

CUMULATIVE READING DEFICITS OF  
FRESHMAN COLLEGE STUDENTS

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## PREFACE

This study is concerned with the diagnosis and analysis of disabled college readers using the case-study method. The primary objectives are to determine specific reading deficiencies of disabled college readers; to describe reading behaviors of disabled college readers; and to identify factors contributing to reading deficiency.

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## CHAPTER I

### INTRODUCTION

Today's society is a changing society. With the advent of societal changes and reform, more American youth with varied backgrounds, experiences, and abilities are enrolled in institutions of higher education. Many of these youths are ill prepared, impoverished, and unable to meet the academic demands of college. Moreover, many of these youth are deficient in skills of reading and many suffer from a more basic deficiency.

Today, society requires that each person be educated at a level exceeding that required by society a decade ago. This requirement places responsibilities on educational institutions at all levels and demands a change in certain aspects of the educational process. One aspect, faced with the responsibility of change, is reading instruction at the college level; for with changes in educational requirements and the composition of students have come increased demands for reading instruction to meet the varied needs and abilities of all students. Hence, college teachers of reading are faced with a very real challenge.

Reading instruction at the college level must begin to consider the nature of society, the nature of the reader, and the particular needs of the individual. With these considerations will come the recognition of a need to effect a change in methods of identifying and



and classifying college readers. Thus, reading at this educational level will then begin to focus on the disabled college reader.

#### Need for the Study

A central focus of reading research for the last decade has been on identifying causal factors contributing to reading disabilities of elementary school children. That there is a plethora of information pertinent to the elementary reader is unquestionable. But insufficient is ample data on the disabled college reader.

The sparse information on the disabled college reader led the researcher to ask many questions. Some of these questions follow: What are the characteristics of a disabled college reader? Are disabled college readers correctly identified? How do disabled college readers become able college readers? Are reading programs providing instruction to meet the needs of disabled college readers? Do disabled college readers become able readers as a result of post-test score gains? What other or additional method of evaluation could be used to better identify the disabled college reader? And can disabled college readers become able college readers? It is the researcher's point of view that reading disabilities at the college level can be remediated provided a different diagnostic approach is utilized and instruction is planned accordingly.

A discussion of reading disabilities and evaluation in reading of necessity involves recent or current views of what is involved in reading. Reading has been defined in terms of the process (Smith, 1971); in terms of the psychological, sociological, and philosophical principles of reading (Dechant, 1961, Deboer and Dallman, 1965); and Goodman (1970)

defines reading as a complex process by which a reader reconstructs, to some degree, a message encoded by a writer in graphic language. The substrata-factor theory of reading explains reading as the development and dynamic functioning of an intellect that is increasingly able to transform symbolic stimuli into meaningful mental processes, by various mediational systems, in order to efficiently and effectively comprehend and react to the thoughts of another as expressed in his writing (Singer, 1965).

With the foregoing as background, within the researcher's perspective and in accord with Wilson (1967):

. . . reading involves coordinated physical action, manipulation of a variety of word recognition skills, understanding of simple and complex comprehensional patterns, reaction of the printed page in terms of behavior modification, and ultimately a wide range of experiences.

Further, reading is a two-part process in which the components are highly interrelated. This reading process involves decoding the printed message into silent or articulated speech, making associations, and comprehending the idea of the message.

Brought more in accord with the basic premise of the writer, reading is viewed as a process involving specific cognitive factors, i.e. cognitive clarity. These cognitive factors encompass the decoding process, visual and auditory perception, linguistic categories of the written language, and understanding.

Reading skills thought to be indicative of and necessary at the college level have been aptly described by Strang, McCullough, and Traxler (1961). These skills have been listed under eleven categories with a number of sub-categories.

If a beginning college student can be viewed as an adult reader, then the findings and conclusions of Adult Literacy Programs and/or Adult Basic Education Programs might serve to identify the specific deficiencies of these students. In so doing, it may also be concluded that essential reading skills of adults are not likely to be very different from those of children (Askov, Otto, and Fischbach, 1971). Also, the authors state that modification in format and wording of certain tests may be the main requirement in shifting from an elementary school to an adult program context.

Beyond this discussion is the relationship of the reading process to the characteristics of the learner. Since college students are young adults, are different psychologically, socially, more intellectually mature, and possess many relatively set patterns of behavior, an understanding of the student's values, ideals, and aspirations are most important. Likewise, an understanding of the student's socio-economic background and his intellectual-cultural involvement would yield valuable information when assessing disabled college readers. Accepting the more current definitions of reading and the reading process leads to differentiation between measurement and diagnosis.

Recent research in:

. . . educational diagnosis has tended to shift from what Wark (1965) called "Dean Data" and/or "Norm Data" to a study of (individuals), individual self-concept, personal self-expectations and the inter-relationships between idiosyncratic cognitive styles and concomitant personality variables as they affect learning. Thus, diagnostic techniques incorporating analysis of individual learning styles with opportunities for applying the results of these analyses to realistic learning tasks. . . appears to be much more . . . useful.

Similarly, measurement should not concern itself with change but with performance of the desired behaviors, that define criterion performance,

from which traits can be inferred (Anastasiow, 1972). Understanding measurement as thus defined requires an understanding of diagnosis. Bond and Tinker (1973) define diagnosis as measuring and studying the symptoms to determine possible causes in order to understand the nature of the disability. Harris (1961) states that diagnosis in reading means a careful study of the condition to determine its nature and causation, with the aim of correcting or remediating the difficulty. Bond and Tinker and Harris confirm that diagnosis in reading should be directed toward improving instruction. Too frequently the measurement procedure has failed to establish a hierarchy of relationships among and between the correlates of reading disabilities (Strang, 1968). Further, the relationship of certain factors to reading achievement or disabilities for the individual student has not been seen and utilized.

Examining research at the college level on the diagnosis of disabled readers indicates no clear distinction in measurement of disabled reader's and the more able reader's abilities. Unfortunately, the literature revealed only one new technique and that was measurement of "flexibility."

