unrelated to comprehension.

On the other hand, it might be expected that attitude toward content would be related closely to comprehension if the primary energizers of reading are such motives as curiosity (Maw and Maw, 1967) or the need for self-actualization. For these motives, favorable attitude toward content of reading selection would be expected to



develop as the reader begins to experience motive fulfillment. This favorable attitude would spur reading comprehension. Alternatively, nonfulfillment of the motives would lead to unfavorable attitude toward content, slowing or ending the comprehension process. Thus, attitude and level of comprehension might be expected to vary together since motive to read, attitude toward content, and comprehension would be interconnected causally.

Self-report and direct observation are the two basic techniques employed by attitude researchers. Cook and Selltiz (1964) found that instrumentation of most current research on attitude can be grouped in five major categories and are summarized below: (1) measures in which the material from which inferences are drawn consists of self-reports of beliefs, feelings, behaviors, toward an object or class of object; (2) measures in which inferences are drawn from observed overt behavior toward an object; (3) measures in which inferences are drawn from the individual's reaction to, or interpretation of, partially structured material relevant to the object; (4) measures in which inferences are drawn from performance on objective tasks where functioning may be influenced by disposition toward the object; and (5) measures in which inferences are drawn from physiological reactions to the object.

Cook and Selltiz (1964) further state that self-reports of beliefs, feelings, and behaviors are by far the most frequently used method of securing material from which to make inferences about an attitudinal object. Information about the individual is secured by having him or her reveal, either in his or her own words or through acceptance or rejection of standardized items, his or her beliefs about the attitudinal object. The basis of inferences is clear; it is

axiomatic in all definitions that an individual's attitude toward an object is indicated by his beliefs, feelings, and action orientation toward it. The nature of the inference is also clear; it is assumed that the relationship between attitude and expression is a direct one and that attitude corresponds to the manifest, common-sense implication of the stated belief or feeling.

Self-report measures have a number of characteristics that make them susceptible to distortion of overt responses. The purpose of the instrument is obvious to the respondent; the implications of the respondents' answers are apparent to them; the student can consciously control his responses. This difficulty has long been recognized, and in recent years it has been extensively investigated and associated with "social desirability traits." Two of the simplest approaches to making the purpose of the instrument less apparent are to include items not relevant to the attitudinal object in which the investigator is interested or to make it easier to give responses that may be considered undesirable by building into the measure an assurance of anonymity, statements to the effect that "there are no right or wrong answers or that people differ in their views on these things," emphasis on the importance of honest answers in order to contribute to scientific knowledge or some other presumably desirable outcome.

There has been less extensive development of measures in which inference are drawn from observation of overt behavior than self-report. Situations capable of eliciting behavior toward an attitudinal object are more difficult to devise and to standardize, and more time-consuming and costly to administer, than the self-report measure. Attempts to

develop behavioral measures have followed three general lines: (1) to present subjects with standardized situations that are believed to be unstaged; (2) to present subjects with an admittedly staged situation and ask them to play a role; and (3) present sociometric choices among individuals some of whom are members of the object group under consideration to determine attitudes toward groups.

Measures in which inferences are drawn from the individual's reaction to or interpretation of partially structured tasks are based on the assumption that perception of stimuli that are not clearly structured is influenced by the perceiver's own needs and dispositions. Measures in which inferences are drawn from performance on objective tasks present the respondents with specific tasks to be performed; they are presented as tasks of information or ability, or simply as jobs that need to be done. The assumption common to all of them is that performance may be influenced by attitudes, and that a systematic bias in performance reflects the influence of attitude.

Measures in which references are drawn from physiological reactions to the attitudinal object or representation of it are at the opposite extreme from measures relying on physiological responses not subject to conscious control. The measure may involve responses, such as salivation, blinking, vascular constriction. In the case of unconditional physiological responses to the presence or the representation of the attitudinal object, the basis for reference comes directly from the concept of the attitude. It is assumed that the magnitude of the physiological reaction is directly and positively related to the extent of arousal or the intensity of feeling; thus, the greater the

physiological response, the stronger and/or more extreme the attitude is presumed to be.

The topic of reading interest is not a new one. Much of the research with children prior to the 1970's reported interest in terms of sex preference. Boynton (1936) and Tyler (1951) reported that differing interests were exhibited by boys and girls as early as age six. Jersild and Tasch (1949) indicated that children's interests to a large degree were learned. Those findings also indicate a decline in interests in things having to do with school as the children progress in grade levels. Goldensen (1970) indicated that the child's interests are consistently described in the literature as unique, individual, but also environmentally and developmentally influenced.

The two major procedures in reading interest research have been (a) direct observation and (b) unobtrusive measures of pupils' interests. Although these procedures represent the most often used procedures historically, these methods are seldom discussed or recommended as interest assessment material for classroom teachers.

