

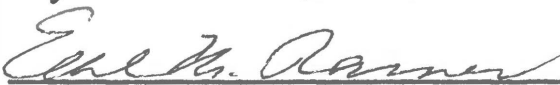
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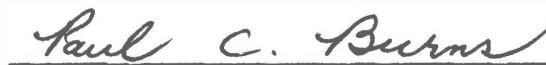
I am submitting herewith a dissertation written by Betty Sue Heathington, entitled "The Development of Scales to Measure Attitudes Toward Reading." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Curriculum and Instruction.


J. Estill Alexander, Major Professor

We have read this dissertation
and recommend its acceptance:


Charles B. Shomo


Earl M. Rosner


Paul C. Burns

Accepted for the Council:


Vice Chancellor
Graduate Studies and Research

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756
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THE DEVELOPMENT OF SCALES TO MEASURE
ATTITUDES TOWARD READING

A Dissertation
Presented for the
Doctor of Education
Degree
The University of Tennessee

Betty Sue Heathington

August 1975

1227577

DEDICATION

This dissertation is dedicated to my daughter Joni who always expressed her complete confidence in my ability to do anything that was required in my doctoral program and to my husband Kenneth who has been a constant source of encouragement and inspiration in my educational and professional endeavors.

ACKNOWLEDGMENTS

I am grateful to Dr. Estill Alexander, my major professor, for his support throughout my doctoral program. I am appreciative of the guidance given to me during this study by Dr. Alexander and the other members of my committee, Dr. Earl Ramer, Dr. Paul Burns, and Dr. Charles Chance.

Special thanks are expressed to Mrs. Virginia Lewis, Mrs. Jane Davis, Mr. Earl Wells, and Mr. Bob Huff, principals of the four schools in which the study was conducted. Thanks are also extended to the classroom teachers who graciously received me in their classrooms.

ABSTRACT

The purpose of this study was to develop an instrument or instruments to measure the attitudes toward reading of children in grades one through six. Criteria were established for such an instrument. The Likert-type scale was chosen as the most appropriate type of instrument to meet the established criteria.

Two rural schools and two urban schools with normally distributed populations according to ability and socioeconomic levels were used in the study. Pilot work, consisting of individual interviews with children in grades one through six, was conducted to explore the area of reading attitudes and to obtain statements suitable for the attitude scale. Such interviews revealed that two scales were needed, one for grades one through three and one for grades four through six.

The two attitude scales were administered to sample populations in the four schools. The final scales contain 20 items for grades one through three and 24 items for grades four through six. Answer formats were also designed for each scale.

The scales were checked for reliability by the test-retest method and for validity by item analysis and by teacher ratings of students with positive and negative attitudes.

Diagnostic clusters of questions were developed to be used by teachers to diagnose specific areas of children's attitudes which are positive or negative.

The scales were judged to meet the established criteria.

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CHAPTER I

THE STUDY

I. INTRODUCTION

School records today normally reveal reading achievement scores of the child since entering school. Each year tests are given to measure achievement levels, with emphasis placed on the results. Teachers want to know if their students deviate from the "normal" or "average." Improvement or decline in an individual's scores suggests possible strategies to use in guiding that child's progress. In the opening days of school, teachers use previous scores in planning instruction for their students. Reading skills determined to be inadequate are given special emphasis.

While the importance of achievement testing in reading should not be neglected, vital elements in the reading success of the child may not be found in these test scores. For example, reading records seldom reveal statements or test results concerning the attitudes of a child toward reading. There is usually no information about present or past feelings or specific areas in which the child's attitude is strong or weak.

Most educators agree that attitudes are important. Many first grade reading teachers realize that one of

the most important goals of initial reading instruction is to help children develop favorable attitudes toward reading. This initial reaction is thought to have lasting effects since attitudes acquired by children early in reading instruction strongly influence later reading behavior (Heilman, 1972). Since one of the long-range goals of reading instruction is to prepare children to read for enjoyment and information in the future, attention directed toward attitude development is essential. There is little merit in children becoming proficient readers unless such proficiency is used in later life (Bond and Tinker, 1973). Huck (1973) has aptly stated the vital importance of positive attitudes:

If we teach a child to read, yet develop not the taste for reading, all our teaching is for naught. We shall have produced a nation of "illiterate literates"--those who know how to read, but do not read. The major purpose for teaching children to read is to help them become readers who readily turn to books for information and enjoyment.

II. STATEMENT OF THE PROBLEM

If attitudes are so important, why is measurement of attitudes neglected in the schools today? Examination of the availability of instruments for measuring attitudes toward reading provides an answer. There are very few instruments available for teachers to use in their classrooms.

In the past, research in reading has not concentrated on attitude measurement but has been devoted primarily to a study of materials, methods, and achievement. A wealth of materials has been produced; unique methods have been developed and field tested; and an abundance of tests has been devised which measure reading success in regard to cognitive achievement. Few investigators have looked into the affective realm, the attitudes of students toward reading (Lowery and Grafft, 1968).

Because of this sparse research, few instruments are available for classroom teachers to use to assess attitudes toward reading. Without such instruments, teachers often overlook vital aspects of children's reading make-up.

Thus, a problem facing educators is the availability of instruments which adequately measure attitudes toward reading. Some efforts have been made and a few instruments have been published in recent years. While these instruments have contributed greatly to the knowledge of attitude measurement, each of the available instruments seems to lack important characteristics to make it completely adequate for the use of classroom teachers.

III. NEED FOR THE STUDY

An instrument which measures children's attitudes toward reading should possess certain attributes to be beneficial to classroom teachers. This investigator established criteria which such an instrument should possess.

1. It should require no reading on the part of the child. Since a portion of the children in almost any classroom are either non-readers or do not read on grade level, an instrument which requires reading discriminates against some children.

2. It should be a device which can be used early in the school year before the teacher has become familiar with her students. The teacher can then begin very early to plan activities to improve individual attitudes toward reading. In a classroom of 25 to 35 pupils, a period of weeks or months is required for a teacher to become familiar with the individual reading habits of each of the students in her room. By having an instrument which can be used in the opening days of school, a teacher can be promptly alerted to those students who possess negative attitudes toward reading.

3. It should require minimal time for administration and scoring. Since many duties demand time and attention during the first days of the school year, a

teacher does not have the opportunity to talk to or observe each child at great length. Because of this time restriction, efficiency in administration and scoring is an essential quality of the measuring tool.

4. It should be a reliable and valid device. Whatever time is spent in administering and scoring an instrument will be wasted if valid and reliable results cannot be obtained.

5. It should measure important aspects of a child's reading environment. Because attitudes toward reading can be measured in many areas, such as reading in the classroom, reading at home, reading in the library and other places, the instrument must be one that taps these important elements. A teacher needs to know exactly and specifically which areas of a child's experiences with reading are contributing to a positive or negative attitude.

6. It should take into account the fact that attitudes must be measured throughout the entire formative period (grades one through six). Since authorities feel that the early years in school are a critical period in the development of positive attitudes, an instrument or instruments appropriate for the first six years of school are essential.

7. It should contain items which are representative of children's feelings toward reading. In the past,

items chosen for use on attitude scales have been those statements which adults (teachers, professors, and reading experts) have felt to be representative of positive or negative feelings of children toward reading.

Since no device known to this investigator possessed all of these seven attributes, a timely and critical need was recognized for an instrument which would effectively combine all of these elements into a useable measuring tool for classroom teachers. The research in reading has been so limited in the area of attitude measurement that no instrument known to this investigator has been published which meets all of the criteria outlined. The intent of this study was to develop such an instrument or instruments.

IV. LIMITATIONS OF THE STUDY

Limits of the study were identified as follows:

1. The size of the samples involved in the study were restricted to the lower numbers deemed adequate by authorities in the field of attitude measurement.
2. The geographical area of the study was restricted to the Knox County and Knoxville City schools.
3. Participating schools were selected by administrators in the two systems. The schools so selected provided access to students from normally distributed

socioeconomic and achievement levels.

4. Participating classes were chosen by building principals and were all randomly organized on the basis of ability and socioeconomic levels.

V. DEFINITIONS

Throughout this report, certain terms related to attitude measurement are used. While most of these terms are adequately defined in the text, a compilation of the terms in alphabetical order is given here for easy reference by the reader.

Attitude - a favorable or unfavorable response toward a stimulus.

Attitude measurement - an attempt to determine whether someone has a positive, neutral, or negative attitude toward a stimulus.

Attitude scale - an instrument which gives a total score indicating the direction and intensity of an individual's attitude toward a stimulus (Anastasi, 1970).

Attitude statement - comments given by respondents during pilot interviews, by authorities in a certain field, or by writers in the literature concerning attitudes toward a certain stimulus.

Item analysis - statements or items analyzed quantitatively for item validity (Anastasi, 1970).

Item pool - collection of attitude statements from

which an attitude scale is built (Oppenheim, 1966).

Likert Scale - a procedure developed by Likert to be used in attitude scale construction in which items are selected on the basis of the responses of subjects to whom they are administered; graded responses employed by using five categories--(SA) strongly agree, (A) agree, (U) undecided, (D) disagree, and (SD) strongly disagree (Anastasi, 1970).

Pilot work - free interviews, depth-interviews whose purposes were to examine the reading attitudes of students in grades one through six and to obtain statements for use on the attitude scale.

Reading environment - places and situations where a child engages in reading activities.

VI. ORGANIZATION OF THE STUDY

This study has been organized into five major sections or chapters. Chapter I contains the introduction, statement of the problem, need for the study, assumptions, limitations of the study, definitions, and organization of the study.

Chapter II contains a survey of the literature relevant to attitudes, attitude measurement, and instruments for measuring attitudes toward reading.

Chapter III delineates the procedures followed in conducting the research project.

Chapter IV contains an analysis of the data.

Chapter V includes a summary, discussion, and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

A review of the literature related to attitudes, attitude measurement, and instruments for measuring attitudes toward reading is contained in this chapter.

I. ATTITUDES

The literature provides definitions and characteristics of attitudes. This information serves as a background for an understanding of attitudes.

Definitions

An attitude has been variously defined as a feeling for or against something (Remmers and others, 1965), as behavior--what is said or done (Mager, 1968), and as a tendency of approach or avoidance (Osgood and others, 1967). These are a sampling of the definitions which have been offered to explain the nature of an attitude. A favorable or unfavorable response toward a stimulus is the definition of an attitude which was accepted for this study.

Characteristics

Examination of the literature reveals that an attitude possesses various qualities. The following

characteristics seem pertinent to this study:

1. Mager (1968) mentions the abstract quality of an attitude, saying that a dissection of someone would not reveal a "thing" called an attitude. However, an attitude is very real to the person who holds one (Oppenheim, 1966). While an attitude cannot be seen, touched, or heard, its force and power in a person's life is recognized just as such abstractions as love, hate, and fear are known to control actions.

2. Another dimension is that of content--what the attitude is about (Oppenheim, 1966). A relationship between a person and objects, groups, institutions, or values is implied (Sherif and Sherif, 1970). People hold attitudes toward innumerable things, such as war, taxes, weather, cats, and telephones, demonstrating that an attitude is a reaction to a designated class of stimuli (Anastasi, 1970).

3. Not only does an attitude have content, but also it has intensity (Oppenheim, 1966). One person may have an intense feeling that a certain candidate is the best choice for president, working actively in the campaign while another individual may also think the candidate is a good choice but is not compelled to work for the candidate at all. Although there is no proof, an attitude is perceived as a straight line, going from positive, through neutral, to negative (Oppenheim, 1966).

In attitude measurement an attempt is made to place an individual somewhere along this continuum.

4. Finally, an attitude is the result of many events and circumstances (Mager, 1968). A person's attitude is shaped by what has happened to him in the presence of a certain stimulus throughout his lifetime. Past experiences will produce either a favorable, unfavorable, or neutral position concerning the stimulus.

II. ATTITUDE MEASUREMENT

The literature concerning attitude measurement can be discussed relative to applications of attitude measurement, problems in measurement, and types of instruments.

Applications of Attitude Measurement

Attitude measurement attempts to show intensity of feelings toward a stimulus quantitatively through the use of scales or tests. For years, attitude measurement has proven to have relevancy in several realms: public opinion polling, market research, employee attitudes and morale, education and training, and research in social psychology (Anastasi, 1970). These areas have applied knowledge gained from attitude measurement to make advances in their field.

The use of attitude measurement in evaluating education and training is of particular interest in this study. When there is concern with the affective outcome of such training and education, attitudes are assessed. Often one instructional technique is compared to another, using positive attitudes as one criterion of success. Studies have been conducted using a traditional strategy with a control group and a new instructional strategy with an experimental group. The difference in the attitudes of the two groups is evaluated at the end of the experiment to determine which strategy produced the more positive attitudes.