The typical reading tests used by most colleges do successfully differentiate among groups of college students. The instrument does measure these differences reliably and does have a certain predictive validity, but there is a question as to the content and concurrent validity of such tests. The limitations of standardized tests for measuring individual performances and needs of all students are questionable (Wardrop, 1972; Fledmessenger, 1971; and Stake, 1971). Consequently, college teachers of reading might address themselves to the questions, "What relationship does this test have to the many facets of

the reading process?" (Kingston, 1965) "Does the instrument pinpoint the specific needs of this student?" "Will the instrument lead adequately to planning instruction for remediation?" Standardized reading tests are useful, and they do perform necessary and important functions; but their use as a prescriptive tool for disabled college readers is doubtful. Therefore, if instruction in reading is to be used for the particular needs of the student, it is imperative that effective tests of specific skills be used (Ramsey and Harrod, 1969).

Another viewpoint of diagnosis is that of Bond and Tinker (1973). They state that diagnosis is of two types--etiological and therapeutic. Brueckner and Bond (1955) classify diagnosis on three levels: general diagnosis, analytical diagnosis, and case-study diagnosis. A general diagnosis is made by studying the results of general survey or achievement tests in order to locate weaknesses. An analytical diagnosis explores systematically specific strengths and weaknesses in reading. A case-study diagnosis is a careful study of reading skills and abilities. Bond and Tinker (1973) state further that a case-study diagnosis is necessary for many disabled readers and it might even be valuable for all of them.

According to Bond and Tinker (1973), case-study diagnosis consists of a careful study of reading skills and abilities; an appraisal of the mental, physical, and sensory characteristics of the reader; assessing attitudes toward reading and adjustment to the reading problem; and making an evaluation of environmental surroundings. Making use of this appraisal procedure, the nature and specific characteristics of any particular problem in subskill development would be discovered. Also, vision, hearing, and physical characteristics in need of correction

would be revealed as well as socioeconomic factors contributing to the disability, thus locating the limitations. The information obtained from such a diagnosis would then determine the remedial instruction needed and provide a means for the disabled college reader to acquire essential competencies needed at this educational level. Likewise, this approach would lend itself more appropriately to the wide differences and divergencies present among students in college reading classes.

The researcher contends that more often than not college students are screened by using a survey test, forced into a pre-selected program course, and treated as if they were a member of a homogeneous group. It is almost an undeniable fact that most college programs make little or no serious effort to adapt instruction to the specific needs and deficiencies of the student.

The researcher proposes that reading disabilities of disabled college readers, as reflected at the college level, fall beyond the usual screening approaches presently used. And for these types of students, there is little chance to remediate their reading deficiencies using the traditional method of assessment.

#### Statement of the Problem

The purpose of this study is to diagnose and analyze disabled college level readers, using a case-study method, (1) to determine specific reading deficiencies of these students, (2) to describe reading behaviors of college disabled readers, and (3) to identify factors contributing to reading deficiency.

The investigation sought to provide answers to the following questions:

1. What specific reading disabilities do disabled college level readers exhibit in comprehension, word recognition skills, and rate?
2. What specific disabilities do disabled college readers exhibit in oral reading?
3. What reading behaviors aid in describing the disabled college reader?
4. What socioeconomic factors are common to reading deficiencies?
5. What attitudes and interests are representative of disabled college readers?
6. What type of self-concepts do disabled college readers exhibit?

#### Procedures for Data Collection

The data for the study was collected through standard procedures for a case-study diagnosis. This included securing background information of environmental factors, assessing emotional and personality characteristics, determining interest and attitude, determining aptitude, and delineating physical disabilities. In addition to these measures, formal and informal reading evaluations were made.

The subjects used in the study were four beginning college freshmen. All of the subjects were black males and enrolled in a remedial reading course. The study was conducted at a small church-related liberal arts college, located in a city of the Southwest.

The Iowa Silent Reading Test, Advanced Form, the initial instrument used in the study, was administered to beginning college freshmen during freshman orientation week. This orientation period took place during the week prior to the first week of classes in January, 1974. All students entering for the first time were required by the college to take the test, and at that time, students were asked to complete the initial questionnaire.

Students used as subjects were selected on the basis of the results of the cut-off scores for remedial classes. Students were then contacted and asked to participate in the study. Refusals were replaced with additionally selected names.

During the third and fourth week of the second semester, the records and files of the Registrar's Office, Financial Aids Office, and Student Personnel Office were examined to complete the information needed for parent-school interviews and questionnaires. Diagnosis for the case-study report began during the fifth and sixth weeks of the second semester.

#### Operational Definitions

The following definitions were used in the study.

Case Study: A case study is the synthesis and interpretation of the requisite information concerning the subject's reading disability.

Reading Behavior: Responses or performances of the reader during the reading act.

Disabled Reader: A college student who, for a variety of reasons, has failed to grow in reading in accord with his years in school and exhibits specific retardation in one or more reading subskills.

Diagnosis: A diagnosis is the identification of weaknesses and/or strengths in reading.

Socioeconomic Status: Socioeconomic status includes the negative and/or positive social, cultural, economical, and educational factors in the environment.



### Limitations of the Study

The following are major limitations of the study:

1. The study was limited to four case studies.
2. No information was obtained from the elementary schools.
3. The community relationships of the family were undetermined.
4. Emotional and personality characteristics were limited to findings from two tests. A complete psychological examination was not made.
5. High school teacher questionnaires and interviews were limited to teachers recommended by the subject and whose whereabouts were known.

### Assumptions

The following assumptions were basic to the study.

1. The subjects used for the study were of normal intelligence.
2. The instruments used for the diagnosis were valid and reliable for black students.

### Significance of the Study

The results of the study should serve as a catalyst for college level reading diagnosis. Likewise, college reading teachers should be challenged to begin case-study diagnosis of disabled readers.

## CHAPTER II

### REVIEW OF SELECTED LITERATURE

#### Introduction

A survey of pertinent literature for this study revealed few recent studies directly related to an investigation of specific reading deficiencies of black college readers. For the most part, most of the recent studies were concerned with investigating the effectiveness of particular instructional techniques, evaluating the effectiveness of a program, comparing freshman college students' reading skills with illiterate adults, examining flexibility, determining the effects of instruction in study skills on reading improvement, and studying the Cloze technique as a means of improving comprehension. The literature as related to the specific concern of the study was sparse. Consequently, the review of the literature will center on representative college studies of a global nature but with implications for the present study.