The 1940's and 1950's included significant research in reading interests of students of the secondary level as well as adults. Norvell (1950) in his research with secondary students criticized the tendency of adults to impose their standards, their likes and dislikes on children and adolescents. Norvell (1973) hoped to make interest assessment more practical for the classroom teacher as well as to add research findings about secondary students.

In an effort to aid teachers in getting at the experiences and feelings associated with reading behavior and interest, the development of an attitudinal scale seems of the utmost importance. Although

many reputable standardized tests of skills development in reading exist, very little has been done in the development of equally valid and reliable measures of reading attitude, particularly at the secondary level. The early sixties and seventies saw the development of several attitudinal measures: Askov, 1969; Heimberger, 1970; San Diego, 1961; and the Estes Scales, 1971. The Estes Scales unlike most of the earlier attitudinal measures dealing with reading, was initially developed with a research population extending through twelfth grade.

Rhody and Alexander (1980) devised an attitudinal scale for secondary students based on the criteria from Heathington (1975). Heathington described the function of an attitude scale as one which should require no reading on the part of the subjects; be designed to be used early in the school year; require minimal time for administration and scoring; be reliable and valid; and contain items truly representative of students' feelings toward reading. Rhody and Alexander found that their instrument was useful in assessing change in attitudes as well as an aid to classroom teachers in understanding students' feelings toward areas of the reading environment. The statements on the scale were grouped into clusters. The clusters were determined during interview situations and were grouped as school related reading, reading in the library, reading at home, recreational reading, and general reading. It was felt by the researchers that data organized by clusters can aid the classroom teachers in creating more appropriate reading environments. For example, a teacher might compare a given student's attitude on the items concerning school related reading with the student's attitude toward other readings, thereby providing the best possible situation for the student.

The construction of any attitudinal scale requires many hours of preparation and study, and knowledge of what constitutes an attitude scale. Oppenheim (1966) described the function of an attitudinal scale as an avenue to elicit a particular communication between respondent and stimuli concerning a particular psychological object.

Edwards (1957) viewed the development of an attitude scale as a form of data collection for the purpose of describing or predicting, as a guide to action or for the purpose of analyzing the relationship between certain variables.

Once a set of attitude statements has been collected, there are two general methods involved in the development of attitude scales. Edwards (1957) describes the two methods involved in attitude scale development. One of these methods involves the use of a judging group. The judging group is not asked to respond to the statements in terms of their own agreement or disagreement with them, but rather to judge the degree of favorableness or unfavorableness expressed by each statement. These judgements are then used as a basis for determining scale values of the statements upon a psychological continuum.

A second method of developing attitude scales is based upon direct responses of agreement or disagreement with attitude statements. Since the response method does not require prior knowledge of the scale values of the statement in any exact sense, a judging group is not necessary. It is sufficient for the response method if one can assume that the response "agree to a statement" indicates a more favorable attitude than the response "disagree" or vice versa. The response methods for constructing attitude scales include the method of summated ratings and scalogram analysis.

Ratings can be used in various ways: (a) as objective assessments; (b) in a subjective, predictive way, to tell something about the rater; and (c) as self-ratings of a personality trait or attribute. Likert's (1932) scaling technique requires a large number of items, having the characteristics that the more favorable the individual's attitude toward the attitude object, the higher his expected score for the item. These items are then given to a sample of the target population, and respondents indicate their reaction to the items by means of five-category rating system: categories are scored by assigning values of 5, 4, 3, 2, and 1, respectively. This scoring is reversed for negatively worded items. Item scores that are correlated highly with the total scale are then selected for the final scale. Another method of discriminating items is the critical ratio based upon the means and variances of the upper and lower 25 percent of the distribution of total scores.

Green (1954) explained how the "intercorrelations of the items are assumed to be due to a simple common factor to which all items are mutually related." The item score is assumed to be the weighted sum of this common factor and a factor specific to the item. The common factor is considered error. There is justification for this scoring procedure since the linear correlation of the total score with the general attitude factor approaches unity as the number of items increases.

Shaw and Wright (1967) indicated that the Likert procedure yields moderately reliable scales, but validity depends upon the particular scale under consideration. No attempt is made to ensure equality of units. Unidimensionality is sometimes inferred from high correlations

with total score, but this is not necessarily so. The high correlation could result from two or more equally potent factors. The "undecided" category is often considered as a zero or neutral point of an item, and the zero point of a scale might be taken as the attitude score corresponding to the score that would be obtained if an individual checked "undecided" for every item in the scales. This interpretation is ambiguous, since such a score could be achieved by checking "agree" for half of the items and "disagree" for the other half, or through some similar combination of agree-disagree responses.

The Likert-type scales are, therefore, often reliable and valid, but they should be treated as ordinal scales (Shaw and Wright, 1967).

It is important to remember that the interpretation of Likert's scores is based upon the distribution of sample scores; a score has meaning only in relation to scores earned by others in the sample. The scale should always be standardized on a sample from the target population.