Problems in Measurement

While problems are encountered in the use of almost any measurement tool, the affective or emotional domain is especially plagued with difficulties in measurement. Some of these problems are especially relevant to this study.

1. One of the first questions which arises is "whether verbally expressed opinions can be regarded as indicators of 'real' attitudes" (Anastasi, 1970). Does a person answer as he "thinks" he should or as he really feels? Certain steps will ensure that responses are as nearly the true feelings of the respondent as possible.

Mager (1968) says that the "honesty with which a student will answer the items on a questionnaire partly depends on how well he trusts the person who is doing the asking." The respondent must feel that no repercussions will occur because of the answers given and that his true feelings will be accepted and appreciated.

2. Another problem encountered is the identification of those behaviors that indicate favorable and unfavorable attitudes. Mager (1968) makes the following statement:

In general, then, we can say that people with strong approach tendencies toward a subject keep coming back for more experiences with the subject. They seek out experiences with the subject in preference to other desirable experiences.

Oppenheim (1966) suggests preliminary interviews or pilot work with subjects comparable to those for whom the instrument is designed to draw up rough sketches of the attitude clusters or behaviors in question.

3. If everyone is favorably disposed toward a certain stimulus or object, another questionable situation arises. Careful pilot work often reveals such inconsistencies and allows the investigator to revamp the aims of the study (Oppenheim, 1966). For example, if, during the interview sessions, the investigator finds everyone favorably disposed toward the subject, there will be no basis on which to construct a scale going from positive to negative. Careful reconsideration

of all aspects of the problem may enable the investigator to probe other valid questions and arrive at a useful approach to the problem.

4. Writing the attitude statements is a multifaceted source of problems. Several rules should be taken into consideration in writing statements (Oppenheim, 1966).

a. Use phrasing which arouses feelings and emotions. Since the measurement aims at uncovering attitudes, statements should be those geared to bring responses of active agreement or disagreement.

b. Use phrases or colloquialisms appropriate for those who will respond to the statement. Communication results when language is familiar and similar to that of the respondents.

c. Use short, uncomplicated sentences which avoid double negatives. Sentences can become so long and involved that the respondent has trouble remembering what he is actually responding to or whether he agrees or not.

d. Avoid a statement which contains two conclusions since the respondent may agree with one and disagree with the other. "Richard Nixon was an excellent president in matters of international policy, but a poor leader in national economic policies" is an example of such a "double-barreled" statement.

e. Avoid statements which are too obviously positive or negative. Since one of the primary goals of using an attitude scale is to allow the respondent to express his views without a direct approach, statements should be worded to avoid the obvious.

Statements on the attitude scale will either produce an instrument of great worth and value or one of questionable merit, depending on how well the statements are worded.

5. Validity is another concern in attitude measurement. Various criteria have been used to establish validity: membership in contrasted groups, ratings by close acquaintances, and biographical data secured through extensive interviews or case studies (Anastasi, 1970). Correlation with another attitude scale, such as a new scale with an older one whose validity has been established, is often used.

6. The last problem area to be noted is that of reliability. Two ways to establish reliability of attitude measurement scales are the test-retest method and the split-half method.

The problems encountered in attitude measurement must be recognized and carefully considered in developing and testing any measuring device. Effective solutions will produce a more valuable and useful instrument.

Types of Instruments

A survey of the literature relative to the types of instruments used in attitude measurement provides background information about the instruments and the procedures used to construct them. Authorities in the field of attitude measurement use various categories to differentiate between the types of instruments. Categories which seem useful are (1) single question technique, (2) attitude scales, (3) projective devices, and (4) physiological reactions.

Single question technique. This method is used in public opinion polls. A statement is given and the respondent is asked if he agrees or disagrees (Remmers and others, 1965). At other times the respondent is asked to reply to specific questions with the answers being kept separate and not combined into a total score (Anastasi, 1970). Validity measures of the single question technique included "real-life voting" criteria, agreement between answers and known social commitments, expert opinions, and future nonverbal behavior (Remmers and others, 1965). Because only one item is involved, reliability of this technique is usually limited to the test-retest method.

Attitude scales. Two of the techniques in this category, the Thurstone scale and the Likert scale, have

had greater impact on the study of attitudes than any other type of instrument. The Thurstone scale, reported in 1929, and the Likert scale, reported in 1932, have been used in countless studies involving attitude measurement.

The first step in the Thurstone procedure is to collect a pool of items, either from the literature or from pilot interviews (Oppenheim, 1966). Then a group of 30 or more judges is asked to sort the statements into 11 categories, ranging from a favorable attitude at one end to an unfavorable attitude at the other (Remmers and others, 1965). Calculations are then made to determine a scale value for each statement with the median position of the statement being taken as the scale value. Statements whose scale values are equally placed along the attitude continuum are selected for use on the attitude scale (Anastasi, 1970). The scale is then administered by asking a subject to check or mark all the statements which he endorses as expressing his opinion or attitude (Remmers and others, 1965). The respondent's score is the median scale value of all the statements he has checked (Anastasi, 1970).

Certain attributes of the Thurstone scale should be kept in mind:

- (1) A great deal of labor is required to construct such a scale (Remmers and others, 1965).

(2) There is the possibility that judges' attitudes may affect their classification of the statements (Anastasi, 1970).

(3) Judges should be similar to the respondents who will be in the research sample (Oppenheim, 1966).

It is recommended that a Thurstone-type scale be checked for reliability "by preparing two parallel forms from the same material and by presenting both forms to the same individual" (Thurstone, 1970). The reliability is determined by the correlation of the two scores. For the instrument to be considered valid, an assumption must be made that the scale values are independent of the attitude distribution of the judges (Anastasi, 1970).

The Likert technique has also been widely used. Because it is less laborious and does not require the use of judges, the popularity of the Likert-type scale exceeds that of the Thurstone scale (Oppenheim, 1966). As with the Thurstone technique, the first step in construction is the collection of an item pool. The entire item pool is administered to a sample population. For each statement, the respondent must choose one of five positions, ranging from "strongly agree" to "strongly disagree." Numerical values are assigned to the five positions. A 5 may indicate either "strongly agree" or "strongly disagree" as long as consistency is maintained. After the respondent has marked all items, his

total score is obtained by adding all the values of the individual statements (Oppenheim, 1966). An item analysis is then carried out to determine which statements are to be used in the final scale, which consists of about 18 items (Oppenheim, 1966).

The Likert scale has certain unique characteristics:

1. "Likert-type scales can be constructed in a relatively short time, require no judges, and can be scored rapidly" (Remmers and others, 1965).

2. The Likert technique has been criticized because of its lack of reproducibility (the same total score can be obtained in several ways) (Oppenheim, 1966).

3. With regard to validity and reliability, the results obtained from this type of scale are comparable to the Thurstone technique (Remmers and others, 1965).

Because of the impact of the Likert and Thurstone techniques, scaling has become an important part of attitude measurement.

Indirect or projective devices. This method is primarily limited to a clinical setting with a clinician evaluating the responses of an individual. Since most of the projective techniques "reflect the influence of psychoanalytic concepts" (Anastasi, 1970), their use is

much more limited than a technique such as attitude scaling.

The projective technique is not always favorably received; critics level a variety of charges against it. Kidder and Campbell (1970) list four criticisms often made against projective techniques:

1. Many people consider such a device an invasion of privacy and charge that a test is often disguised as to its true purpose.

2. The deceptive-deprecatory-exploitative attitude toward subjects is another criticism. The researcher is often accused of unethical behavior in deceiving his subject and using information obtained to exploit his subject in case write-ups.

3. Others charge that researchers fail to demonstrate the values of indirect measures. Although asserting that indirect techniques are advantageous, they have failed to conduct adequate studies to establish this contention.

4. The fourth criticism is that the research results have been disappointing, often establishing that the indirect test correlates well with a direct test without proving any superiority of the indirect method.

Although often criticized, the projective technique is still actively used in the field of attitude measurement. Oppenheim (1966) has listed some of the

commonly used projective tests in attitude measurement:

1. Sentence completion - A word or partial sentence is given and the respondent is asked to complete the sentence with the first thought that comes into his mind.

2. Cartoons - In a regular cartoon drawing, one of the balloons (indicating speech) is empty. The respondent is asked to place himself in the situation of the character in the cartoon and respond as he feels the character should.

3. Picture interpretation - This test involves the use of 20 cards, 19 of which have vague drawings with the twentieth card being blank. The respondent may be asked to tell a story about each of the pictures which usually represent human figures in various situations.

4. Stories - In this approach, a brief story is told to the respondent. He is asked to supply the ending, either choosing between two characters, stating what he would have done in such a situation, or why a particular character reacted as he did.

5. Play techniques - An object may be shown to a respondent and he is asked to make comments about it. Next, the respondent is asked to do something with the object. His actions are then analyzed.

6. Experiments - In a controlled setting, the

behavior of the individual is observed, usually without his knowledge. An example might be a hidden camera filming the reactions of children who have found a "lost" dollar.

An overview of the literature regarding the projective technique indicates that such a procedure must be used by those who fully understand and appreciate the many facets of the instrument. Use by inexperienced and unprofessional individuals could be detrimental to those involved in the research.

Physiological reactions. Although this method has had limited use in the measurement of attitudes, mention should be made of some of the techniques that employ physiological reactions. The basis of such techniques is the "belief that physiological measures can be employed to indicate emotional arousal" (Summers, 1970). Measures of autonomic responses are used on the assumption that they are indicators of emotional arousal. Two measures currently being used in experimental settings are Galvanic Skin Response and pupillary constriction and dilation.

A measurement of Galvanic Skin Response is accomplished "by attaching two electrodes to the skin, introducing a weak electrical charge and calculating the amount of resistance to conduction, usually expressed in

ohms" (Summers, 1970). For example, slides showing pictures of a certain race are shown to an individual with the Galvanic Skin Response being used as an indicator of the degree of prejudice against the race.

Pupillary constriction and dilation is another physiological reaction being investigated today. In an experimental setting, the size of the person's pupil is measured as it is confronted by various stimuli (Mueller, 1970). The assumption is that there is a relationship between various mental states and pupil size.

Although measurement of physiological reactions seems to offer possibilities in the area of attitude measurement, further research will be needed to establish its adequacy.

Summary. These four categories of instruments (single question technique, attitude scales, projective devices, and physiological reactions) provide an overview of the primary methods presently being used to measure attitudes.

III. INSTRUMENTS FOR MEASURING ATTITUDES TOWARD READING

The literature concerning the measurement of attitudes toward reading is somewhat limited; the

available materials lend themselves to a description by categories of types of instruments: (1) Interview, (2) Questionnaire, (3) Pairing, (4) Observation, (5) Likert-Type Scale, and (6) Projective Technique. Similar categories were developed by Filler and Alexander (1973). When appropriate, each instrument will be discussed relative to its utilization, construction, administration, scoring, validity, reliability, and limitations.

Interview

The interview is a very informal means of assessing attitudes. Thus, it is probably used often by teachers as they attempt to determine how their students feel about reading. Two research reports, one by Laswell (1967) and one by Applegate (1968), are examples of the interview technique.

Laswell (1967) investigated the "possible influence of level of reading group placement on two important variables--enjoyment of reading and perception of self as a reader." Structured individual interviews were held with a sample of primary pupils. Five questions were asked:

Question 1 - "What is your favorite color?" (introductory question)

Questions 2 and 3 - "How do you like bananas?" and "How do you like reading?" (The child was asked to make a choice of one of three sizes of squares with

"very much," "in between," and "a little bit" written on them.)

Question 4 - "If all the boys and girls in your room were on a list . . ., with the names of the best readers on the top lines and the names of the poorest readers on the bottom lines, point to show me which line you think your name would be on." (A list with "My Class" written at the top with lines on it was shown to the student.)

Question 5 - "What would you like to be when you grow up?" (concluding question).

The results of the interviews led Laswell (1967) to conclude that "perceived success in reading within any group can lead to a high level of enjoyment of reading and a favorable perception of that group's ability as a whole."

Applegate (1968), in an article which examines aspects of individualized reading, lists some open and semi-structured questions which can be used to assess children's feelings about reading:

Question 1 - "How do you feel about reading?"

Question 2 - "What changes would you make, if you could make changes, in our reading work?"

Question 3 - "Do you like to read by yourself or with someone?" "Why?"

The questions used by Laswell and Applegate are typical of those employed in an interview. Several limitations are noted by this investigator in such a method:

1. It is time-consuming. One or two questions are usually inadequate for finding out how a child feels

about reading. Several questions followed by discussion involve a great amount of time. Classroom teachers usually do not have this much time to spend with each child.

2. Such questioning will not likely cover the important aspects of a child's reading behavior, such as reading in the library, reading in the classroom and other places.

3. Reliability and validity are very difficult to determine with interviews.

4. Since the questioning is usually done by the teacher, the child may tend to answer as he "thinks" he should to please his teacher.