A study designed to show a composite picture of the college reader that utilized a series of studies was conducted by Holmes (1954). The purpose of this study was to investigate basic factors underlying speed and power of reading and to establish deficiencies as related to disabilities in speed and power of reading. Forty group and individual tests were administered to 200 college students. These tests included measures of intelligence, reading rate, reading comprehension, word

attack skills, language facility, small motor skills, academic techniques, eye movements, and personality traits. The data were analyzed by correlation procedures. The correlations were converted into z scores, tested for significance, and combined into descriptive syndromes of student characteristics.

The findings of this study supported the hypothesis that slow readers (poor rate) at the college level do exhibit characteristically similar deficiencies. Slow readers exhibit slow reaction time for small motor and oculomotor movements, slow and inaccurate discrimination of printed stimuli, limited vocabulary, and poor word attack skills.

The non-powerful (poor comprehension) readers exhibited essentially the same characteristics as the slow readers, with the exception that low verbal intelligence test results were more characteristic of the non-powerful reader. Further, Holmes (1954) found no relationship existent between reading disabilities and personality traits.

Perry (1959) in a twenty-year experiment at Harvard using freshmen concluded that it appeared that most college students can learn to read better. He also concluded that instruction that assists these students to do so does not center in the mechanics of reading.

Hill (1959) in a study known as the Iowa Study using 164 freshmen established the extent to which selected measures of vocabulary, word attack skills, reading comprehension skills, verbal intelligence, non-verbal intelligence, personality traits, socioeconomic status, factors of pre-college experiential background, and academic status would discriminate, individually and in multiple combinations, between university freshmen with adequate reading comprehension and university freshmen with inadequate comprehension. The subjects were grouped according to

adequate comprehension on a criterion test of reading comprehension. The adequate comprehension group, 77 freshmen, obtained a percentile rank of thirty-five on the criterion test and the inadequate comprehension group, 87 freshmen, obtained a percentile rank of fifteen or below on the criterion test.

The basic procedure in analysis of the data consisted of comparing the performance of these two groups on the various measures of the independent variable. Due to the dichotomous nature of the sample of the subjects, this comparison was accomplished through the use of correlation procedures. The underlying purpose of the study was to investigate the hypothesis that disability in reading comprehension at the college level is indicative of a more general and more basic deficiency than college reading comprehension per se.

Findings of this study were that verbal intelligence, non-verbal intelligence, socioeconomic status, psychopathic deviation, masculine-feminine interest, high school academic achievement, college academic achievement, reading vocabulary, and word attack skill discriminated significantly between the adequate and deficient readers. Also, in comprehension skills of details, interpreting idea relationships, and inferring tone and intent, discriminated significantly between the two groups even when using material equivalent to the seventh grade readability.

The study also found that when various measures were combined into several factor multiples called "powerful discriminators" these factors made a greater contribution to discrimination between the two groups. The specific pre-college experiences were not good discriminators.

This study pointed out the rate of attrition and academic probation occurring among the deficient comprehension group, inspite of the fact that they participated in special corrective reading classes.

The findings of these studies serve to show some of the efforts made at the college level to assess specific reading deficiencies of college students.

Sanders, Osborne, and Green (1955) conducted a study to analyze the extent to which college students with "pure urban," "pure rural-farm," and "mixed" backgrounds differed with respect to scholastic aptitude, reading attainment, knowledge of fundamentals of algebra, personality characteristics, preferred high school subjects, university school, scholastic standing in high school graduation class, and academic performance based on average first-quarter marks.

The study used as subjects 373 men and 210 women in the freshmen class at the University of Georgia. Tests used in the study were the American Council on Education Psychological Examination, the Cooperative Reading Test, the Georgia Algebra Placement Test, and the Bill Adjustment Inventory. The urban-rural classification was obtained from an information blank filled out by each student. Other information was obtained from the records of the University registrar.

The summary and findings of the study were based on each test and subtest of each examination with inter-group comparisons for each sex separately. In general, the study found urban groups markedly excel and mixed groups slightly excel rural groups according to the measures of scholastic aptitude, reading skills, and knowledge of the fundamentals of algebra. On these same comparisons, urban men excel men of mixed backgrounds, although the reverse was found for women. On the

adjustment inventory it was shown that first-year college men of mixed background are more submissive and retiring in social contacts than men with city backgrounds, and rural women students are better adjusted to their home surroundings than women students of urban backgrounds. Also, the three groups did not differ significantly on measures of scholastic attainment.

A more recent attempt to assess college readers' skills and/or disabilities was a study by Cashman (1966). This study was concerned with determining whether or not reading disability could be attributed to impairment associated with brain damage; whether or not an organic group would make less improvement in reading comprehension scores than a nonorganic group after having been subjected to a reading improvement program. The variables considered in the study were mental ability, cerebral dominance, visual anomalies, and personality.

The subjects who participated were 138 male college freshmen attending a large Catholic university in the state of New Jersey. The materials used were Bender Gestalt Visual Motor Coordination Test; the Otis Quick Scoring Mental Ability Test; Gamma, Form FM; the Cooperative English Test, C2; Reading Comprehension, Higher Form R; the Keystone Visual Survey Tests, Form No. 5; the Keystone, No. 46, Telebinocular, (R); a modified version of the Harris Tests of Lateral Dominance; and the Minnesota Multiphasic Personality Inventory.

Conclusions of this study were that none of the variables studied inhibited ability to improve reading comprehension, and that subjects classified according to the variables studied could improve reading comprehension by taking a reading improvement program. Also, it was

concluded that impairment associated with brain damage and reading disability were related.

Papalia (1968), using 33 low achieving, high potential male freshman college students, designated as passport and comparison, studied the relation to each group on selected personality, interest, attitudinal and biographical traits. The primary purpose of the study was to determine a way to help youth with educational handicaps succeed in college.

The findings of the study showed the low-achieving, high-potential group had a lower rate of college retention. These findings indicated the effects of a semester-long specialized program in reading and study skills.

Magee (1968) found that college-age adult persons who possess a higher degree of skill in phonics also are better readers, are better spellers, and have a better knowledge of word meanings. He also concluded that intensive instruction in phonics at the college level can produce gains in phonics ability.