After evaluating the attitude scale, consideration should be given to the purpose for which reading and language activities are conducted. One way of looking at these purposes might be to categorize them under the headings romantic, cultural transmission, and cognitive-developmental. These terms were taken from Kohlberg and Mayer (1972), who present a framework for examining educational ideologies. Walmsley (1978) described a romantic purpose for reading as reading to enhance personal growth and self-fulfillment; a cultural transmission purpose for reading (two branches--academic and utilitarian) as reading to gain those skills and knowledges deemed important by previous



generations for succeeding generations to acquire; a cognitive-developmental purpose for reading as reading to enhance intellectual growth.

In a reading program utilizing the romantic approach to remedial reading for adolescents and adults, it is very important to have a supportive and unpressured reading environment, preferably in a reading resource area of a room. Student participation should be as voluntary as possible. Fader and McNeil (1966), Riggs (1971) and Purves and Beach (1972) describe the use of bibliotherapy in the romantic setting. The language experience approach to reading is also appropriate in this setting. Rosenblatt (1976) and Holland (1975) provide a full description of the use of the romantic approach.

Cultural transmission-academic purpose for reading is reading for the acquisition of knowledge about content-related matters--literature, correct language usage, and understanding of grammar. It is assumed the learner is pursuing an academically-oriented career, reading problems need to be interpreted from this perspective. The cultural transmission-utilitarian approach has as its goal the preparation of students for the world of work. The instructional approach is to help students read materials directly related to applying for or maintaining a job, and to assist them in reading tasks deemed necessary for coping with societal demands. Northcutt (1975) and Sticht (1975) offer suggestions for preparing a curriculum and methodologies employing the utilitarian purpose of reading suitable for adolescent readers.

The cognitive-developmental purpose for reading emphasizes not the acquisition of skills, but rather the development of growth in mental facility. The emphasis here is mainly growth in problem-solving

abilities. It stresses the importance of accumulating reading and language experiences which may then be brought to bear on problems to be solved. A useful framework for this purpose may be found in Smith (1975).

Few studies have dealt with the observed or reported behaviors of adolescent readers. Smith (1964); Purves and Rippere (1968); Jacobson (1973); and Cooper and Petrosky (1976) have done research in this area, but their work did not focus on students needing the most help--remedial readers. Cooper and Petrosky identified strategies of fluent readers (see Appendix) and discussed several behaviors characteristic of good readers and recommended teaching procedures to reinforce these behaviors in secondary reading programs.

In Ngandu's 1976 study, the researcher examined the reading behaviors of remedial high school sophomores. Rather than presenting a theoretical statement of what these students should have done while reading, the study reported the students' actual reading behaviors. Using a retrospective interviewing technique recommended by Strang (1968), the researcher tape recorded discussions with each remedial sophomore after the student read a selection. These tapes recorded the behaviors individuals said they used while reading. Each subject was interviewed twelve times during the four month period. At the end of the semester the tapes were analyzed by reading teachers and university staff to determine a system of classification. The statements were later categorized and individual behavior profiles identified (see Appendix).

The findings based on the students' profiles and the behavior classification outline led to the following conclusions: (1) remedial

readers use a wide variety of behaviors as they read; (2) poor readers could recognize personally effective as well as ineffective reading behaviors; (3) most students who read the same selection did different, rather than similar things; (A note should be injected here--individuals' reactions seemed dependent on several factors including previous experience, content of the selection, student's mood, and interest in material.) (4) when a student's number and diversity of behaviors increased, comprehension of specific selection being read also increased; (5) students comprehended stories better than factual articles; (6) the interest level of the selections seemed to affect students' choices of reading behaviors. Motivation provided by interesting material usually led to the use of appropriate behavior.

#### Summary

When measuring phenomena that are inaccessible to direct observation, it is helpful to conceptualize the measurement process as consisting of three components: (a) identification of behavioral specimens that are acceptable as a basis for making inferences about the underlying concept; (b) collection of behavioral specimens, and (c) treatment of the behavioral specimens so as to convert them into a quantitative variable. What is acceptable as a basis for inference inevitably turns upon what is meant by attitude. Cook and Sellitz (1964) prefer to think of attitude as an underlying disposition which enters, along with other influences, into the determination of a variety of behaviors toward an object or class of objects, including statements of beliefs and feelings about the object and approach-avoidance action with respect to it.

There are two major techniques of attitude scale construction-- self-report and direct observation. Verbal self-report measures as exemplified by Estes (1971), Askov (1969), Heimberger (1970), San Diego (1961) and Rhody and Alexander (1980) appear to have practical utility over measures of physiological reactions to the attitude object.

Behavior characteristics of good and poor readers as presented by Smith (1964), Purves and Rippere (1968), Jacobson (1973), Ngandu (1976) may serve as specimen items for attitude statements.