These limitations of the interview technique greatly restrict the use which can be made of it in the classroom. However, it is an instrument which is used successfully by some teachers.

Questionnaire

The questionnaire technique, which can be used in a group situation, usually has a number of questions which children read or which are read to them. The children are asked to respond by circling "yes" or "no" or by providing some information in written form. The Elmira City School District's Reading Attitude Inventory (1969) and the San Diego County's Inventory of Reading

Attitude (1961), which were developed for use in those school districts, are representative of the questionnaire type of attitude measuring device.

The Elmira City School District's questionnaire is part of an overall reading assessment inventory. Four major sections are included in the inventory: a reading attitude inventory, a phonics inventory, a word recognition checklist, and an oral and silent reading inventory. The Reading Attitude Inventory contains questions to be answered by circling "yes" or "no" and questions which require written answers. The child is asked to read the questions and respond to them. There are 25 questions on the questionnaire with no time limit placed on completion.

The San Diego County's Inventory of Reading Attitude also has 25 questions, all of which are to be answered by circling "yes" or "no." One point is given for each answer that indicates a positive attitude with a total score calculated by adding up all of the positive responses. The time required for administration is approximately 20 minutes.

The San Diego inventory has been checked for reliability and validity. The test was split into an odd-even division of items to check for reliability which was found to be .79. Validity was established in two ways: (1) the 25 items were chosen from a pool of 114

items by item analysis, and (2) teachers were asked to choose the three students in their class with the most favorable and the three students with the least favorable attitudes. Mean scores of the two groups were then compared and found to be significant beyond the 1 percent level.

Because it can be administered in a group situation, is easily scored, and can be checked for validity and reliability, the questionnaire is superior to some of the other types of measuring instruments. However, this investigator feels that it has limitations:

1. Often the student is asked to read the questions before answering. Students with reading problems and beginning readers would have a great deal of difficulty reading either the San Diego inventory or the Elmira inventory.

2. A "yes" or "no" or one word answer greatly limits the range of attitudes. In this dichotomous situation, the child cannot indicate degrees of agreement or disagreement.

Thus, while the questionnaire offers some positive qualities, it is lacking in some essential aspects as a method of measuring reading attitudes.

Pairing

In the pairing method, two contrasting sentences

are paired or two pictures are paired and the respondent is asked to make a choice between the two. A composite score can be obtained for each respondent by adding up the one points given for each positive statement chosen. Pairing has been used by several investigators in the field of reading.

Schotanus (1967) interviewed a sample of 15 second grade children to determine what leisure time activities children prefer. Six categories were most often mentioned:

playing actively outdoors, watching television,
playing actively indoors, playing quietly outdoors,
playing with a pet, helping a parent.

An artist made drawings of the six recreational activities which were then paired with a picture depicting a reading activity. The result was 20 pairs of pictures for the final measuring instrument. If the child chose reading each time that it was presented, his score was six. Schotanus (1967) states that "the children who scored above the median of three were assumed to have a favorable attitude toward reading and those who scored below, an unfavorable attitude."

Askov (1970) determined that the Schotanus inventory was inadequate "because the children in the drawings are not easily identified as either boys or girls." Askov devised separate versions for boys and girls after interviewing 20 second and third grade

children concerning their leisure time activities. The nine most-mentioned activities were then depicted by an artist as well as three reading activities. Each of the three reading pictures was paired with each of the nine non-reading pictures. Validity was established by asking teachers to select five of their students with the best attitude and five with the poorest attitude. The inventory was administered to 94 second and third grade children. A t-test for independent samples revealed a significant difference between the high and low interest groups' scores. The reliability of the instrument was determined by the test-retest method with a resulting reliability coefficient of .906.

Later Askov (1973) refined her instrument, eliminating some of the items. She added distractors in this later version, pairing two recreational activities several times. Lamb (1971) utilized the Askov device in a research project but modified the pictures to portray black children for those in her sample who were black.

Bullen (1970) designed an attitude instrument which also used the paired comparison method. In a preliminary questionnaire, 210 children were individually asked to respond to questions about preferred activities at home, presents they would like to receive, and things they would buy if they had two or three dollars to spend.

After determining the preferred activities, a pictorial form was constructed for grades one and two and a written form for grades three through five. Reliability was checked by the test-retest method and results showed "the group means of each question with few exceptions did not vary appreciably at any grade level from initial testing to retesting."

An instrument which uses pairing of statements was developed by Harry Sartain as reported by Heimberger (1970). There are four sections of the inventory: recreational reading, work-type reading, learning to read, and social values, with a total of 37 responses required. The pairs of items are read orally to the children with answer sheets provided on which answers are marked. The inventory was designed for grades two, three, and four.

While pairing has received considerable attention in recent attitude devices, this investigator contends that there are limitations to those currently available:

1. In the Schotanus, Askov, and Bullen inventories, there is a lack of coverage of the entire area of reading, with the emphasis completely on recreational activities. Poor attitudes in regard to content area reading, the reading group, or other situations are not considered. Many other aspects of a child's reading environment need to be examined in addition to recreational reading.

2. The Askov and Schotanus instruments both have been devised and tested using grades one, two, and three for sample populations. The critical period in grades four, five, and six is not included.

3. While the four categories of reading behavior outlined by Sartain is beneficial, the instrument is also devised for use only in grades two, three, and four.

4. In all of these instruments, the pairing limits the respondent to one of two choices.

A survey of the available instruments reported to date indicates that pairing has been a popular choice of several investigators who have constructed measuring devices.

Observation

As its name implies, this method requires that an observer record, in some way, behavior displayed by children. The observer must have in mind specific criteria for the behaviors noting favorable and unfavorable attitudes toward reading. Records over time will reveal how the child reacts in reading situations. Observation is probably the most time consuming of any of the types of instruments.

The only observation instrument known to this investigator is that by Rowell (1972), who published a scale that can be used by classroom teachers. Rowell

selected three categories of reading behavior, reading for pleasure, reading in content areas, and reading as it takes place in reading classes. Sixteen statements, representing these three categories were then developed. Intensity of feeling is recognized by the use of five categories after each statement. The following is one statement from Rowell's instrument:

Always Occurs	Often Occurs	Occasion- ally Occurs	Seldom Occurs	Never Occurs
------------------	-----------------	--------------------------	------------------	-----------------

The student exhibits
a strong desire to
come to the reading
circle or to have
reading instruction
take place.

Rowell (1972) states, "The scale was developed to be used in circumstances where the observer had more than a brief period to record how a child behaved in various reading situations." He warns that a brief observation time could result in gross misinterpretations. Reliability of the scale was estimated by determining interrater reliability between four student teachers and four supervising teachers observing the same children. Coefficients of .95, .91, .76, and .89 were found for the four pairs of observers. Validity was established by having four student teachers use the observation scale and four classroom teachers use their expert judgment concerning the children. Coefficients of .80, .84, .52, and .63 were found for the four pairs.

Rowell's instrument benefits from its use of at least three reading situations, its recognition of intensity in the five categories (always occurs, often occurs, occasionally occurs, seldom occurs, never occurs), and its reliability and validity data. Its greatest limitations are that it is time consuming in its utilization and that it requires an observer to be with the children over a prolonged period of time.

Likert-type Scale

As with the observation technique, few devices are found which use the Likert-type scale in measuring attitudes toward reading. The Likert-type scale which uses ratings to show intensity of feelings, was described in the first portion of this chapter. A total score is determined for each individual respondent by adding up the values (1,2,3,4, or 5) for all the statements.

A recent instrument of the Likert-type developed by Estes (1971) uses 20 statements which are to be read to the respondent. Five categories, A through E, are to be checked by the respondent (A = strongly agree, B = agree, C = undecided, D = disagree, E = strongly disagree). Estes created his pool of statements by asking reading experts to contribute statements they felt indicated a positive or negative attitude toward reading. The scale was checked for reliability with the split-half method.

Estes' scale has many positive features: it is easily administered and scored, it allows for intensity of feeling by using the Likert five point scale, and it can be used in the early stages of the school year.

This investigator criticizes the scale because its statements do not reflect comments by a sample similar to those who will be using the scale (Oppenheim, 1966). It would have been preferable if the item pool had contained statements from the children themselves.

The Likert-type scale offers great possibilities in the measurement of attitudes toward reading. Estes has made progress in developing an instrument using this technique.

Projective

As previously mentioned, the use of the projective technique is usually limited to a clinical setting by trained clinicians. However, a projective technique can give the classroom teachers some indications as to general feelings the child may have toward reading. Boning and Boning (1957) developed a projective test of 42 incomplete sentences. Such sentences as the following ones are examples from that test.

When I have to read, I

To me, books

Comic books

The greatest limitations of such a technique are that it is an individual test which is time consuming and that it requires expert use in its interpretation.

Summary

The literature dealing with measurement of attitudes toward reading is somewhat sparse; however, progress is being made in the development of a few significant attitude instruments. Instruments in the following categories have been reviewed in this section: interview, questionnaire, pairing, observation, Likert-type scale, and projective technique.

CHAPTER III

PROCEDURES

The purpose of the procedures in this study was to develop an instrument or instruments to be used by classroom teachers to measure the reading attitudes of children, grades one through six. The following steps were designed and implemented to accomplish this purpose: (1) selection of instrument type, (2) selection of sample population, (3) pilot work, (4) design of instrument format, (5) preliminary tryout, (6) administration of instruments, (7) readministration of instruments, and (8) statistical tests.

I. SELECTION OF INSTRUMENT TYPE

The requirements established by this researcher for an effective instrument for measuring attitudes toward reading were given in Chapter I. These requirements formed the basis for selection of instrument type. The instrument should be one that

1. requires no reading on the part of the child,
2. can be used early in the school year,
3. requires minimal time for administration and scoring,
4. is reliable and valid,

5. measures important aspects of a child's reading environment,

6. takes into account that attitudes should be measured throughout the formative period (grades one through six), and

7. contains items which are representative of children's feelings toward reading.

Several types of instruments were considered for this study: interview, projective technique, observation, questionnaire, pairing, and Likert-type scale. The interview and projective techniques which require individual questioning of each child were rejected as possible instruments to be used by classroom teachers because of the great amount of time required to administer them. Observation, which requires that an observer record behavior of the child relating to reading, was also eliminated because of the large amount of time involved in observing and recording behavior. In addition, observation requires that an observer be with the children over a prolonged period of time, making it unsatisfactory for use in the opening days of school. A questionnaire which requires a student to write answers to open-ended questions was rejected because it may discriminate against some students because of the reading, writing, and spelling skills involved.

Three types of instruments were considered to be

satisfactory in meeting the established criteria of this investigator: (1) a questionnaire requiring answers of "yes" and "no" to questions about reading, (2) pairing involving the choice between two pictures or two statements about reading and nonreading activities, and (3) the Likert-type scale requiring a choice from five alternatives (strongly disagree, disagree, undecided, agree, strongly agree) to statements about reading. The Likert-type scale was considered superior because it offers five categories of attitude intensity while pairing and the "yes" and "no" questionnaire offer only two choices. A decision was made to develop an attitude scale or scales of the Likert-type for use with children in grades one through six.

II. SELECTION OF SAMPLE POPULATION

The sample population used in the study had the following characteristics:

1. The sample was taken from the area around Knoxville, Tennessee.
2. Grades one through six were sampled since the scale or scales were designed for students in those grades.
3. Both black and white students were sampled so the scale or scales would portray their views.
4. Both sexes were to be used in the sample so

that the scale or scales would contain no sex bias.

5. A sample with a wide range of achievement levels was used so that the scale or scales would represent the views of all ability levels.

6. A wide range of socioeconomic levels was used so that the scale or scales would represent the views of many socioeconomic levels.

7. Both urban and rural children were included in the sample so that the views of both could be represented on the scale or scales.

The administrations of the Knox County and Knoxville City schools were approached by this investigator concerning approval to conduct the study in their schools. Knox County offered a rural population while Knoxville City offered a city or urban population. After this investigator outlined the requirements for the sample population, officials of the two systems recommended schools having such populations. Knoxville City officials recommended Belle Morris and Chilhowee and Knox County officials recommended Mount Olive and Sunnyview.

Interviews were conducted with the principals of the four schools to explain the purposes of the study and the various phases of the proposed research. The principals designated teachers in grades one through six who would participate in the different phases of the study.

III. PILOT WORK

Oppenheim (1966) recommends that pilot work be done with samples comparable to those for whom the attitude scale is designed. According to Oppenheim (1966), the pilot work should consist of interviews whose purposes are twofold: "to explore the origins, complexities, and ramifications of the attitude area in question, in order to decide more precisely what it is we wish to measure" and "to get vivid expressions of such attitudes from the respondent, in a form that might make them suitable for use as statements in an attitude scale." He indicates that 30 or more interviews are needed to decide what is to be measured and to obtain comments for the attitude scale. It was decided that this method would be used to explore the area of reading attitudes of students in grades one through six and to obtain statements which might be suitable for the attitude scale.