Magee's study used 56 undergraduate students to determine interrelationships between phonic knowledge, spelling performance, reading achievement, extensive vocabulary, and intelligence. Also, the study sought to determine whether a group receiving intensive phonics instruction would show significant gain on the variables studied when compared with a similar group receiving no phonics instruction.

Russell (1973) in a study investigating the relationships of oral reading error patterns between functionally illiterate adults and developmental children found that there was a significant similarity of error patterns between functionally illiterate adults and developmental

readers for all categories, except syllabication at the frustration level when reading level was held constant. Russell suggested that oral reading behavior is unique to a developmental level and little difference exists in skill deficiencies exhibited by readers common to a reading level, regardless of chronological age.

Johnson and Cortwright (1969) in an exploratory investigation found that better readers made more use of the visual-visual modality, and the less proficient reader utilized cross-modality comparisons. The study investigated cross-modality matching within the context of word recognition skills among beginning adult readers. This was done to assess the possibility that a deficit in cross-modality matching might be potentially useful as a diagnostic and predictive indicator of the rate at which adults learn to read.

The subjects were 178 adults enrolled in basic reading classes in Flint, Michigan. Prior to collection of data, all students were given the Adult Basic Reading Inventory. Although only 31 of the subjects remained for the retest, the proportion of dropouts was about the same for the original high and low groups. The word recognition tasks involved the comparison of words under four conditions and two types of judgments: (1) auditory-auditory match, (2) auditory-visual match, (3) visual-auditory match, and (4) visual-visual match. One judgment involved responding to two words and indicating whether they were the same or different. The other judgment involved the presentation of one word, then the presentation of two words, with the subject indicating which of the two words was the same as the stimulus word.

Knight and Alcorn (1969) investigated and compared the performances of reading achievement and intelligence of 24 educationally disadvantaged



adults and two groups of elementary children. The first group of children was drawn from a low socioeconomic level, and the second, from a high socioeconomic level. There was a stronger correlation between the intelligence and reading scores of the children than between these two adult scores. Although the adults scored considerably lower on the I. Q. test, they did as well as one elementary group and better than the other on the reading test. Cloze tests and the Adult Basic Learning Examination (ABLE) appeared to measure the intellectual abilities associated with reading more effectively for adults than did the IPAT Culture-Fair Test of Intelligence. The adults scored highest on the Cloze test, and the high socioeconomic group scored higher than the children from the low socioeconomic group. Results indicated that the format and content of instruments to be used with adults are important factors. It was also indicated that educationally disadvantaged adults are able to utilize the limited reading skills they do possess to a greater extent than might be indicated with standardized tests.

Lenning (1970) conducted an exploratory attempt to relate educational growth in college with factors which the student brings with him into the college situation, as distinguished from relating educational growth to actual collegiate experiences. Educational growth was operationally defined as estimated true test-retest change on the American College Testing (ACT) Program composite scores. Two estimates were made for each student. One utilized Lord's "Best Estimate" Method, the other a "Base-Free" Method presented by Tucker, Damarin, and Messick. Considerably and varied data were available for the entire sample of 799 freshmen at one college.

The method used for the study included an analytic control for sex difference. Results pointed up significant variables for the total group, as well as for men only and women only. An emphasis on studying the sexes separately and a reaffirmation of the potential fruitfulness of research on this topic concluded the study. The findings of this research were inconclusive.

Pittman (1960) in a study designed to describe statistically the achievement of 415 college students, classified according to the particular remedial courses taken during their first year in college, compared grade point averages of the group's first and third year of school, and found no justification for remedial college courses in English and mathematics. The influences and implications of the study were that students in a black environment need early identification of disabilities; need additional instruction in high school; and grade-point averages have limited reliability. Pittman also inferred that black educators and black colleges need to experiment with techniques necessary to establishing what disabilities actually exist, and the line of action to take to remediate the disabilities.

Schubert (1953) studied 100 college students and found retarded readers often showed difficulty in initiating serious study, felt inadequate, were uninterested in the material, and tended to be excited during recitation in class. He also found that retarded readers showed poor study habits, were nervous in class and when reading orally.

Schubert used 50 retarded readers matched with 50 unselected cases of the same sex and age. The retarded readers were enrolled in a reading clinic course, and the control group consisted of students enrolled in a college child development course.

A study not related to investigating specific reading deficiencies of college students but serving to point up the existent problem, and the diversity in reading levels is one by Hagstrom (1971). In this study the differences between the reading abilities of 359 community-college students in selected classes and the readability difficulty of the texts used in those classes were examined. The Diagnostic Reading Test, Form A, was administered to the subjects, and results showed that 35.9 percent of the population read at or above grade level 13; 33.5 percent read at grade levels 10, 11, or 12; 19.1 percent read at junior-high level; and 11.4 percent read below grade level 7. Thus, almost two-thirds of the subjects were reading below grade level. The texts used in the 16 classes were analyzed according to the Dale-Chall Formula, and 14 of the 29 texts were more than one grade level above the reading ability of the students who used them. Five of the texts were rated at grade level 16, or graduate level, and the classes in which they were used had an average reading ability rate from grade levels 10.9 to 12.2. It was recommended that teachers give more attention to the readability levels of the texts they select, and that publishers assist this effort by advertising the readability levels of specific texts and other materials.

Martin (1967) in a study-report of freshmen enrolled at New York Community College reported that the average freshman at NYCC was reading at the 12.6 grade level, or .4 grade levels below the national norm for college freshmen. Half of the freshmen were at the forty-second percentile and below with the range varying between the first and 99th percentile. Twenty percent of the freshmen scored at or below the 10.5 grade level, the cut-off point used by the Reading and Study Skills

Center. Martin concluded that the reading ability of the 1967 class was essentially the same as that of all preceding freshmen classes.

The review of the literature has served to manifest the need for investigations designed to identify specific reading deficiencies of college students. Also, to reveal the almost lack of current information on factors related to disabilities of college students.

## CHAPTER III

### METHODOLOGY

The participants in the study were four full-time male college freshmen. All of the subjects were black, college freshmen and enrolled in a small church related liberal arts college in the Southwest.

Each subject was a graduate of an accredited high school. Two subjects were 1972 graduates, one subject was a 1973 graduate, and one subject graduated in 1967. The student population of the high schools attended by the subjects ranged from 500 to slightly over 3,000. The ages of the subjects were 19, 19, 20, and 24. One subject had served in the armed forces for two years. All of the subjects were of average height and weight. One subject was from a moderate sized city in the South, two subjects were from large cities in the East, and one subject was from a large city in the Southwest.