## CHAPTER III

### METHOD AND PROCEDURE

#### Sample and Population

The subjects for this study were 180 students enrolled in a reading improvement course during the spring semester, 1980, at Oklahoma State University, Stillwater, Oklahoma. The subjects were taken from a total population of 200 students enrolled in nine sections of the course. Six of the nine sections met for one hour Monday, Wednesday, and Friday with two instructors. The two instructors taught three classes each between the hours of eight-thirty and one-thirty. The other three courses were taught by one instructor for one hour and a half twice a week on Tuesday and Thursday between the hours of nine o'clock and twelve-thirty.

There were 111 male participants in the study and 69 female participants. The number of students by classification were as follows: freshmen, 92; sophomores, 50; juniors, 21; and seniors, 17. The age range of subjects was 17 to 33. Non-whites constituted 15 percent or 27 students.

#### Testing Procedure

The following tests were administered between the dates of April 1, 1980 and May 2, 1980:

1. Moore Reading Attitude Scale (MRAS), experimental form (1980)
2. Reading Selections: three selections representative of reading preferences.

### Instrumentation

#### The Moore Reading Attitude Scale (1980)

This test was designed to test students' attitudes toward reading through identification of behaviors fluent and poor readers exhibit while reading. Studies by Ngandu (1976) and Cooper and Petrosky (1976) were the basic source of information for specimen items for the scale. The behaviors described by the previously stated researchers were viewed by this writer as representing three basic reading types as described by Walmsley (1978) as purposes for reading. The three types of readings identified were: General Reading, Academic Reading, and Vocational Reading.

One essential characteristic of a measuring instrument is that it should fulfill the purposes for which it was designed. In so far as an instrument does this, it can be said to be a valid instrument. In order to establish how well an instrument does what it is designed to do, certain formal techniques have become established. Traditionally the purposes for which measuring instruments have been designed are: (1) to establish a formal relationship between scores on the attitude measure and some criterion which the measure is trying to predict (predictive validity); (2) to insure adequate coverage of relevant content areas, so that an individual's performance on the measure is representative of his behavior in the attitude area which is being

sampled (content validity); (3) to establish the value of a person's attitude (construct validity).

The major purpose of a measuring instrument lies in its application to empirical data, predictive, content, and construct validity. These factors should be considered when developing an attitudinal scale. Lemon (1973) states that it would seem logical to assume that a measurement procedure which has been validated as a measure of a person's attitude should also predict his behavior in a specific situation. There is no logical reason from the technique of validation which would lead to this conclusion. To ask that a procedure which has been validated by a method of construct validity should also be valid on a criterion of predictive validity would be to deny the essential difference between the two types of validity.

The initial steps taken in the construction of the Moore Reading Attitude Scale were to determine the type of scale to be used and to identify specimen items which would discriminate between behaviors of good and poor readers, in order to group them into clusters as described by Rhody and Alexander (1980).

In order to determine which type scale construction (Likert or Thurstone) to use in the construction of the Moore Reading Attitude Scale, a comparison of the Likert and Thurstone methods of scale construction was made. Edwards and Kenny (1946) summarized a comparison of the Likert and Thurstone methods as follows:

Scales constructed by the Likert method will yield higher reliability coefficients with fewer items than scales constructed by the Thurstone method. Evidence seems to indicate that the Likert technique is less time-consuming and less laborious than the Thurstone technique. Likert selected items tend to be those which would fall at one or the

other extreme on the Thurstone continuum, if scaled according to the Thurstone technique. The important problem is whether scores obtained from the two differently constructed scales are comparable and the evidence at hand indicates that they are. (pp. 82-83)

A Likert-type scale construction technique was used for the development of the Moore Reading Attitude Scale.

The clusters were predetermined as general reading, academic reading, and vocational reading. One hundred attitude statements were developed and given to a team of five reading specialists for classification into one of the three clusters (general, academic, or vocational) which would elicit students' feelings about reading in those areas. To aid the reading specialists in making their judgements about the statements, an operational definition was given for each reading type: General reading, characteristics common to most types of reading--readings which enhance personal growth and self-fulfillment; Academic reading, acquisition of knowledge about content areas, correct language usage, and understanding grammar; Vocational reading, readings which have as their goal the preparation of readers for the world of work--readings directly related to applying for and maintaining a job. These terms were taken from Walmsley's definitions of purpose for reading.

In November of 1979, the 100 item scale was administered to 137 students enrolled in a college reading improvement classes. The major purpose of this administration of the scale was to test the time of administration and the ability of the scale to discriminate between favorable and unfavorable attitudes toward reading.

The scale was revised and ready for administration in February. The final scale consisted of 80 items: 54 general reading items;



15 academic reading items; and 11 vocational reading items. All items were randomly assigned to appear on the various pages of the scale.

One addition to the revised scale which was not part of the original scale was the inclusion of a statement which asked students to tell which type of reading they preferred, general, academic, or vocational. A score of five was most positive response for all statements. Item 20 was a repeat of item 10 and served as a check on consistency in responding. Coefficient alpha, a generalization of Kuder and Richardson's KR20 formula was used to arrive at reliability coefficients for the scale. The reliability for the subtests were: general reading .81, academic reading .74, and vocational reading .85.