Individual interviews were conducted with 60 students in the four schools involved in this study. Table I shows the number of students who were interviewed in each school by grade level. It should be noted that the Mount Olive school has recently been limited to five grades; therefore, there were no sixth graders interviewed in that school.

Since only a few students were needed from each

TABLE I

SAMPLE POPULATION FOR PILOT WORK
(NUMBER PER GRADE LEVEL)

School	Grades					
	1	2	3	4	5	6
Chilhowee	3	3	3	3	3	3
Mount Olive	2	2	2	2	2	-
Sunnyview	2	2	2	2	2	4
Belle Morris	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Total	10	10	10	10	10	10

class for the individual interviews, a method was developed for selecting the sample. For those classes where two students were required, the second boy and the second girl on the class roll were chosen. In those classes where four students were required, the second and ninth boys and the second and ninth girls on the class roll were chosen. When only three students were needed, either two girls and one boy or two boys and one girl were chosen. When absences were encountered the seventeenth boy or girl was used in the sample.

The number of students interviewed with regard to sex and race are as follows: Grades 1 through 3--Blacks-3, Whites-27; Boys-17, Girls-13; Grades 4 through 6--Blacks-5, Whites-25; Boys-15, Girls-15. Sampling of the views of these groups should overcome any sex or race bias in the attitude scale. Since the students were randomly selected, the sample should be normally distributed as to achievement and socioeconomic levels. It is this investigator's contention that the interviews represent rural and urban views and a wide range of socioeconomic and achievement levels.

The interviews were recorded on tape so that the investigator could concentrate on the child during the interview without the disruption of recording responses. All of the 60 interviews were conducted by this investigator and were structured as follows:

1. After preliminary introductions and a statement that the interview concerned reading, the child was asked to name all the places and situations he could think of in which reading is done by boys and girls his age. The responses from this statement were designed to identify possible clusters of places where reading activities occur.

2. Each child was asked to describe someone of his age who liked to read--how he would act and what he would say. Then the child was asked to describe the comments and behavior of someone who disliked reading. Each comment was pursued to elicit possible statements for the attitude scale.

The interviews accomplished the purposes for which they were designed. (1) The investigator became more knowledgeable concerning the reading attitudes and habits of students in grades one through six. It was noted that the places and situations where reading occurs in grades 1-3 differed substantially from those in grades 4-6. Therefore, a decision was made to construct two scales--one for grades 1-3 and one for grades 4-6. (2) Comments were obtained which were suitable for the attitude scales. Students were able to vividly describe those students with positive and negative attitudes toward reading.

IV. INSTRUMENT FORMAT

The next procedure consisted of designing formats for the instruments. The statements obtained from the individual interviews in grades 1-3 were randomly ordered to be read to the respondents. The same procedure was followed for the comments by students in grades 4-6. For grades 1-3, 30 statements were compiled and for grades 4-6, 34 statements were compiled. Appendix A contains the list of statements for grades 1-3 and Appendix B contains the statements for grades 4-6.

Since the decision had been made to use a Likert-type scale with five choices representing intensity of feeling toward statements (strongly disagree, disagree, undecided, agree, strongly agree), the answer booklets for the respondents were designed to allow for these five choices. Beside each item number were five boxes labelled with a 1, 2, 3, 4, or 5. Students were to be told that 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree. The same format was to be used for all grades, one through six. Appendix A contains a copy of the response booklet for grades 1-3 and Appendix B contains a copy of the response booklet for grades 4-6. The only difference in the two booklets is that the grades 1-3 booklet has 30 items and the grades 4-6 booklet has 34 items.

Scores on each item were to vary from 1 to 5 with a 5 being given for a very positive response, 4 for a positive response, 3 for a neutral response, 2 for a negative response, and 1 for a very negative response.

V. PRELIMINARY TRYOUT

After the two scales (one for grades 1-3 and one for grades 4-6) had been developed, a sample population was used to evaluate the suitability of the format. The scale for grades 1-3 was administered to 37 students and the scale for grades 4-6 was administered to 46 students.

The answer formats were found to be unsatisfactory for both scales. Students in grades 1-3 seemed unable to deal with the terms "strongly disagree," "disagree," "undecided," "agree," and "strongly agree." Upper grade students (4-6) were unable to readily translate the numbers (1,2,3,4,5) into words (strongly disagree, disagree, undecided, agree, strongly agree) although the information was written on the chalkboard. Because of the inadequacy of the formats of both answer booklets and the inability of students in grades 1-3 to comprehend the five descriptive terms used for answer responses, a revision of the scales was undertaken.

The scale for grades 4-6 presented the least difficulty in revision. The labels over the five boxes

were changed to letters (SD for strongly disagree, D for disagree, U for undecided, A for agree, SA for strongly agree) instead of numbers (1,2,3,4,5). Appendix D contains a copy of the revised format for the answer booklets for grades 4-6. Students also mentioned that they preferred that the sentences be read with "you" instead of "I" at the beginning. For example, "You like to read" instead of "I like to read." These two minor changes were the only revisions determined to be necessary in the scale for grades 4-6.

The revision of the scale for grades 1-3 was more comprehensive. Since the students had difficulty with the terms "strongly disagree," "disagree," "undecided," "agree," and "strongly agree," some other answer format was necessary. An answer format used by Beere (1973) in a scale to measure attitudes toward school was seen as a possible replacement. Beere's answer format used five faces going from very happy, to happy, to in-between, to unhappy, to very unhappy. After listening to a question beginning "How do you feel . . .," the respondent was asked to mark one of the five faces on the Beere format. Since this format seemed to offer solutions regarding comprehension while retaining five intensities of feeling, the format was adopted for grades 1-3.

The 30 statements obtained from the individual interviews in grades 1-3 were evaluated to see which

statements could be used in completing the question, "How do you feel. . . ." Only 24 of the 30 statements could be revised into questions. Appendix C contains a copy of the revised questions and answer booklet.

VI. ADMINISTRATION OF THE SCALES

The next procedure involved administration of the revised scales to sample populations. Because of the rather small number of statements compiled from the individual interviews (24 for grades 1-3 and 34 for grades 4-6), it was decided to use the entire pool of statements in the administration of the scales. It was hoped that all of the items would prove to be highly discriminating ones and could be retained in the final scales. In the preliminary tryouts, the 30 and 34 statements did not seem to tax the attention span of the children involved. It was anticipated, however, that if any of the items proved to be unsatisfactory ones, such items would be eliminated in the final scales.

The two scales were administered to sample populations from the four schools. Table II shows the number of students by grade level who were sampled. The scales were administered by this investigator in all of the classrooms. The formats of the scales were easily understood by the children in the samples.

TABLE II

ADMINISTRATION OF REVISED ATTITUDE SCALES
(NUMBER PER GRADE LEVEL)

Grade	Number
1	43
2	38
3	43
4	35
5	36
6	29
Total = 224 students	

For grades 1-3, two complete classes were sampled from each grade level for a total of six classes or 124 students. For grades 4-6, three complete classes were sampled (fourth, fifth, sixth) and random selection from two other classes (fourth and fifth), making a total sample of 100 students.

Tests were then scored with 5 points being given for a very positive response, 4 points for a positive response, 3 for a neutral response, 2 for a negative response, and 1 for a very negative response.

VII. READMINISTRATION OF THE SCALES

The scales were readministered to the same samples

in grades 1-3 and 4-6 two weeks later. Such a procedure was followed to establish reliability for the scales with the test-retest method. The scales were readministered in the same environmental setting by this investigator.

VIII. STATISTICAL TESTS FOR VALIDITY

The last procedure involved the use of statistical tests to determine the validity of the scales. Item-analysis was used to determine if the items were discriminating between those respondents with positive attitudes and those with negative attitudes. Correlation coefficients for each item and the total score were calculated.

Validity was further checked by another statistical procedure used by other investigators (Askov, 1970; San Diego, 1961). Teachers of classes involved in the administration of the scales were asked to identify five students whom they considered to have the most positive attitudes toward reading and five students considered to have the most negative attitudes toward reading. A t-test between the means of the two groups (positive and negative) was performed.

IX. SUMMARY

Chapter III has outlined the procedures used to

accomplish the purpose of this study--to develop instruments to measure attitudes toward reading of students in grades one through six. The following procedures were discussed: (1) selection of instrument type, (2) selection of sample population, (3) pilot work, (4) instrument format, (5) preliminary tryout, (6) administration of the scales, (7) readministration of scales, and (8) statistical tests for validity.

CHAPTER IV

ANALYSIS OF THE DATA

The analysis of the data collected in this study can be discussed as follows: (1) individual interviews, (2) scale revisions, (3) administration of the scales, (4) item-analysis, (5) diagnostic clusters, (6) validity of scales, and (7) reliability of scales.

I. INDIVIDUAL INTERVIEWS

As mentioned in Chapter III, 60 individual interviews with children in grades one through six were conducted by this investigator. The interviews were recorded on tape and later typed. The purposes of the interviews were to explore the area of reading attitudes and obtain statements which might be suitable for the attitude scale. Questions were designed by this investigator to obtain this information.

The first structured item calling for a response from those interviewed was the following: "Name as many places or situations you can think of in which reading is done by boys and girls your age." For grades 1-3, responses to this item clustered around certain places or situations as shown in Table III. The table reveals that the most frequently-mentioned place where reading

TABLE III

PLACES OR SITUATIONS WHERE READING OCCURS
(GRADES 1-3)

Categories of Reading Activities	Places
Areas associated with school reading activi- ties	67% mentioned reading in classrooms or schools 43% mentioned reading at their desks 40% mentioned reading in reading group or reading circle 17% mentioned reading at a reading center 7% mentioned reading in a special reading class
Areas associated with nonschool reading activi- ties	77% mentioned reading in their rooms at their homes 30% mentioned reading in their living rooms at their homes 27% mentioned reading at friends' or relatives' homes 23% mentioned reading outside (under a tree, on a swing, in a tree fort, etc.) 23% mentioned reading in the kitchens of their homes 17% mentioned reading in cars or buses 7% mentioned reading on trips
Library reading activities	30% mentioned reading in a library

takes place for students in grades 1-3 is in their rooms at their homes. Of those interviewed, 77 percent suggested their rooms as places where reading occurs. The popularity of their rooms was well-stated by one little first grade girl who made the following comment: ". . . where it's quiet and I can get the words in my head." Also mentioned frequently was the term "school" or "classroom" (67 percent).

Table IV shows the places and situations named by students in grades 4-6, who also frequently mentioned their rooms at their homes (67 percent) but mentioned more often schools or classrooms (73 percent). It can be noted that the terms "reading group" or "reading circle" were not given by this age group, being replaced by "reading class" (13 percent). Libraries are mentioned more frequently by this age group (50 percent) than by the grades 1-3 group (30 percent).

The three clusters of reading activity depicted in Tables III and IV (school reading activities, non-school reading activities, and library reading activities) were found to be convenient to categorize the statements made in response to the second part of the interview which asked the student to describe the comments and actions of those students of his age who liked to read and those who disliked to read. A fourth cluster, entitled "general

TABLE IV

PLACES OR SITUATIONS WHERE READING OCCURS
(GRADES 4-6)

Categories of Reading Activities	Places
Areas associated with school reading activi- ties	73% mentioned reading in schools or classrooms 30% mentioned reading at their desks 13% mentioned reading in reading classes 10% mentioned reading in reading centers 7% mentioned reading in special classes
Areas associated with nonschool reading activi- ties	67% mentioned reading in their rooms in their homes 27% mentioned reading outside (porches, play- grounds, under trees, etc.) 27% mentioned reading at friends' or rela- tives' homes 20% mentioned reading in the living rooms of their homes 20% mentioned reading in cars 20% mentioned reading on trips 17% mentioned reading in dens of their homes
Library reading activities	50% mentioned reading in libraries

reading activities" was added to categorize those comments which applied to all situations in which reading takes place.

From the comments of those interviewed in grades 1-3, the student with a positive attitude . . .

School Reading Activities

- . . . feels happy when in reading group or reading circle.
- . . . likes to read aloud to the class.
- . . . feels happy reading at his/her desk.
- . . . reads a lot of books in the classroom.
- . . . goes to the bookshelf a lot.
- . . . reads a lot in free time.

Nonschool Reading Activities

- . . . likes to read to a parent.
- . . . has lots of books at home.
- . . . likes to read at bedtime.
- . . . reads alone in his/her room at home.
- . . . had rather read than watch TV.
- . . . likes to read with friends after school.
- . . . likes to read on trips.
- . . . had rather read than play outside.
- . . . likes to read outside.

Library Reading Activities

- . . . likes to read in a library.
- . . . likes to check out lots of books.

General Reading Activities

- . . . reads all the time.
- . . . feels happy when he/she reads.
- . . . likes to read in a quiet place.