All subjects were enrolled in a special reading course for disabled readers. College majors of the subjects were physical education, music, religious education, and theology.

All of the subjects received some form of assistance to defray the cost of college. This assistance was from Social Security, Veteran's benefits, Federal loan, and Work-Study. Two of the subjects earned additional money serving as an apprentice in ministry.

### Locale of the Study

This investigation was conducted at Bishop College during the second semester of the academic year 1973-74. The school is a small church-related liberal arts college located in Dallas, Texas. The college is coed, non-sectarian and interracial in its selection of students, faculty, and staff.

Although the college has students from a number of states and foreign countries, the greatest number of them come from low income families in the south and southwest. This geographical concentration implies that the major portion of the students are products of a disadvantaged educational, social, and economical environment.

### Investigative Procedures

The data for the study was collected by means of procedures for a reading case study diagnosis. The steps in the procedure were:

1. Obtainment of background information on environmental factors,
  - a. Home
  - b. High School
  - c. College
2. Assessing emotional and personality characteristics,
3. Determining aptitude,
4. Delineating physical handicaps,
5. Evaluating reading performance, and
6. Determining interests and attitudes.

Permission to conduct this study was obtained from the Dean of the College, and the study began in January with the administering of the Iowa Silent Reading Tests, Advanced Form, Cm. This test was administered

to all beginning college freshmen during freshman orientation week. At this time, students were asked to respond to a questionnaire which was designed to secure background information and to denote a willingness to participate in the study. A sample of the letter and questionnaire are shown in the Appendix. Forty-seven questionnaires were returned expressing a willingness to participate. Final selection of possible subjects was made on the basis of the results of the survey-screening test. Ten students were contacted to participate. Two were unwilling to participate because of class schedules, two were willing to participate but could not because of choir rehearsals. Thus, the study began with six subjects, two of the six chose not to continue.

Diagnosis was begun during the fourth week of the semester. All tests were administered on the college campus in the Reading Program Clinic room. Tests were administered in the afternoons between the hours of two and five on Monday, Wednesday, and Thursday. This was occasioned by the subjects' class schedules and work. These testing sessions were individual. All tests used in the study were administered and scored by the researcher.

Records and files of the Registrar's Office, Financial Aids Office, Student Personnel Office, and Health Office were examined to supply the necessary information needed for the study. Interviews were conducted with the subject's peers, selected college teachers, and parents. Questionnaires were sent to all high schools of the subjects, selected high school teachers, and a home information form was sent to all parents. Following the completion of the testing, interviews, and receipt of questionnaires and other forms used, the researcher

categorized and interpreted the data to present the findings in the form of a case study report.

### Assessment Instruments

The assessment instruments used in the study were of two types; formal and informal, group and individual. For the most part, each subject was administered the same test. The tests used in the study are listed below under each diagnostic category.

#### Emotional and Personality

The California Test of Personality, Secondary Form AA, 1953 Revision by Ernest W. Tiegs, Willis W. Clark, and Louis P. Thorpe, was administered to aid in identifying or revealing the extent of maladjustment, conflict, inadequacy, and insecurity of the subjects' personality. The test is organized around the concept of life adjustment as a balance between personal and social adjustment.

The Personal Adjustment half of the test is composed of six components: (1) Self-Reliance, (2) Sense of Personal Worth, (3) Sense of Personal Freedom, (4) Feeling of Belonging, (5) Withdrawing Tendencies, and (6) Nervous Symptoms. The items in the second half of the test, designated as Social Adjustment are (1) Social Standards, (2) Social Skills, (3) Anti-Social Tendencies, (4) Family Relations, (5) School Relations, and (6) Community Relations.

The results of the test may be interpreted in standard scores, percentiles, and stanines. An examination of the deviation of each percentile and low score gives an indication of maladjustment or



adjustment of the individual. The test is an appropriate group measure as well as individual.

The Tennessee Self-Concept Scale, Clinical and Research Form, by William H. Fitts was administered to determine how the subject perceived himself or evaluated himself in relation to his general personality and state of mental health. The scale is composed of 90 items, equally divided as to positive and negative items. The remaining 10 items comprise the Self-Criticism Scale.

The Profile Sheet gives a Self-Criticism Score (SC); a True-False Ratio (T/F); a Net Conflict Score; a Total Conflict Score; a Total Positive Score; a Row Score; a Column Score; a Variability Score (V); a Column Variability Total Score; a Row Variability Total Score; a Distribution Score (D), an Empirical Scale Score; and a Number of Deviant Signs (NDS).

The Scale is self-administering for either individuals or groups, and can be used with subjects age 12 or higher, having at least a sixth-grade reading level. The Scale is applicable to the whole range of psychological adjustment from healthy, well-adjusted people to psychotic patients.

By plotting the scores on the Profile Sheet a visual image of the discrepant or conflict area is presented. The specified limits for these scores are shown, enabling the researcher or clinician to better interpret and understand the subject.

### Aptitude

The California Short-Form Test of Mental Maturity, Level 5, by Elizabeth F. Sullivan, Willis W. Clark, and Ernest W. Tiegs, was

administered to provide information about the functional capacities that are basic to learning and to aid in determining the extent of disability reflected by socioeconomic status and education. This test consists of seven-test units, grouped according to four factors, and the items are all multiple-choice type. The four factors and the test units are: Factor I - Logical Reasoning (Test 1, Opposites; Test 2, Similarities; Test 3, Analogies); Factor II - Numerical Reasoning (Test 4, Numerical Values; Test 5, Numerical Problems); Factor III - Verbal Concepts (Test 6, Verbal Comprehension); Factor IV - Memory (Test 7, Delayed Recall). Within these factors, the seven-test units are grouped into two sections, Language and Non-Language, that differentiate between verbal and nonverbal responses. A mental age and intelligence score may be obtained for each section. Results may be interpreted in percentiles or stanines. Also, the test results may be interpreted in terms of between factors and between sections.