#### Reading Selections

The reading selections used in the study were selected from a group of 12 selections ranging in readability level from seven to 14 (Fry formula). The 12 selections were given to seven reading specialists to identify according to type of selection (general, academic, vocational) and reading appeal. All titles and bold type were removed from each selection. The reading specialists were asked to identify by definition, three selections of each type of reading and number them (one through three) according to appeal and interest. The final three reading selections were arrived at through high consensus of type and appeal agreement.

The purpose of the selections was to see if students' measured attitude toward reading material was consistent with stated attitude and actual task performance. The selections were numbered 1-3; 1 represented general reading, 2 represented academic reading, and 3

represented vocational reading. The selection numbers were reversed in order for every three sets for a total of twenty-five sets of three (e.g. 1 2 3; 2 3 1; 3 1 2).

Students were asked to quickly preview the three reading selections and indicate the one they liked best by writing the number of it in the blank on the answer sheet. Students were also asked to write a brief statement of why they made a particular selection, as well as indicate the number of the selection they liked least.

#### Statistical Analysis

The statistical technique employed to determine the reliability coefficients of the individual scales (general, academic, and vocational) was Coefficient Alpha ( $\alpha$ ) by Cronbach (1951). Coefficient Alpha is a general formula ( $\alpha$ ) of which a special case is the Kuder-Richardson coefficient of equivalence which has been shown to be the mean of all split-half coefficients resulting from different splitting of a test. Alpha is therefore an estimate of the correlation between two random samples of items from a universe of items like those in the test. Alpha estimates, and is a lower bound to, the proportion of test variance attributable to common factors among the items. That is, it is an index of common factor concentration. This index serves purposes claimed for indices of homogeneity. Alpha may be applied by a modified technique to determine the common factor concentration among a battery of subtests. The Coefficient Alpha formula is written below:

$$\alpha = \frac{n}{n - 1} \left[ 1 - \frac{\sum_i \sigma_{y_i}^2}{\sigma_X^2} \right]$$

Where:  $\alpha$  = reliability coefficient  
 $n$  = the number of dichotomous items  
 $\sum \sigma^2$  = the sum of variances of the items  
 $\sigma_X^2$  = variance of the total scale

Two-way chi squares were used to determine the relationship between measured attitude toward reading material and actual selection of reading material representing that type of reading material. Other two-way chi squares were used to test the relationship between stated attitude toward reading material and measured attitude toward reading material, as well as the relationship between actual selection of reading material and indicated attitude toward reading. The formula used in the computation of the chi square values is:

$$\chi^2 = \frac{N (|BC - AD| - N/2)^2}{(A+B) (C+D) (A+C) (B+D)}$$

Where:  $N$  = the number of cases  
 $A, B, C, D$  = the observed frequencies for each of the four cells of the 2 X 2 matrix

#### Procedure for Data Collection

During the second week of April the scale was administered to all students who were present in their reading improvement classes. One hundred-ninety-three (193) of the 200 students were administered the scale. Thirteen (13) of the 193 either marked their responses incorrectly, (4), responded to all items in the neutral position, (4), or arrived for class too late to participate in the administration of the scales, (5). The scale was administered in a group setting. The directions were read orally by this researcher while the subjects read silently. Questions were entertained after the directions were read and during the test for clarification purposes. No time limit was

given for completion of the scale. All subjects in all classes completed the scale within fifteen minutes.

Negative attitudes toward reading material were considered scores of 1 or 2 on any single item. Positive attitudes toward reading material were considered scores of 4 or 5 on any single item. Three was considered a neutral position and no score was given to it.

The second phase of testing began two weeks later. All subjects in the reading improvement class were given three reading selections and asked to read them briefly to identify the one they liked best, as well as the one they liked least. The subjects were to identify the selection they preferred by definition. An answer sheet was provided for this purpose. Students wrote the number of the most preferred and least preferred selection on the appropriate line of the answer sheet. Definitions of general, academic, and vocational attitudes toward reading material were provided on the answer sheet. Subjects were to match the selection most preferred with one of the definitions of attitudes toward reading. Subjects who had not participated in the first phase of the data collection process were not participants in the second phase.

#### Summary

The purpose of this study was to construct and validate a reading attitude scale for young adults. Chi square statistical technique was used to determine the correlation between measured attitude as indicated by an attitude scale with stated attitude toward reading material and actual selection of reading material. Significant relationships were established between measured attitude toward reading material and

stated attitude toward general, academic, and vocational reading material. Significant relationships between actual selection of reading material representing general, academic, and vocational type reading material and measured attitude toward general, academic, and vocational type were also established.

There was no significant relationship between stated attitude toward reading material and actual selection of that type of material.

## CHAPTER IV

### ANALYSIS OF THE DATA

The purpose of this study was to construct and validate a reading attitude scale for young adults. To determine if the reading preference indicated by the scale correlates with the stated attitude toward reading material and actual selection of reading material, the Chi square statistical technique was used.