For grades 1-3, the student with negative feelings or attitudes toward reading . . .

School Reading Activities

- . . . had rather color than read.
- . . . doesn't like to read aloud to the class.
- . . . feels mad or sad when he/she goes to the reading circle.
- . . . doesn't finish the stories he/she starts.
- . . . doesn't like to read in free time.

Nonschool Reading Activities

- . . . doesn't have any books at home.
- . . . had rather go to bed than read a book.
- . . . had rather watch TV than read a book.
- . . . had rather play after school than read a book.

Library Reading Activities

- . . . never gets a book at the library.

General Reading Activities

- . . . doesn't like to read.
- . . . doesn't like books.
- . . . doesn't like stories.
- . . . looks sad.

From these comments given by students in the

individual interviews, 30 statements were written for the attitude scale for grades 1-3. The statements were randomly ordered to be read to the respondents.

Appendix A shows the list of statements compiled from the individual interviews with students in grades 1-3.

The same procedure was followed in examining the comments made by those interviewed in grades 4-6.

Students in these grades indicated that the person of their age who likes to read . . .

School Reading Activities

- . . . reads a lot in his/her free time.
- . . . raises his/her hand to read.
- . . . brings books to school to read.
- . . . becomes so engrossed in a book that he/she forgets what's going on in the classroom.

Nonschool Reading Activities

- . . . likes to read in his/her room at home.
- . . . has lots of books at home.
- . . . had rather read than watch TV at home.
- . . . likes to read in various places outside.
- . . . often reads on trips.

Library Reading Activities

- . . . goes to the library a lot.
- . . . can tell you something about a lot of books.
- . . . checks out lots of books.
- . . . is always reading library books.

. . . checks out interesting books.

General Reading Activities

. . . reads a lot.

. . . talks about books he/she reads.

. . . enjoys reading.

According to the interviews, the student in grades 4-6 who dislikes reading . . .

School Reading Activities

. . . just leaves books in his/her desk.

. . . doesn't like reading class.

. . . doesn't volunteer to read.

. . . is not on the right page or doesn't know the place when the group is reading together.

. . . thinks reading is hard work.

. . . doesn't read in free reading time.

. . . doesn't read the entire chapter--just enough to answer the questions at the end.

. . . feels uncomfortable or under pressure when asked to read aloud.

Nonschool Reading Activities

. . . doesn't have books at home.

. . . had rather play after school than read.

Library Reading Activities

. . . if asked to go to the library, says "no."

. . . doesn't read his/her library books.

. . . is never seen taking home library books.

- . . . doesn't go to the library.
- . . . never gets around to reading the books he/
she checks out.

General Reading Activities

- . . . just looks at the pictures in a book.
- . . . is never seen reading a book.
- . . . reads just a couple of pages and then quits.
- . . . doesn't read.
- . . . never has any books.
- . . . doesn't enjoy reading.
- . . . doesn't talk about reading.

Thirty-four statements were compiled from these comments of students in grades 4-6. The statements were randomly ordered for the completed attitude scale. The statements, which were to be read orally to the students, are shown in Appendix B.

II. SCALE REVISIONS

As mentioned in Chapter III, a minor revision was made in the original statements for grades 4-6 by replacing the word "you" for "I." For example, "I like to read" was changed to "You like to read." However, the original 34 statements were retained for grades 4-6. Appendix D shows the revised statements.

For grades 1-3, a revision of the statements was more extensive. A change from statements to questions

beginning with "How do you feel . . ." resulted in a revised list of only 24 questions for grades 1-3. Appendix C contains a copy of the revised questions.

III. ADMINISTRATION OF REVISED ATTITUDE SCALES

As stated in Chapter III, the revised attitude scales were administered to sample classes in the Knoxville City and Knox County schools. For grades 1-3, the scale was administered to 124 students while 100 students were sampled in grades 4-6. All of the testing and scoring was done by this investigator.

After the classroom teacher had introduced this researcher to the class, students were told that they were to answer some questions about how they felt about certain things. They were assured that their answers would not affect their grades in any way.

Answer booklets were passed out to students. A copy of the answer booklet for grades 1-3 is included in Appendix C and a copy for grades 4-6 is included in Appendix D. The only items needed for the testing were the answer booklet and a pencil.

Instructions for grades 1-3 were as follows: "Your answer booklet is made up of three pages. Page one goes from number 1 to number 9, page two goes from number 10 to number 18, and page three goes from number 19 to 24. Beside each number are five faces, a very

unhappy face, an unhappy face, a face that's neither happy nor unhappy, a happy face, and a very happy face. I will ask you how you feel about certain things and you will put an X on the face that shows how you feel. Suppose I said, How do you feel when you eat chocolate candy? Which face shows how you feel? Someone may have chosen an unhappy face because he doesn't like chocolate candy; someone else may have chosen a happy face because he likes chocolate candy. Now I'll read some questions to you and you mark the face that shows how you feel about what I read. Remember to mark how you feel because everyone does not feel the same about certain things. I'll read each question two times. Mark only one face for each number. Are there any questions? Now listen carefully. Number 1. . . ."

Directions for the scale in grades 4-6 were as follows: "Your answer booklet has two pages. On the first page, numbers on the right-hand column go from number 1 to number 14. Numbers on the left-hand column of page 1 go from number 15 to number 28. Number 29 to number 34 are on the second page. Beside each number are five boxes. Over each box are one or two letters. SD stands for strongly disagree, D for disagree, U for undecided, A for agree, and SA for strongly agree. I will read certain statements to you and you are to mark an X in the box that shows how you feel. Suppose I

said, You enjoy eating chocolate candy. What box would you mark? Someone might love chocolate candy and would mark 'strongly agree'; another person might enjoy it and mark 'agree.' Remember that everyone may not feel the same about the statements so make sure you mark how you feel. Mark only one box for each number. I'll read each statement two times. Are there any questions? Now listen carefully. Number 1. . . ."

After all the tests had been administered, they were scored with a score of 1 to 5 being given to each response and a total score calculated for the individual. A 5 was given for a very positive response, a 4 for a positive response, a 3 for a neutral response, a 2 for a negative response, and a 1 for a very negative response.

On the attitude scale for grades 1-3, a very happy face received a 5 except for numbers 7 and 12. On these items, reverse scoring was employed; that is, a very unhappy face indicated a positive attitude or a score of 5. The possible range of scores on the scale for grades 1-3 was 1x24 (24) to 5x24 (120); the actual range of scores was found to be 45 to 119.

In scoring the scale for grades 4-6, eighteen of the items required the highest score (5) be given to strongly agree. Numbers 1, 5, 6, 7, 10, 11, 12, 14, 16, 18, 25, 26, 27, 29, 31 and 33 required a reverse scoring procedure; that is, a strongly disagree revealed a positive

attitude and received a score of 5. Individual scores on the items and a total score for each individual were calculated. The possible range of scores was 1×34 (34) to 5×34 (170); the actual range of scores was 71 to 152.

IV. ITEM-ANALYSIS

As previously stated in Chapter III, a decision was made to administer all of the items (24 for grades 1-3 and 34 for grades 4-6) to the sample population. However, item-analysis was to be done to ascertain if all of the items on the two scales were discriminating between those respondents with positive attitudes and those with negative attitudes. Oppenheim (1966) states, "Ideally the item-analysis should take place by correlating each item with some reliable outside criterion of the attitude that it is supposed to measure and retaining only the items with the highest correlations." However, he states that since such external criteria are usually never available, "the best available measure of the attitude concerned is the total item pool that we have so carefully constructed." Thus, as suggested by Oppenheim, correlation coefficients for each item and the total score were calculated. The Statistical Package for the Social Science (SPSS) (Nie and others, 1970) was used in computing the correlation coefficients.

It was anticipated that if all of the items were

highly correlated with the total score, all items on the two scales would be retained. The length of the two scales had not seemed to tax the attention span of the students in the tryout sessions. However, if some of the items proved to have very low correlations, such items would be removed from the scales. A final scale containing as few as 20 to 25 items was determined to be adequate in length (Estes, 1971; Oppenheim, 1966).

To evaluate which items would be considered acceptable, a decision had to be made relative to what constituted sufficiently high correlation coefficients. "In everyday usage an r of .80 and above is considered a high coefficient; an r around .50 is considered moderate; and an r of .30 and below is considered a low coefficient" (Downie and Heath, 1970). However, the "question regarding size of r cannot be fully answered without making reference to particular uses of r " (Guilford and Fruchter, 1973). As they point out, the acceptability of the size of an r depends upon the type of coefficient, whether it is a validity coefficient or a reliability coefficient. The validity coefficient is an index of the predictive validity of a test. "Common experience shows that the validity coefficient for a single test may be expected within the range from .00 to .60, with most indices in the lower part of that range" (Guilford and Fruchter, 1973). Downie and Heath (1970) give ranges between .40

and .60 as acceptable for validity coefficients, although they say that many can be lower than this and still be acceptable. A reliability coefficient, comparing two forms of a test or comparing test-retest results, is usually a much higher figure than a validity coefficient. Guilford and Fruchter (1973) state that "in practice we expect reliability coefficients to be in the upper brackets of r values, usually .70 to .98."

Since the item-analysis of the scales produced validity coefficients, the ranges for such coefficients were considered in the decision-making relative to whether items were acceptable or not. Values obtained for the scale for grades 1-3 are shown in Table V and values for grades 4-6 are shown in Table VI.

A survey of the coefficients for items on the scale for grades 1-3 revealed that number 7 (.28) was a poor item and should be eliminated. Two other items, number 5 (.39) and number 18 (.39) were below the .40 recommended by Downie and Heath (1970). These two items were also dropped, making a scale of 21 items. A scale of 20 items was considered to be more acceptable because of format and because such a scale would result in a top score of exactly 100. Therefore, the next lowest item, number 12 (.40), was eliminated, resulting in a final scale of 20 items. As a result of such eliminations, all of the items on the scale for grades 1-3 have coefficients greater than .40.

TABLE V
ITEM-ANALYSIS FOR REVISED SCALE
(GRADES 1-3)

Item	<u>r</u>
1	.48
2	.48
3	.45
4	.41
5	.39
6	.45
7	.28
8	.47
9	.42
10	.47
11	.55
12	.40
13	.67
14	.43
15	.48
16	.68
17	.58
18	.39
19	.49
20	.46
21	.70
22	.60
23	.57
24	.47

TABLE VI
ITEM-ANALYSIS FOR REVISED SCALE
(GRADES 4-6)

Item	<u>r</u>
1	.50
2	.34
3	.42
4	.29
5	.38
6	.53
7	.39
8	.28
9	.42
10	.39
11	.70
12	.55
13	.37
14	.35
15	.17
16	.63
17	.33
18	.40
19	.54
20	.35
21	.32
22	.60
23	.26
24	.26
25	.44
26	.68
27	.42
28	.64
29	.26
30	.44
31	.51
32	.44
33	.44
34	.31

An examination of the coefficients for the items for grades 4-6 showed that 15 items fell below .40. An elimination of all of these items would have produced a scale containing only 19 items. A decision was made that a less stringent cut-off point could be used for this scale and still maintain a moderately acceptable range (above .30) as given by Downie and Heath (1970). A cut-off at .35 eliminated 10 items and gave a scale of 24 items which seemed to be an acceptable number (Estes, 1971; Oppenheim, 1966). Consequently, the following items were eliminated from the scale for grades 4-6: 2 (.34), 4 (.29), 8 (.28), 15 (.17), 17 (.33), 21 (.32), 23 (.26), 24 (.26), 29 (.26) and 34 (.31).

Although the number of items on the two scales was reduced, more discriminating scales were produced as a result of the item-analysis. The two new scales (final scales) are shown in Appendix E (for grades 1-3) and Appendix F (for grades 4-6).

The final scale for grades 1-3 had a possible range of 1X20 (20) to 5X20 (100); the actual range resulting from the sampling was 31 to 100. A mean of 77.58 with a standard deviation of 13.24 was calculated for the final attitude scale for grades 1-3.

For grades 4-6, the final scale could have a possible range of 1X24 (24) to 5X24 (120); the actual calculated range was 42 to 110. The sampling for this

group produced a mean of 78.01 with a standard deviation of 14.75.

V. DIAGNOSTIC CLUSTERS

One of the criteria established by this investigator for a reading attitude instrument was that it should measure important aspects of a child's reading environment. In order to diagnose various areas of a child's reading environment, a teacher must be able to group responses to the various questions or statements on the scales. Diagnostic clusters of reading activity were established by this investigator for teachers to use with the final attitude scales for grades 1-3 and 4-6.

Grades 1-3

- (1) Free reading in the classroom (items 3,17)
- (2) Organized reading in the classroom (items 4,7,8,13)
- (3) Reading at the library (items 1,18)
- (4) Reading at home (items 6,12,15,19)
- (5) Other recreational reading (items 2,5,9,16)
- (6) General reading (items 10,11,14,20).