The Wechsler Adult Intelligence Scale by David Wechsler, an individual test, was administered as an assessment of general mental ability, and as an aid in predicting the behavior of the subjects. The Wechsler Adult Intelligence Scale has eleven subtests, six comprising the Verbal Scale and five the Performance Scale. The Verbal Scale subtests are Information, Comprehension, Arithmetic, Similarities, Digit Span, and Vocabulary. The Performance Scale subtests are Digit Symbol, Picture Completion, Block Design, Picture Arrangement, and Object Assembly.

The Wechsler Adult Intelligence Scale yields a raw score for each subtest administered. Each raw score must be converted to a scaled score by means of a table. The total scaled score for each Scale yields

an appropriate Intelligence Quotient. A Full Scale Intelligence Quotient is obtained from the total for the Verbal Scale and Performance Scale.

### Reading

The Nelson-Denny Reading Tests, Form A, by M. J. Nelson and E. C. Brown, Revised by James I. Brown, was administered for broad screening purposes. The test is a group measure which comprises three subtests: Rate, Vocabulary, and Comprehension. The test, designed for use in grades nine through sixteen, yields a percentile rank and a grade equivalent.

The Gates-MacGinitie Reading Tests, Survey E, Form 1M, designed for grades seven through nine, was given to ascertain a truer limit for the subjects on a screening measure. The test is a group test and comprises three subtests: Speed and Accuracy, Vocabulary, and Comprehension. The test results, or raw scores, may be converted into standard scores, percentiles, and grade equivalents.

The Gray Oral Reading Tests, Form A, 1963, was selected to aid in the diagnosis of oral reading difficulties and as an adjunct to the silent reading measures. Further, the test was used as a part of the total battery of devices in the assessment of the reading deficiencies of the subjects.

The diagnostic purposes of the Gray Oral Reading Tests are to determine the level of sight vocabulary, the ability to decipher unfamiliar words, and to establish the relationship of speed of reading to the number and types of errors made. The test yields a general level of reading, a measure of fluency and accuracy of oral reading and

provides insights into the reader's behavioral characteristics. Also, the test is comprised of thirteen graded paragraphs, each increasing in difficulty.

The test is administered individually, and the errors are recorded as the passage is read. The time in seconds for reading each passage and the total number of errors are used to determine the grade equivalent in oral reading.

The legend for recording errors are as follows: (1) aid; (2) gross mispronunciation of a word; (3) partial mispronunciation including wrong sounds of letters or groups of letters, omission of one or more elements, insertion of an element, wrong syllabication, wrong accent, inversion, and examiner pronouncing a part of a word; (4) omission of a word or group of words; (5) insertion of a word or group of words; (6) substitution of one meaningful word or several for others; (7) repetition of one or more words; and (8) inverting or changing word order.

Subtests of the Durrell Analysis of Reading Difficulty, New Edition, by Donald D. Durrell, were administered to discover weaknesses and/or strengths in word recognition skills, visual discrimination, visual perception, and auditory perception. Subtests administered were Word Recognition and Word Analysis, Visual Memory of Words, Hearing Sounds in Words, and Phonic Spelling of Words. The test is an individual test and yields a grade norm.

The Roswell-Chall Diagnostic Test of Word Analysis Skills was administered to identify specific strengths and/or weaknesses in word recognition. The skills measured by the test are considered fundamental word analysis skills. The subtests are (1) Single Consonant Sounds, (2) Consonant Combinations, (3) Short Vowels, (4) Long Vowels and Rule

of Silent e, (5) Vowel Combinations, and (6) Syllabication of compounds made of two sight words, two syllable words, three and four syllable words.

The results of the test are a qualitative evaluation in word analysis skills and is appropriate for persons who are reading at approximately second to sixth grade level. Further, the test indicates the reading levels at which the skills measured by the test are usually taught and mastered. Definitive grade norms and specific criteria regarding the number of errors made are not given for the test. A percentage of errors may be used for interpretation of results.

The test is administered individually. The testee is given a copy of the test and the testor records the errors on another copy. All subtests are read aloud horizontally, except subtest III, items on this part are read in pairs. A correctly read item is unmarked, an incorrect item is recorded as phonetically as possible above the item. Items omitted are circled, and those not presented are crossed through.

The Wide Range Achievement Test, Vocabulary Section, 1946 edition, by J. F. Jastak and S. R. Jastak, is an individual test, measuring the ability to recognize and pronounce words in isolation at sight. The test may be used with persons from kindergarten through adult. The results of the test give a basal, performance, and frustration level. The score at each level may be converted to a grade score. The basal level represents the level of functioning with no difficulty; the performance level is the level representative of satisfactory word recognition; frustration is the level in which word recognition breaks down completely.

Silent Reading Diagnostic Tests, 1970 edition, by Guy F. Bond, Bruce Balow, and Cyril Hoyt, appropriate for groups and individuals, designed to determine varied abilities in silent reading, was administered as a measurement of specific word recognition skills. The test is composed of eight separate subtests and gives a quantitative assessment of overall level of word recognition, a measurement of skills of visual word recognition, and the level attained in phonic knowledge. Each subtest is timed separately. The results of the test may be interpreted in grade equivalents. The test is appropriate for grades 1.5 through 7.0 and disabled readers above this level.

The New Developmental Reading Tests, Intermediate, Form B, by Guy F. Bond, Bruce Balow, and Cyril Hoyt, administered as a power test, was used to aid in determining the strengths and/or weaknesses in basic reading vocabulary and comprehension. A battery of tests, designed for grades 4, 5, and 6, consists of Basic Reading Vocabulary, Reading for Information, Reading for Relationships, Reading for Interpretation, and Reading for Appreciation. The combined scores on Parts II and III yields a Literal Comprehension score; the sum of the scores on Parts IV and V provides a score reflecting Creative Comprehension; and the total score on Parts II, III, IV, and V yields a measure of General Reading Comprehension. Grade equivalent norms are given for raw scores.

The SRA Reading Record, Second Edition, by Guy F. Buswell, a timed group test, designed for grades 6 to 12, was used as part of the diagnostic battery to assess everyday reading skills. The Reading Record gives scores for Reading Rate, Reading Comprehension, Everyday Reading Skills, Vocabulary, and a Total Score. Raw scores on each subtest may

be interpreted in percentiles, and the Total Score may be interpreted in grade equivalents.