#### Results Related to Hypothesis I

Hypothesis I. There is no significant relationship between measured attitude toward general, academic, and vocational reading material and stated attitude toward general, academic, and vocational reading material.

A significant relationship exists between measured attitude toward general reading material and stated attitude toward general reading material. The results of this relationship are reported in Table I.

Hypothesis I is rejected for the relationship between measured attitude toward general reading material and stated attitude toward general reading material. To test the relationship between measured attitude toward academic reading material and stated attitude toward

academic reading, a two-way chi square was also used. Table II describes this relationship.

TABLE I

THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
GENERAL READING MATERIAL AND STATED ATTITUDE  
TOWARD GENERAL READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Measured Attitude	143	15
	6	16
	$\chi^2 = 49, p < .05$	

TABLE II

THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
ACADEMIC READING MATERIAL AND STATED ATTITUDE  
TOWARD ACADEMIC READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Measured Attitude	19	135
	15	11
	$\chi^2 = 27, p < .05$	

Hypothesis I is rejected for the relationship between measured attitude toward academic reading material and stated attitude toward academic reading material. The results of the two-way chi square for measured attitude toward vocational reading material and stated attitude toward vocational reading material is found in Table III.

TABLE III

THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
VOCATIONAL READING MATERIAL AND STATED ATTITUDE  
TOWARD VOCATIONAL READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Measured Attitude	18	12
	14	136
	$\chi^2 = 40, p < .05$	

Hypothesis I is rejected for the relationship between measured attitude toward vocational reading material and stated attitude toward vocational reading material.

Hypothesis II: There is no significant relationship between measured attitude toward general, academic, and vocational reading material and actual selection



of general, academic, and vocational type material when given a choice of material to read.

Two-way chi squares were used to test the relationship between measured attitude toward general, academic, and vocational reading material and actual selection of that type of reading material when given a choice of material to read. The relationship between measured attitude toward general reading material and actual selection of that type of reading material is presented in Table IV.

TABLE IV  
THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
GENERAL READING MATERIAL AND ACTUAL SELECTION  
OF GENERAL READING MATERIAL

	Preferred	Not Preferred
	Measured Attitude	
Actual Selection	99	15
	44	22

$\chi^2 = 9, p < .05$

The relationship between measured attitude toward general reading material and actual selection of that type of reading material is a significant one. Hypothesis II is rejected for measured attitude

toward general reading material and actual selection of that type of material.

The relationship between measured attitude toward academic reading material and actual selection of academic reading material is presented in Table V.

TABLE V  
THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
ACADEMIC READING MATERIAL AND ACTUAL SELECTION  
OF ACADEMIC READING MATERIAL

	Preferred	Not Preferred
	Measured Attitude	
Actual Selection	15	135
	19	11

$\chi^2 = 43, p < .05$

The relationship between measured attitude toward academic reading material and actual selection of that type of reading material is a significant one. Hypothesis II is rejected for measured attitude toward academic reading material and actual selection of that type of material.

The relationship between measured attitude toward vocational reading material and actual selection of vocational reading material is presented in Table VI.

TABLE VI

THE RELATIONSHIP BETWEEN MEASURED ATTITUDE TOWARD  
VOCATIONAL READING MATERIAL AND ACTUAL SELECTION  
OF VOCATIONAL READING MATERIAL

	Preferred	Not Preferred
	Measured Attitude	
Actual Selection	16	136
	18	12

$\chi^2 = 31, p < .05$

The relationship between measured attitude toward vocational reading material and actual selection of that type of reading material is a significant one. Hypothesis II is rejected for measured attitude toward vocational reading material and actual selection of that type of material.

Hypothesis III. There is no significant relationship between stated attitude toward general, academic, and vocational reading material and actual selection

of general, academic, and vocational type material when given a choice of material to read.

To test the significance of the relationship between stated attitude toward general, academic, and vocational reading material and actual selection of that type of material when given a choice of material to read, two-way chi squares were used. The relationship between stated attitude toward general reading material and actual selection of that type of material is presented in Table VII.

TABLE VII

THE RELATIONSHIP BETWEEN STATED ATTITUDE TOWARD  
GENERAL READING AND ACTUAL SELECTION  
OF GENERAL READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Actual Selection	99	15
	50	16
	$\chi^2 = 2.87, p > .05$	

The relationship between stated attitude toward general reading material and actual selection of that type of reading material is not significant. Hypothesis III is accepted for stated attitude toward general reading material and actual selection of that type of material.

The relationship between stated attitude toward academic reading material and actual selection of that type of reading material is presented in Table VIII.

TABLE VIII

THE RELATIONSHIP BETWEEN STATED ATTITUDE TOWARD  
ACADEMIC READING AND ACTUAL SELECTION  
OF ACADEMIC READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Actual Selection	4	30
	11	135
	$\chi^2 = .21, p > .05$	

The relationship between stated attitude toward academic reading material and actual selection of that type of reading material is not significant. Hypothesis III is accepted for stated attitude toward academic reading material and actual selection of that type material.