Grades 4-6

- (1) Free reading in the classroom (items 5,6,15)
- (2) Organized reading in the classroom (items 1,24)

- (3) Reading at the library (items 3,4,9,17,21)
- (4) Reading at home (items 7,10,11,20)
- (5) Other recreational reading (items 12,13,23)
- (6) General reading (items 2,8,14,16,18,19,22).

A teacher may look at several responses to judge a child's attitude in that particular reading activity. For example, on the final scale for grades 1-3, a teacher could examine responses to numbers 4, 7, 8, and 13 to evaluate a child's attitude toward organized reading in the classroom. This investigator feels that this aspect of the scales should be beneficial to teachers.

VI. VALIDITY OF SCALES

Oppenheim (1966) discusses the problems of validity in attitude measurement, stating that there are vast differences in validating factual measures and attitudinal measures. It is much more difficult, he says, to validate attitudinal measures "because of their abstract and indirect nature and because of the absence of suitable criteria."

The literature contains but a small number of attempts at direct validation against a criterion, and we may well ask whether the measures employed as criteria were themselves valid. Such attempts have included the use of essay-type questions, experts' judgments, membership in groups with known policies or interests, pictorial material, interviews and case studies, judgments by friends or co-workers, self-ratings . . . (Oppenheim, 1966).

A review of the measurement scales which have been

developed in reading reveal that few of them have reported validity information. However, the Primary Pupil Reading Attitude Inventory (Askov, 1970) and the San Diego Inventory of Reading Attitude (1961) reported validation information, both using similar methods. For the San Diego Inventory of Reading Attitude, teachers were asked to indicate the three students whom they considered to have the poorest attitudes toward reading and the three students whom they considered to have the best attitudes toward reading. The means of the two groups were compared for statistical significance. Askov (1970) used a similar procedure by asking teachers to list five students with the highest interest in leisure-time reading and the five students with the lowest interest in leisure-time reading.

The above method, comparing the means of two groups, was employed to serve as one indicator of the validity of the attitude scales which had been developed. Classroom teachers were asked to list the five students whom they considered to have the most positive attitudes toward reading and the five students whom they considered to have the poorest attitudes toward reading. For the scales developed in this project, Tables VII (grades 1-3) and VIII (grades 4-6) show the results of a t-test (SPSS program) for significant difference between the means of the two groups chosen by the classroom teachers.

TABLE VII

TEACHER RATING OF ATTITUDES OF STUDENTS
(GRADES 1-3)

Groups Rated by Teachers	Mean	Standard Deviation	N
Positive attitudes	78.70	13.57	30
Negative attitudes	71.80	15.35	30

TABLE VIII

TEACHER RATING OF ATTITUDES OF STUDENTS
(GRADES 4-6)

Groups Rated by Teachers	Mean	Standard Deviation	N
Positive attitudes	81.00	11.98	15
Negative attitudes	69.60	14.33	15

The scale for grades 1-3 shows means of 78.70 (positive group) and 71.80 (negative group) with a t of 1.84, p of .07. For grades 4-6, means of 81.00 (positive) and 69.60 (negative) were found and a t of 2.36, p of .02. If teacher judgment is a valid criterion, the scale for the upper grades appears to be valid while the scale for the lower grades is of questionable validity.

The greatest evidence of the validity of the scales is the manner in which they were constructed. The items for the scales were taken from comments made by children relative to what constitutes positive and negative attitudes toward reading. This fact and the elimination of the least desirable items by item-analysis are regarded by this researcher as the best indicators that both attitude scales are valid.

VII. RELIABILITY OF THE SCALES

Anastasi (1970) recommends that "every test should be accompanied by a statement of its reliability."

Retest reliability shows the extent to which scores on a test can be generalized over different occasions; the higher the reliability, the less susceptible the scores are to the random daily changes in the condition of the subject or of the testing environment (Anastasi, 1970).

There are several techniques which may be used in computing reliability for an instrument or scale. The technique chosen for evaluating the reliability of the

two reading attitude scales which were developed as part of this study was the test-retest method. This method was considered superior to the split-half method of testing reliability often used to check the reliability of reading attitude scales. The split-half method can be used with a single administration of the test. However, such a method does not provide a measure of temporal stability as the test-retest method does.

The interval between the test-retest should always be stated. Retest correlations decrease progressively as the interval between retesting becomes greater (Anastasi, 1970). A two-week period was chosen as a test-retest period for the two reading attitude scales. An attempt was made to have environmental conditions as similar as possible in the two testing situations. Students were in their classrooms on both occasions and scales were administered by the same individual.

Again, the SPSS (Nie and others, 1970) program was used to compute the correlation coefficients between the test and retest scores for the two instruments. Discussion of correlation coefficients in the item-analysis section of this chapter outlined certain parameters for reliability coefficients. Guilford and Fruchter (1973) stated that "in practice we expect reliability coefficients to be in the upper brackets of r values, usually .70 to .98." An analysis of the data of the two scales

reveals that both fall into this range. For grades 1-3, the r obtained was .73 while an r of .87 was found for the scale for grades 4-6. Thus, both scales are recommended as reliable instruments for use with children in those grades.

VIII. SUMMARY

This chapter has analyzed the data collected during this research study. Data from the individual interviews, scale administrations, and reliability and validity studies have been presented.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter is designed to summarize the study, discuss the attitude scales which were developed, recommend possible uses of the attitude scales, and recommend further refinements of the scales.

I. SUMMARY

The study was designed to develop an instrument or instruments to be used by classroom teachers to measure attitudes toward reading in children in grades one through six. Criteria were established by this researcher for such an instrument. It should be one that

1. requires no reading on the part of the child,
2. can be used early in the school year before the teacher becomes familiar with the students,
3. requires minimal time for administration and scoring,
4. is reliable and valid,
5. measures important aspects of a child's reading environment,
6. takes into account the fact that attitudes must be measured throughout the entire formative period, and

7. contains items which are representative of children's feelings toward reading.

Evaluation of various types of instruments which were capable of satisfying this criteria was made. A Likert scale was seen as the most suitable type of instrument.

Sample populations were secured to participate in the various phases of the instrument development. Grade level, sex, race, socioeconomic level, achievement level, and rural and urban characteristics were considered in selecting the sample so that the instrument would reflect a wide range of views. Two schools in Knoxville and two schools in Knox County were used in the study.

An attempt was made in the selection of the population for this study to adequately sample the views of a wide variety of children according to race, socioeconomic level, ability, and urban-rural characteristics. This investigator believes this was accomplished through the use of two urban schools and two rural schools; the assurance of school officials that the four schools contained children with a wide range of socioeconomic and ability levels; and the fact that students were randomly chosen for the pilot interviews and whole classes were used for the test administrations.

Pilot work, consisting of individual interviews

with 60 students in the four schools, was implemented to explore the area of reading attitudes of students in grades one through six and to obtain statements which might be suitable for the attitude scale. The interviews revealed that two scales were needed, one for grades 1-3 and one for grades 4-6. Comments from the students in the interviews were used to compile 30 statements for grades 1-3 and 34 statements for grades 4-6.

Formats were designed for the answer booklets for the scales. Beside each item on the answer sheet, five boxes labeled 1,2,3,4, or 5 were drawn (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree). The same format was designed for all grades, one through six. The answer booklet for grades 1-3 had 30 items and the answer booklet for grades 4-6 had 34 items.

Preliminary tryouts with 37 pupils in grades 1-3 and 46 pupils in grades 4-6 were conducted to ascertain the suitability of the formats. The answer formats were found to be unsatisfactory for both scales. Students in grades 1-3 seemed unable to deal with the terms "strongly disagree," "disagree," "undecided," "agree," and "strongly agree." Upper grade students (4-6) were unable to readily translate the numbers (1,2,3,4,5) into words (strongly disagree, disagree, undecided, agree, strongly agree).

The scale for grades 1-3 was revised to include questions beginning with "How do you feel . . ." and an answer booklet containing a choice of five faces (very unhappy, unhappy, in-between, happy, very happy) beside each item number. Only 24 questions could be compiled from the original 30 statements for grades 1-3.

The scale for grades 4-6 was changed minimally, with letters used to label the answer boxes (SD for strongly disagree, D for disagree, U for undecided, A for agree, and SA for strongly agree) instead of numbers (1,2,3,4,5). In the 34 statements, the word "I" was changed to "You" each time it occurred.

The revised scales were administered to sample populations, 124 students in grades 1-3 and 100 students in grades 4-6. The scales were readministered to the same samples two weeks later to establish reliability of the test.

Statistical analyses were made on the scales. An item-analysis revealed that some of the items were poorly discriminating between those readers with positive attitudes and those with negative attitudes. Four items were eliminated from the scale for grades 1-3 and 10 items were eliminated from the scale for grades 4-6. The final scales consisted of 20 items for grades 1-3 and 24 items for grades 4-6.

Validity of the scales was judged in three ways:

(1) by the fact that the items were compiled from interviews with students comparable to the respondents for whom the scales were intended, (2) by the use of item-analysis to eliminate the least desirable items, and (3) by comparing two groups of students chosen by teachers as having the most positive attitudes and the most negative attitudes toward reading. This investigator feels that the scales are valid ones for use with students in grades 1-6.

Reliability of the scales was established by comparing the test-retest results of the final attitude scales. The scales were found to be satisfactorily reliable.

II. DISCUSSION

Indications of attitudes and attitude change in reading are seen as necessary ingredients of school programs. Proper planning of reading programs can be facilitated by the use of records of pupils' attitudes. Measuring devices to ascertain the attitudes of students toward reading are a vital aspect of such planning. Teachers, school administrators, and others must have reliable and valid tools with which to judge students' attitudes.

It was with this need in mind that a review of the area of attitude measurement and the current measuring

instruments in the field of reading was undertaken. The survey of the available instruments indicated that all were lacking in certain essential qualities when compared with a set of criteria developed for evaluating reading attitude measuring tools. The list of criteria is outlined as follows:

1. The instrument should require no reading on the part of the child.

2. The instrument should be a device which can be used early in the school year before the teacher becomes familiar with the students.

3. The instrument should require minimal time for administration and scoring.

4. The instrument should be a reliable and valid device.

5. The instrument should measure important aspects of a child's reading environment.

6. The instrument should take into account the fact that attitudes must be measured throughout the entire formative period.

7. The instrument should contain items which are representative of children's feelings toward reading.

After careful examination of the above criteria, this researcher endeavored to develop attitude measuring instruments in the area of reading which would satisfy

all of the seven components. The seven components listed above will serve as the framework for discussing the attitude scales which were developed.

1. The scales developed require no reading on the part of the child. The emphasis is on attitude measurement, not reading ability. Since both scales require that the statements or questions be read to the respondents, reading ability or inability will in no way affect the respondents as they mark their answers. The students in grades 1-3 are required only to place an X on one of five faces ranging from very unhappy to very happy. Older students in grades 4-6 must merely recall that SD stands for strongly disagree, D for disagree, U for undecided, A for agree, and SA for strongly agree. Neither scale requires skill in reading as a prerequisite to accurately marking responses to the various items. Consequently, the scales can be used with beginning readers in the primary grades before fluent reading has been developed and with poor or remedial readers in the upper grades who have been unable to develop adequate skills in reading.

2. The two instruments can be used early in the school year before the teacher becomes familiar with her students. Since the scoring of the scales is very objective, a score of 1, 2, 3, 4, or 5 being given for certain responses, there is no need for the teacher to be

familiar with the reading activities of her students. No interpretation of comments or behavior over a prolonged period of time is necessary. With the exception of first grade, the scales could be administered to students in the opening days of school as a "game to see how you feel about reading." From this researcher's experience in administering the scales to over 200 children, certain behavior was exhibited by children over and over in the testing situation. First, the children in grades 1-3 were pleased with the booklets with happy and sad faces on them. They were interested and excited about marking the appropriate face and viewed the administrative procedures as a game since it was associated with the traditional "smiley face." Secondly, students in the upper grades, who at first seemed tense when answer booklets were passed out, showed evident signs of relief and relaxation when they realized that no "facts" were needed to answer the questions. They seemed impressed that their opinions mattered to others. Thus, the scales are seen as effective tools to use in the opening days of school as a "game" for getting students to think about reading.

3. The time required for the administration and scoring of the two scales is minimal. Because the scales are easily administered to a group, the entire class may be tested at one time. No complicated explanations are

necessary in order for the students to respond to the statements or questions and only a pencil and an answer booklet are required as materials. It is estimated that no more than 15 minutes is required for the administration of the test to the entire class. Scoring time would seem to be about three minutes per answer booklet. In a classroom of 30 students, a teacher could administer and score the attitudes of students in her classroom in less than two hours. Diagnosis of problem areas, such as reading in organized classroom activities, reading at home, or other areas, necessitates more time but would not be required for all students in a classroom. Concentration on those students who seem to have the most serious problems would receive a teacher's first priority of time.