The Diagnostic Examination of Silent Reading Abilities, Rate of Comprehension Scale, Form D, by M. J. Van Wagenen, administered to the subjects as a group, was used to determine the number of words read per minute. The number of paragraphs read correctly determines the number of words read per minute. The words per minute may be interpreted according to a grade equivalent. The test is designed for elementary through senior high school.

An additional measure of rate was determined by the Basic Reading Rate Scale, Form A, by Miles A. Tinker. This test, group or individual measure, gives a word per minute score based on the number of correctly marked responses.

Oral Reading Passages of at least 200 words each, taken from material appropriate for the purpose and administered to each subject individually, were used to analyze oral reading errors. Passages used below the 5.0 level were from Stuever (1969). Passages above this level were obtained from Selections from The Black, a college science book and a college social science book. Readability levels of the passages were established using the Dale-Chall readability formula. These passages extended through grade 12.

The oral reading errors were classified according to an experimental classification system, used in the Oklahoma State University Reading Center, devised by Darrel D. Ray. This system was visual perception, visual-auditory perception, sight word errors, behavioral and language errors.

Each oral reading was tape recorded and timed for the error analysis. Each subject read passages beginning at the instructional level and read through the frustration level. Passages at the frustration level were read twice.

### Physical

The Keystone Visual Survey Test, Keystone View Company, was given to each subject as a visual screening test. The test is designed to ascertain the usable vision at far and near point in different areas of eye functioning.

An audiometer was administered to determine whether there was a hearing deficiency. The threshold of audibility for both ears may be determined as well as a loss of audibility.

College medical and health records were examined to determine physical handicaps, glandular dysfunction, childhood illnesses and diseases, family medical history, and other factors pertinent to the diagnosis. The health record indicated the number of times the subject had visited the clinic and the reasons.

### Interests and Attitudes

The California Study Methods Survey was administered to disclose external and psychological environmental factors that could serve to further inhibit adequate school achievement, and to determine how attitude and habit affect school performance.

The California Study Methods Survey is a self-report inventory revealing the essential nature of the study methods and attitudes of the student. There are 150 standardized questions reflecting the consistent



differences in study methods and attitudes between high-achieving and low-achieving students. The Survey yields four scores: (1) Attitudes Toward School, (2) Mechanics of Study, (3) Planning and System, and (4) Verification. The Verification items are distributed throughout the survey and are used to determine the validity of the responses. A score of 17, identified as a critical score, validates the responses.

Results of the Survey may be interpreted in standard scores, percentiles, and stanines. The scores and percentiles will indicate areas needing special investigation and establish possible causal factors for low achievement. The responses to the questions are either "Yes" or "No." The test is a group test but may be administered individually.

An Informal Reading Interest and Activity Inventory was administered to identify and evaluate the specific interest patterns. The Inventory, in three parts, provided a means to discern interest, attitudes, habits, and tastes. The Inventory contains checklist items, open-end items, and degree of interests.

#### Background Information

Background information on each subject was obtained by five means.

These were:

1. College records
2. Questionnaire
  - a. High school teacher
  - b. College teacher
  - c. High school reading teacher
3. Report forms
  - a. Home
  - b. High school
  - c. Subject

4. Rating scale
  - a. Subject's peer
  - b. High school teacher
5. Interview
  - a. College teacher
  - b. Parent
  - c. Peer

### Summary

All data obtained from the assessment instruments, college records, rating scales, and interviews were compiled, classified, analyzed, and interpreted for each subject by the researcher. A case-study report for each subject was written. The findings of these reports are presented in Chapter IV.

## CHAPTER IV

### FINDINGS OF THE STUDY

#### Introduction

The detailed descriptive findings of the case studies were presented to answer the following questions:

1. What specific reading disabilities do the subjects exhibit in skills of comprehension, vocabulary, and rate of reading?
2. What specific disabilities do the subjects exhibit in oral reading?
3. What overt performances of the subjects describe reading behavior?
4. What socioeconomic factors common to reading deficiencies are commonalities of the subjects?
5. What are the attitudes and interests of the subjects?
6. What kind and/or type of self-concept do the subjects exhibit?

Since this study was concerned with certain environmental factors, assessing emotional and personality characteristics, determining interests and attitudes, establishing aptitude, identifying physical disabilities, and evaluating reading performances of disabled college readers, the findings of each aspect were reported.

#### Environmental Factors

Findings of environmental factors of the home, secondary school, and college, obtained through questionnaires, interviews, and observations, are presented according to these categories. The tabulated and

categorized findings of each category with the edited interview findings are presented below.

#### Home Background

Subject 1. The family of subject 1 included three brothers, whose ages were 22, 18, and 16, and two younger sisters, ages 14 and 12. The subject's favorite among his sisters and brothers was a sister age 14.

The family lived in a small city in the South, in a seven-room comfortable house. The neighborhood was black and was considered a good neighborhood.

The parents had been married for twenty-five years. Both parents were natives of the city and had been childhood sweethearts. Both parents were college graduates, had a master's degree, and were employed in the public schools of the city. The annual income of the family was \$22,000.

The parents of subject 1 appeared happy, relatively free from tension and anxieties, and willing to discuss the subject. During the interview, both parents exhibited love and respect for each other, and neither parent appeared to be the more dominant person.

The subject had a normal childhood and early development had been normal. The subject walked at ten months, used words at eighteen months, and spoke in sentences at three years of age.

As a child, the subject enjoyed children his own age, playing alone or watching television. The subject enjoyed looking at picture books and liked to have books read to him. As the subject grew older, the subject read very little and only when encouraged. Reading materials-- newspapers, magazines, and books were ample in the home.

The subject was not seen by either parent as having been a problem child. He was rarely punished, and the method of punishment used was usually denial of a privilege. Either parent administered the punishment, and the decision of that parent was usually accepted by the other parent.

The parents viewed the subject as an individual who was not outspoken, somewhat introverted, and with a tendency to keep things to himself. Both parents desired a good life for the subject and would like for him to complete college. However, both parents felt that if the subject did not complete college they would not be too disappointed. The parents had noticed the subject's reading problem very early; consequently, both parents had shared in helping the subject at home. Both parents agreed that in elementary school, reading had been the only course presenting difficulty for the subject. Failure in the third grade was attributed to the subject's reading difficulty.