The relationship between stated attitude toward vocational reading material and actual selection of that type of reading material is presented in Table IX.

The relationship between stated attitude toward vocational reading material and actual selection of that type of reading material is not

significant. Hypothesis III is accepted for stated attitude toward vocational reading material and actual selection of that type of reading material.

TABLE IX  
THE RELATIONSHIP BETWEEN STATED ATTITUDE TOWARD  
VOCATIONAL READING AND ACTUAL SELECTION  
OF VOCATIONAL READING MATERIAL

	Preferred	Not Preferred
	Stated Attitude	
Actual Selection	4	28
	12	136
	$\chi^2 = .20, p > .05$	

## CHAPTER V

### SUMMARY, CONCLUSIONS, IMPLICATIONS

The overall purpose of the present study was to construct and validate a reading attitude scale which would identify students' attitudes toward general, academic, and vocational reading materials. The validation of the instrument was dependent upon the significance of the relationship between students' measured attitudes toward reading material, stated attitudes toward reading material, and actual selection of reading material representative of general, academic, and vocational reading materials.

The Chi square statistical technique was used to determine if the reading preference indicated by the scale correlated with the stated attitude toward reading material and actual selection of reading material. The correlation between measured attitude toward general reading material and stated attitude toward general reading material was significant at the .05 level of confidence,  $\chi^2 = 49, p < .05$ . The correlation between measured attitude toward academic reading material and stated attitude toward academic reading material was also significant,  $\chi^2 = 27, p < .05$ . The correlation between measured attitude toward vocational reading material and stated attitude toward vocational reading material was significant,  $\chi^2 = 40, p < .05$ .

The correlation between measured attitude toward reading material and actual selection of reading material was also tested by use of the

chi square technique. The correlation between measured attitude toward general reading and actual selection of general reading type material is significant,  $\chi^2 = 9$ ,  $p < .05$ . The correlation between measured attitude toward academic reading material and actual selection of material representing academic material is significant,  $\chi^2 = 43$ ,  $p < .05$ . The relationship of measured attitude toward vocational reading material and actual selection of vocational reading material is significant,  $\chi^2 = 31$ ,  $p < .05$ .

The correlation between stated attitude toward general reading material and actual selection of that type of material is not significant,  $\chi^2 = 2.87$ ,  $p > .05$ . The correlation between stated attitude toward academic reading material and actual selection of that type of reading material is not significant,  $\chi^2 = .21$ ,  $p > .05$ . The correlation between stated attitude toward vocational reading material and actual selection of that type of reading material is not significant,  $\chi^2 = .20$ ,  $p > .05$ .

There is a significant relationship between measured and stated attitude toward type of reading material. There is no significant relationship between stated attitude and actual selection of a particular type of reading material, although there is a significant relationship between actual selection of reading material and measured attitude toward general, academic, and vocational reading materials.

The reliability coefficient for the general reading attitude scale is .81. The reliability coefficient for the academic reading attitude scale is .71. The reliability coefficient for the vocational reading attitude scale is .85.



## Conclusions

The analysis of the data establishes the Moore Reading Attitude Scale as a valid instrument which identifies attitudes toward general, academic, and vocational reading material. Validation was based on the correlation between the number of subjects who consistently stated an attitude toward general, academic, or vocational reading material, and who actually selected their preference type material when given a choice of material to read.

A preference for general reading material was found using both the stated and measured attitude. The measured attitudes for academic reading material and vocational reading material were virtually the same. Fifteen subjects indicated a preference for academic material, while 16 indicated a preference for vocational type material. In actual selection of reading material representing academic and vocational type reading material, 19 selected academic readings and 18 selected vocational reading material. A significant relationship between measured attitude and actual and stated attitude toward general, academic, and vocational reading was established. Further research is required to determine the nature of the relationship. One question to be answered by further research is how subjects differ within and between groups or categories. The answer to this question would further validate the scale.

The correlation between stated attitude toward reading and actual selection of readings representing that type of reading did not represent a significant relationship. The stated preference for a particular type of reading material was not consistent with actual reading

selection. The implication is that measured attitude toward reading material is a better indicator of attitude toward reading than stated attitude toward reading. Lemon (1973) states that "the relationship between attitude and behavior taken as a whole does not demonstrate a marked correspondence, and that correlations between attitude and behavior are seldom more than .30, and often fall to mere zero" (p. 249). Additional research is needed to determine the relationship between attitude as measured by the Moore Reading Attitude Scale and behavior.

#### Implications of the Study

Teachers of young adult students need instruments which will aid in the development of the total picture of the learner's reading ability. An instrument which would assess the learner's attitude toward reading material would contribute much to the understanding of the learner's feelings about reading in general and feelings toward reading material more specifically. The Moore Reading Attitude Scale is a valid instrument and will aid in the categorization of students' attitudes toward general, academic, and vocational reading materials.