4. Studies were conducted as part of this project to ascertain the validity and reliability of the two scales. Reliability was determined by using the test-retest technique. The scales were administered to sample populations and readministered two weeks later to the same populations. A correlation coefficient (r) was calculated for each scale with the scale for grades 1-3 having an $\underline{r}$ of .73 and the scale for grades 4-6 showing an $\underline{r}$ of .87. Both coefficients are satisfactorily high to judge the tests as being reliable ones. The scales were judged to have validity because of the way in which they were

constructed, using the comments of children as the items on the scales and using item-analysis to eliminate the most undesirable items. Tests of means between those students judged by teachers to have positive and negative attitudes were also used to evaluate the validity of the test. The scale for grades 4-6 achieved a significant difference between the two groups at the .05 level but the scale for grades 1-3 failed to achieve the .05 level (p of .07). Overall, the scales seem to have the validity and reliability needed for reading attitude measuring devices.

5. Procedures were used which would ensure that the scales would measure important aspects of a child's reading environment. In the individual interviews, a directed statement to the children asked them to name all the places or situations they could think of where reading was done by boys and girls their age. The cluster areas which emerged from this included areas associated with school reading activities, nonschool reading activities and library reading activities. The comments made by students in the individual interviews as to behavior of students with positive and negative attitudes were grouped under the above three clusters of activities with a fourth cluster entitled "general reading activities" added to categorize those statements which applied to all types of reading activities.

In the area of reading achievement, the value of diagnosis of specific skill areas, such as consonant sounds, vowel sounds, auditory discrimination, and others, is accepted by most classroom teachers. Such a diagnosis seems applicable to attitude measurement as well. This idea was used in the attitude scales by giving clusters of questions which could be used to diagnose specific areas of positive or negative attitudes. In this way, a teacher can look at certain numbered items on the scales to determine how a student feels about reading in a certain area. The following clusters of questions can be examined on the final scales:

Grades 1-3

- (1) Free reading in the classroom (items 3,17)
- (2) Organized reading in the classroom (items 4,7,8,13)
- (3) Reading at the library (items 1,18)
- (4) Reading at home (items 6,12,15,19)
- (5) Other recreational reading (items 2,5,9,16)
- (6) General reading (items 10,11,14,20)

Grades 4-6

- (1) Free reading in the classroom (items 5,6,15)
- (2) Organized reading in the classroom (items 1,24)
- (3) Reading at the library (items 3,4,9,17,21)

- (4) Reading at home (items 7,10,11,20)
- (5) Other recreational reading (items 12,13,23)
- (6) General reading (items 2,8,14,16,18,19,22).

6. The scales take into account the fact that attitudes must be measured throughout the entire formative period (grades 1-6). Many scales are designed only for grades 2-3 or 2-4, missing some of the critical times in a child's reading development. Grades 4-6 is seen as an especially critical time as much of the reading done in these grades is content type reading in science and social studies with little emphasis placed on reading as a subject area. While beginning first grade students will not be candidates for measurement, certainly by mid-year testing could reveal possible problems areas.

These two scales which span the school years from grade 1 to grade 6 offer promise in helping to cultivate positive attitudes in children. Teachers can use records of attitudes over these six years to overcome any problem areas and send students to seventh grade with positive feelings toward reading.

7. Efforts were made to have the scales contain items which are representative of children's feelings toward reading. The assumption was made that the best source of how children feel about reading is the children themselves. Consequently, the comments from children were used as the basis for the attitude scales. Since

reading in grades 1-3 was seen to be sufficiently different than in grades 4-6, two scales were produced. For example, children in grades 1-3 spend much of their reading time in reading groups or circles while older children have less formal reading activities. The library does not play as significant a role with younger children as it does with the older students. Younger children read to parents while such behavior is not noted in older children. The actual wording of comments by the two groups is different. Therefore, a need for two scales was seen with each scale containing items which are representative of the group for whom the scale is intended.

The two scales, when judged against the criteria which were established, seem to be appropriate devices for measuring attitudes toward reading for children in grades 1-6.

III. RECOMMENDATIONS FOR USES OF THE SCALES

Throughout this report, the need for an attitude scale for classroom teachers has been stressed. The primary need has been seen as a tool which could be used in diagnosis and prescription in the classroom. Although this need is thought to be the primary one, other uses of the instruments can be recommended.

1. The scales could be used for research purposes

by the classroom teacher and the college researcher in judging the merits of new programs. Today a part of many decisions of whether a particular program or method is successful or not is judged by its effects on the attitudes of students toward reading. For example, programs such as Uninterrupted Sustained Silent Reading (Oliver, 1970) could be judged as to merit on the basis of changes in attitudes over time. Methods such as individualized programs, basal programs, and open classrooms could include a measurement of attitude change as part of their evaluation. With the emphasis on the humanistic or affective realm in the schools today, the time seems right that attitude measurement should become a part of the research projects in reading.

2. The scales are also recommended as a tool in evaluating materials such as books and games. For example, programs have been introduced involving the use of paperback books as a motivating agent. The Reading Is Fundamental Program (Burrucker and Becker, 1970) is such an innovation which could be evaluated by the use of attitude measurement. The effects of learning centers and game centers could be evaluated to see if they are bringing about positive results.

3. Evaluation of school programs is currently being pursued in many up-to-date school systems. Such schools are attempting to evaluate their goals and to

determine whether or not such goals are being met. If a school's goal is to promote positive attitudes toward reading, some means must be used to measure the attitudes of the students. An attitude measuring device is seen as a necessary part of the evaluation of any school reading program.

4. Counselors, school psychologists, special reading teachers, and other service personnel in the schools can use information obtained from reading attitude scales in working with children to overcome certain frustrating experiences. School psychologists will often find students' problems stem from a poor attitude and avoidance of reading. Problems in reading have effects not only in all academic areas, but also in emotional areas as well. Special teachers of reading usually recognize the fact that negative attitudes toward reading are often the primary obstacles to effective communication between teacher and student in the reading act. Once the barrier of negative attitudes is overcome, skills can be more easily acquired in learning to read.

5. Program directors or coordinators can use information from attitude scales in planning reading programs. A change in textbook adoption may bring about increased positive or negative attitudes. Certain classes may have an unusually high number of students with poor

attitudes toward reading. Work with the teacher of those students may produce an atmosphere more conducive to building positive attitudes. In these and many other ways, reading coordinators can effectively use scales which measure attitudes toward reading.

IV. RECOMMENDATIONS FOR FURTHER REFINEMENT OF SCALES

This investigator recommends that further research be conducted to refine the scales which have been developed in this study. Several areas of research are recommended:

1. A refinement of the wording of the statements and questions would be an area for further research. Several variations of a question or statement could be tried with a sample population to determine which wording is most acceptable to children and to determine any significant differences between the variations. It would be desirable if the content of the questions or statements remained the same with variations occurring only in the wording.

2. Research and study could be undertaken to design attractive and efficient formats for the answer booklets. An artist could experiment with various ways of designing the unhappy and happy faces. A booklet which is attractive for the students and easy for the teachers to score would be the objectives for such research and study.

3. Further validity studies would be beneficial. The opinion of experts (reading teachers, professors of reading, and others) could be used as an additional check on the validity of the scales. Students could be interviewed and asked to name five students in their room whom they considered to have the most positive attitudes toward reading and five students considered to have the most negative attitudes toward reading. Comparisons could be made of the scores of these two groups of students on the attitude scales. The scales could also be correlated with other available attitude scales.

4. Because this was an unsponsored research project, the size of the samples was necessarily restricted. Larger sampling, stratified sampling, and other specialized sampling could be undertaken.

The attitude scales developed in this research study are seen by this investigator as significant contributions to the area of reading attitude measurement. Further research and refinement of the scales should make them of greater use to classroom teachers and others in the education field.

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APPENDIXES

APPENDIX A

TRYOUT STATEMENTS FOR GRADES 1-3

1. I don't enjoy going to the library.
2. I seldom read in my room at home.
3. I feel happy when I'm reading a book.
4. I'd rather play outside than read.
5. Usually I don't pay attention in reading group.
6. I go to the book shelf or reading table a lot.
7. I check out lots of books at the library.
8. I seldom finish a story.
9. It's fun to read to someone at home.
10. I'd rather color than read a story.
11. I can't find any good books at the library.
12. The stories in my reading book are very good.
13. Usually I read only part of a story.
14. I read a lot in my free time.
15. I don't like to read out loud to the class.
16. Usually I'd rather just sit at my desk instead of reading.
17. I like to read with a friend after school.
18. I read as often as I can.
19. When reading time is over, I want to keep reading.
20. I don't enjoy stories in books.
21. Everytime I have free time at home, I pick up a book and read.
22. I like to find a quiet place to read.
23. Usually I'd rather go to sleep than read a book at bedtime.
24. It's fun to read with a friend.
25. I'm always happy when it's time for reading.
26. I enjoy reading when I go on a trip.
27. I'd rather watch TV than read.
28. I would like to have lots of books at home.
29. Everytime I can, I read at my desk.
30. I enjoy reading outside when it's warm.

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APPENDIX B

TRYOUT STATEMENTS FOR GRADES 4-6

1. I feel uncomfortable when I'm asked to read in class.
2. I like to find a quiet corner at home and read.
3. I feel happy when I'm reading.
4. It's fun to read a book outside when it's warm.
5. Sometimes I forget about library books that I have in my desk.
6. I don't check out many library books.
7. I don't read much in the classroom.
8. I often volunteer to read during reading class.
9. When I have free time at school, I usually read a book.
10. I seldom have a book in my room at home.
11. I'd rather look at the pictures in a book than read it.
12. I check out books at the library but never have time to read them.
13. I wish I had a library full of books at home.
14. I seldom read in my room at home.
15. When a friend asks me to go to the library, I say, "yes."
16. I'd rather watch TV than read.
17. I sometimes get so interested in a book that I don't notice what's happening in the room.
18. I'd rather play after school than read.
19. I talk to friends about books that I have read.
20. I like for the room to be quiet so I can read in my free time.
21. I usually raise my hand to read in class.
22. I read several books each week.
23. I can find lots of interesting books at the library.
24. I often bring books to school to read.
25. Most of the books I choose are not interesting.
26. I don't read very often.
27. Reading is work.
28. I enjoy reading at home.
29. Often I am not on the right page when the group is reading together.
30. I enjoy going to the library.
31. Often I start a book, but never finish it.
32. Adventures in a book are more exciting than TV.
33. I wish I could answer the questions at the end of the chapter without reading it.
34. I often read when I'm on a trip.

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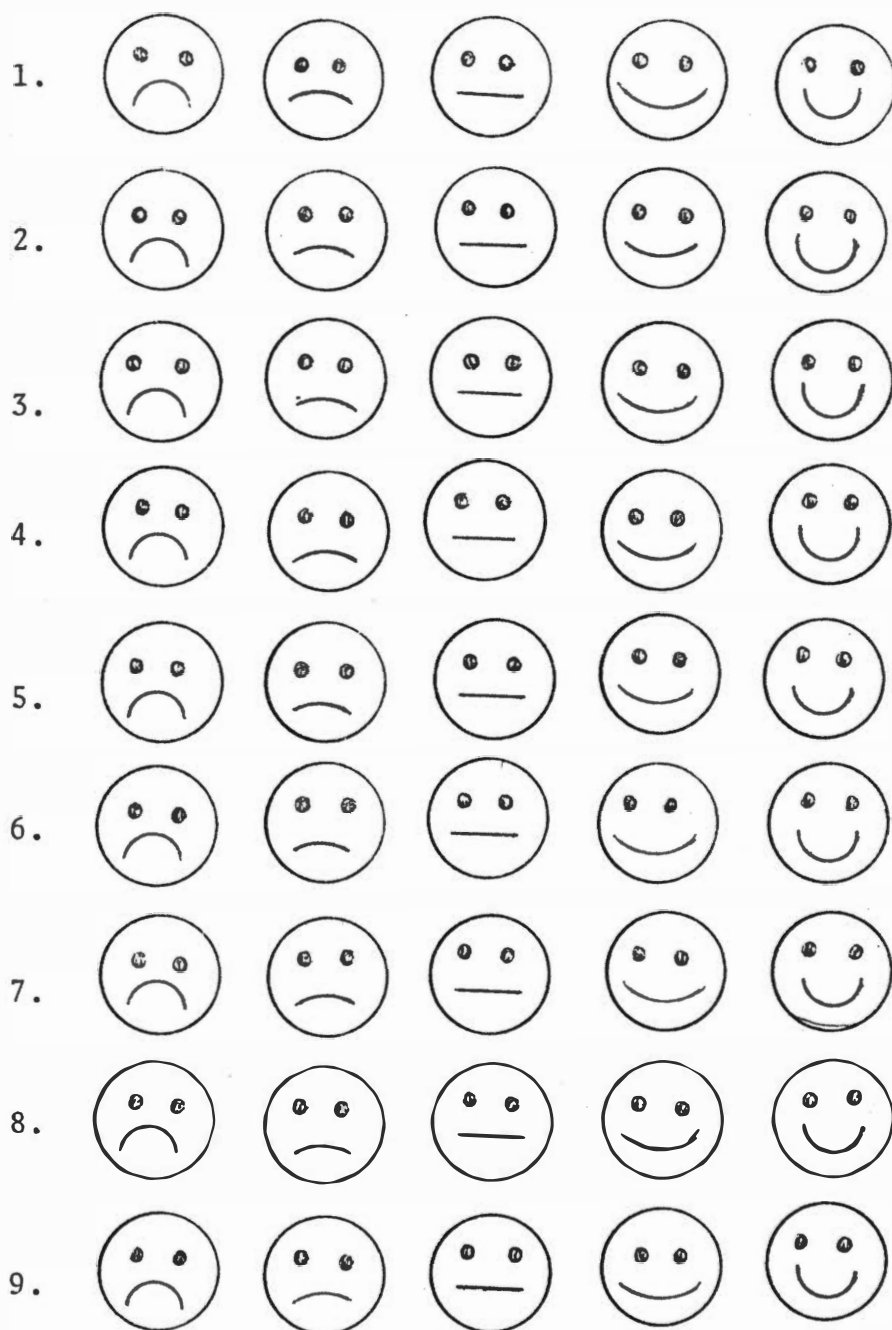
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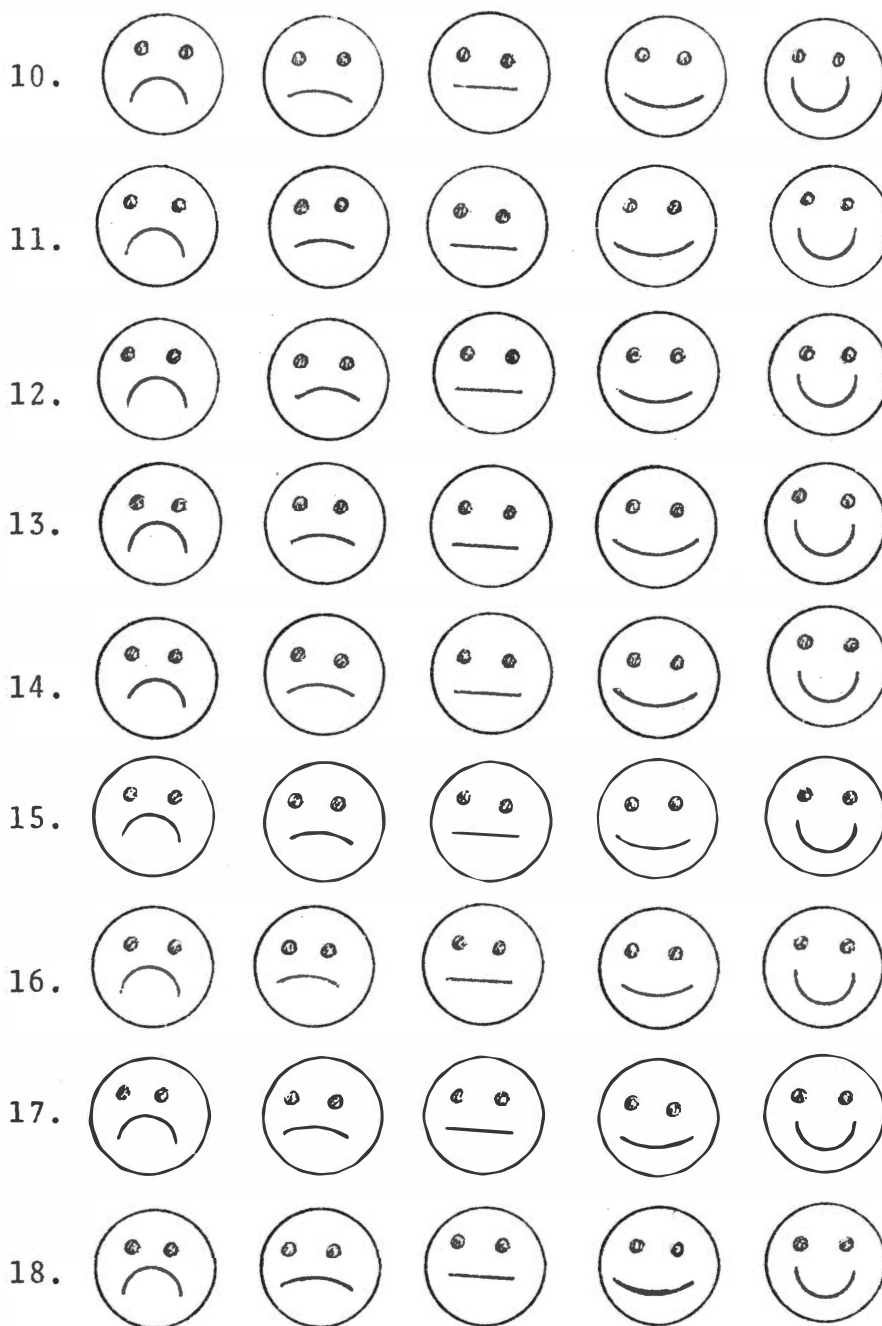
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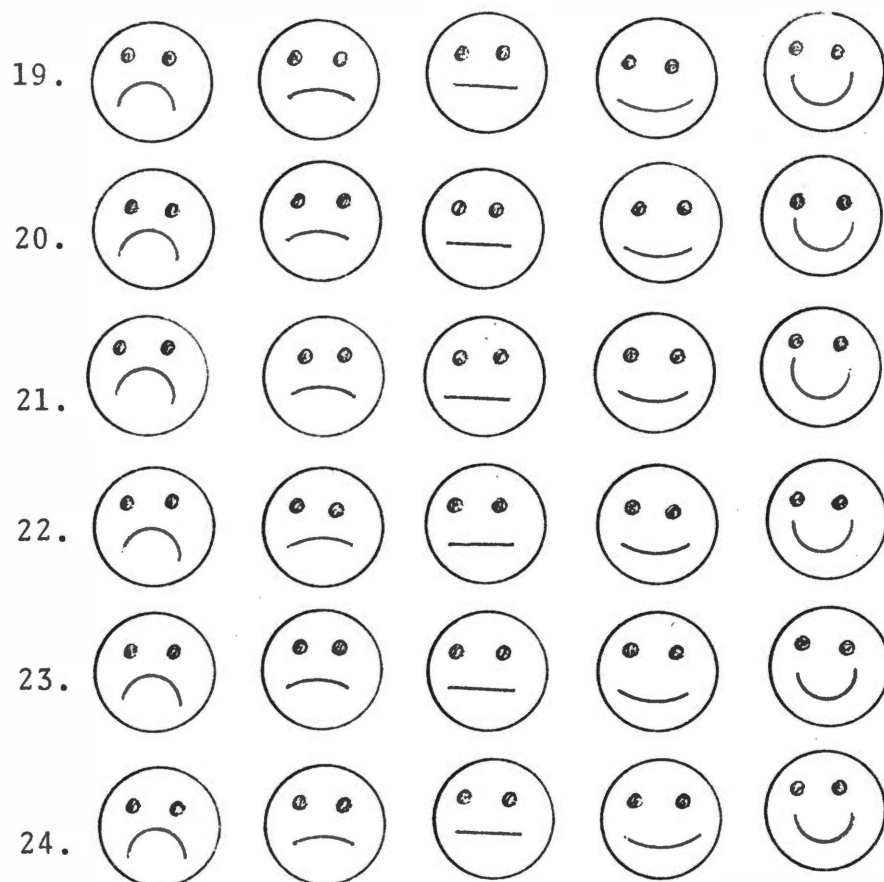
REVISED QUESTIONS FOR GRADES 1-3

How do you feel . . .

- (1) when you go to the library?
- (2) when you read instead of playing outside?
- (3) when you read a book in free time?
- (4) when you are in reading group?
- (5) when you go to the bookshelf or reading table?
- (6) when you read instead of watching TV?
- (7) when you don't finish a story?
- (8) when you read to someone at home?
- (9) about the stories in your reading book?
- (10) when you read out loud in class?
- (11) when you read with a friend after school?
- (12) when reading circle (group) is over?
- (13) when you read stories in books?
- (14) when you read in a quiet place?
- (15) when you read a story at bedtime?
- (16) when it's time for reading circle (group)?
- (17) when you read on a trip?
- (18) when you check out books at the library?
- (19) when you have lots of books at home?
- (20) when you read outside when it's warm?
- (21) when you read at your desk at school?
- (22) when you find a book at the library?
- (23) when you read in your room at home?
- (24) when you read instead of coloring?







APPENDIX D

REVISED STATEMENTS FOR GRADES 4-6

1. You feel uncomfortable when you're asked to read in class.
2. You like to find a quiet corner at home and read.
3. You feel happy when you're reading.
4. It's fun to read a book outside when it's warm.
5. Sometimes you forget about library books that you have in your desk.
6. You don't check out many library books.
7. You don't read much in the classroom.
8. You often volunteer to read during reading class.
9. When you have free time at school, you usually read a book.
10. You seldom have a book in your room at home.
11. You'd rather look at the pictures in a book than read it.
12. You check out books at the library but never have time to read them.
13. You wish you had a library full of books at home.
14. You seldom read in your room at home.
15. When a friend asks you to go to the library, you say "yes."
16. You'd rather watch TV than read.
17. You sometimes get so interested in a book that you don't notice what's happening in the room.
18. You'd rather play after school than read.
19. You talk to friends about books that you have read.
20. You like for the room to be quiet so you can read in free time.
21. You usually raise your hand to read in class.
22. You read several books each week.
23. You can find lots of interesting books at the library.
24. You often bring books to school to read.
25. Most of the books you choose are not interesting.
26. You don't read very often.
27. Reading is work.
28. You enjoy reading at home.
29. Often you are not on the right page when the group is reading together.
30. You enjoy going to the library.
31. Often you start a book, but never finish it.
32. Adventures in a book are more exciting than TV.
33. You wish you could answer the questions at the end of the chapter without reading it.
34. You often read when you're on a trip.

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APPENDIX E

FINAL SCALE FOR GRADES 1-3

How do you feel . . .

- (1) when you go to the library?
- (2) when you read instead of playing outside?
- (3) when you read a book in free time?
- (4) when you are in reading group?
- (5) when you read instead of watching TV?
- (6) when you read to someone at home?
- (7) about the stories in your reading book?
- (8) when you read out loud in class?
- (9) when you read with a friend after school?
- (10) when you read stories in books?
- (11) when you read in a quiet place?
- (12) when you read a story at bedtime?
- (13) when it's time for reading circle (group)?
- (14) when you read on a trip?
- (15) when you have lots of books at home?
- (16) when you read outside when it's warm?
- (17) when you read at your desk at school?
- (18) when you find a book at the library?
- (19) when you read in your room at home?
- (20) when you read instead of coloring?

APPENDIX F

FINAL SCALE FOR GRADES 4-6

- (1) You feel uncomfortable when you're asked to read in class.
- (2) You feel happy when you're reading.
- (3) Sometimes you forget about library books that you have in your desk.
- (4) You don't check out many library books.
- (5) You don't read much in the classroom.
- (6) When you have free time at school, you usually read a book.
- (7) You seldom have a book in your room at home.
- (8) You would rather look at the pictures in a book than read it.
- (9) You check out books at the library but never have time to read them.
- (10) You wish you had a library full of books at home.
- (11) You seldom read in your room at home.
- (12) You would rather watch TV than read.
- (13) You would rather play after school than read.
- (14) You talk to friends about books that you have read.
- (15) You like for the room to be quiet so you can read in your free time.
- (16) You read several books each week.
- (17) Most of the books you choose are not interesting.
- (18) You don't read very often.
- (19) You think reading is work.
- (20) You enjoy reading at home.
- (21) You enjoy going to the library.
- (22) Often you start a book, but never finish it.
- (23) You think that adventures in a book are more exciting than TV.
- (24) You wish you could answer the questions at the end of the chapter without reading it.

VITA

Betty Sue Heathington was born in Gorman, Texas, on December 17, 1937. She holds a Bachelor of Science in Elementary Education from The University of Texas at Austin and a Master of Science in Elementary Education from Purdue University, West Lafayette, Indiana.

She has taught in the public schools in Austin, Texas; Wilmette, Illinois; and West Lafayette, Indiana. She is a member of the International Reading Association, Tennessee Council of IRA, National Council of Teachers of English, and Phi Delta Kappa.

Mrs. Heathington is married and has one daughter.