Stated attitude toward reading material is not consistent with actual selection of reading materials. There is a significant relationship between measured attitude toward reading and actual selection of reading material. Additional research is needed to determine the relationship between preference for reading material and reading achievement. If tests were written in the reading preference of the learner, what effect would reading preference have on comprehension?

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## APPENDIX

### READING STRATEGIES OF FLUENT READERS

1. The reader discovers the distinctive features of letters, words and meaning.
2. The reader takes chances (risks errors) in order to learn about printed text and to predict meaning.
3. The reader reads to identify meaning rather than to identify letters or words.
4. The reader guesses from context at unfamiliar words, or else just skips them.
5. The reader takes an active role, bringing to bear his or her knowledge of the world and of the particular topic in the text.
6. The reader reads as though he or she expects the text to make sense.
7. The reader makes use of redundancies--orthographic, syntactic, and semantic--to reduce uncertainty about meaning.
8. The reader maintains enough speed to overcome the limitations of the visual processing and memory systems.
9. The reader shifts approaches for special materials.
10. The reader shifts approaches depending on the purpose.

Cooper and Petrosky (1976)



## CLASSIFICATION OF READING BEHAVIORS

1. Selection of purpose
  - 1.1 Reads for assigned task
  - 1.2 Reads because interested in selection or for enjoyment
  - 1.3 Reads to cooperate or complete task
  - 1.4 Reads to remember facts or details
  - 1.5 Reads to understand main ideas
2. Responds orally
  - 2.1 Subvocalizes
  - 2.2 Reads orally
  - 2.3 Mentally reads aloud
3. Identifies words
  - 3.1 Underlines with finger to focus attention
  - 3.2 Uses context to get meaning
  - 3.3 Asks for word pronunciation
  - 3.4 Decodes words
  - 3.5 Asks for word meaning
4. Uses a study technique
  - 4.1 Looks at comprehension quiz before reading the selection
  - 4.2 Previews
  - 4.3 Compares information in selection with own knowledge
  - 4.4 Questions self or speculates about selection while reading
  - 4.5 Anticipates selection's content
  - 4.6 Reviews
  - 4.7 Rereads
5. Refers to rate of reading
  - 5.1 Reads carefully or slowly
  - 5.2 Skims
  - 5.3 Skips words or certain sections
6. Notes specific parts
  - 6.1 Title
  - 6.2 Author's name
  - 6.3 Beginning paragraphs
  - 6.4 Italicized type or subheadings
  - 6.5 Dialogue
  - 6.6 Ending paragraphs

7. Uses imagination
  - 7.1 Thinks of similar direct personal experience
  - 7.2 Thinks of similar TV program, movie, written material, or discussion
  - 7.3 Becomes a character or empathizes with the character
  - 7.4 Visualizes character
  - 7.5 Reacts to character, setting, or events
  - 7.6 Thinks about what might happen if selection continues
8. Responds affectively
  - 8.1 Reacts positively
  - 8.2 Reacts negatively
9. Notes author's style
10. Thinks about something unrelated to selection; not paying attention while reading

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VITA

Samuel Charles Moore

Candidate for the Degree of

Doctor of Education

**Thesis:** THE CONSTRUCTION AND VALIDATION OF A READING ATTITUDINAL SCALE FOR YOUNG ADULTS

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**Biographical:**

**Personal Data:** Born in Elizabeth City, North Carolina, December 5, 1947, the son of George and Erma Moore.

**Education:** Attended grade school and high school in Elizabeth City, North Carolina; graduated from P.W. Moore High School in 1966; received the Bachelor of Arts degree from Shaw University, Raleigh, North Carolina, majoring in English, May, 1970; Master of Arts in Teaching degree from Northwestern University, Evanston, Illinois, May, 1971; certified as Youth Correctional Officer, North Carolina Criminal Justice Academy, Salemburg, North Carolina, 1975; completed requirements for the Doctor of Education degree at Oklahoma State University, Stillwater, Oklahoma, July, 1980.

**Professional Experience:** Secondary English teacher, Chicago Public Schools, Chicago, Illinois, 1970-71; Reading instructor, Higher Education Achievement Project (HEAP) at Kittrell College, Kittrell, North Carolina, 1971-72; Reading instructor, Norfolk State University, Norfolk, Virginia, 1972-74; Reading instructor, Elizabeth City State University, Elizabeth City, North Carolina, Summer, 1973; Reading Specialist, Samarkand Manor, Eagle Springs, North Carolina, Division of Human Resources, State of North Carolina, 1974-75; Reading instructor, Norfolk State University, 1975-78 (presently on leave); College Reading Improvement instructor, Oklahoma State University, Stillwater, Oklahoma, 1979-80; Supervision of teachers and graduate students in Diagnosis and Remediation of Reading Difficulties class, Oklahoma State University, Stillwater, Oklahoma, 1979-80; Practicum in Reading instructor, Summer, 1980.

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