Both parents were sports enthusiasts as well as participants. This enthusiasm influenced the group activities of the family; hence, the activities were volleyball, basketball, baseball, and football. Occasionally, the family spent weekends at the beach and enjoyed picnics as a family.

The home environment seemed happy, relaxed but positive, and conducive to the normal development of children. No factors in the home evidenced a poor or undesirable home environment.

It may be concluded that subject 1 had a normal childhood, the home environment was happy, and undesirable factors, within the control of the parents, were controlled or negated.

Subject 2. The family of subject 2 included four half brothers, ages 45, 50, 52, and 58 and four half sisters, ages 47, 48, 53, and 59. The sisters and brothers were children of the father's by a previous marriage. The subject had not been reared with the sisters and brothers but, because of a close family relationship, the subject established a warm relationship with them and developed a very close relationship with the younger half brother. The father of the subject was deceased; consequently, the mother had reared the subject alone from the age of eleven. The subject's mother had been employed for twenty years in an office of a large corporation.

The subject lived in a modest home, in a relatively good neighborhood, in a city in the East. The neighborhood was primarily black, and the family had lived in the neighborhood for over thirty years. The annual income of the family was \$12,000.

The subject was viewed by his mother as a very obedient child and had not been a behavior problem. The subject was never spanked as a child and when punishment was needed a verbal scolding was used. As a teenager, the subject was never in trouble. The mother also stated that the subject was always observant of the rules set by her, and he never kept late hours.

As a child, the subject spent most of his spare time with older children or in the home helping his mother. The subject did not like to read and books were rarely read to him. There were books, magazines, and a daily newspaper in the home, but not an over-abundant supply. The only difficulty the subject experienced as a child was an eye problem. The mother felt satisfied with the subject, with his school progress, and had no plans for the subject's future. Likewise, the mother

felt that the subject was capable of deciding what he wanted to do and whatever the subject did was satisfactory to her. The mother showed faith in the judgment of the subject.

The subject held part-time jobs during high school. This was somewhat mandatory after the death of the father as well as the subject's feeling of responsibility for helping the mother.

The family activities were fishing, bowling, and boating. The family traveled together--taking vacations to points of interest in the United States and Mexico.

Conclusions relative to the home environment of subject 2 are that the home was happy, the environment was secure, and the mother was the dominant person in the subject's life. Moreover, discipline was firm, love was exhibited, parental guidance was given, and very early a sense of responsibility was implanted.

Subject 3. The home environment of subject 3 was found as unstable, insecure, and more unhappy than happy. These factors were caused by the constant arguments between the mother and father and their frequent separations. According to the mother, during these periods of separation, the subject was sent to live or stay with an aunt or grandmother. Lack of harmony eventually led to divorce; the subject was four years old at the time. After this incident, the subject lived with the mother most of the time, but spent a large portion of the time with the grandmother.

Both of the subject's parents were high school graduates, and the father attended college for one year. The mother's occupation was given as food service and the father as laborer. The mother's annual income was \$8,000.

The mother of the subject, now remarried, lives in a two-family flat, in a low income section of a large city in the East. She appeared to be calm, happy, and content. She was over explanatory when giving information about the subject.

The mother reported a normal birth and early development of the subject. As a baby, the subject was allergic to milk. The subject began taking steps at seven and a half months and talked at an early age. Also, the subject's dominant hand was the left hand; the father had changed the subject's hand preference.

As a child, the subject was somewhat withdrawn, somewhat selfish, preferred playing with older children, and rarely played with his brother. The mother stated that the subject did not make friends easily and really preferred playing and being alone.

The subject had not attended kindergarten, began school at seven and a half years, and never failed a grade in elementary school. Very early, the mother realized that the subject had a reading and learning problem, because the subject had much difficulty in elementary school for which no help was given. The mother categorized the subject as a slow learner and felt the subject's overall school work was fair.

During the interview, the mother frequently compared the subject with his brother or explained the subject's general personality as being so very different from the brother. The mother felt the subject had an inferiority complex and was best suited for work with his hands. The mother was happy the subject had decided to go to college but did not feel that the subject would be successful.

The mother stated that the subject was not a problem child or teenager, was not punished as a child, and was always a quiet person. The



mother had no goals for the subject but just wanted the subject to be a good American citizen.

It may be concluded that the home environment of subject 3 was insecure, unstable, and not conducive to learning. Furthermore, undesirable factors of the home and environment were of such magnitude that the subject developed a depressed personality.

Subject 4. The family of the subject lived in a large city in the East. The mother and father were divorced when the subject was two. After the divorce, the mother maintained a three-room apartment in a low income section of the city for her, the subject, and the sister.

The mother's occupation was social service worker and the father worked in a steel mill. Both parents were high school graduates and the mother had completed two years of college. The annual income of the family was between \$16,000 and \$18,000.

The mother reported that the subject walked and said words at the age of one. The birth of the child and development was normal. The subject had no unusual problems as a child.

As a child, the subject spent his spare time playing, watching television, and drawing. The subject's favorite toy was a drum set, and he preferred playing with children his age.

The mother reported that at an early age the subject was a behavior problem. He frequently slipped away from home, disobeyed, fought with his playmates, and told stories. The mother also stated that the subject was always in trouble in school. The form of punishment was varied and ranged from spankings to denial of privileges.

The subject began kindergarten at the age of five, attended one elementary school and one private high school. The subject had not

failed a grade in elementary or secondary school. However, the mother stated that during this period the subject's overall school performance was fair.

As a child, the subject did not like to read but stories were read to him. There were ample books, newspapers, and magazines in the home. The mother and sister visited the library often. Reading was a hobby of the mother's; but, according to her, none of this affected the subject's attitude toward reading.

The subject developed a vision problem at fourteen and has worn glasses since that time. No other physical problems were evidenced by the mother which would prevent the subject's adequate performance in school.

The mother felt that the subject was good in auto mechanics and carpentry, and she had no plans for the subject's future. Likewise, the mother desired to assist or aid the subject in completing his education.

Presently, the subject lives with the father and has been with the father since he was fourteen. The mother has remarried and moved to another large city in the East. The mother permitted the subject to visit her for short intervals.

In conclusion, the subject's home environment was relatively unhappy, insecure, and unstable. Although at no time did the subject lack material goods, there was evidence of a lack of understanding, poor guidance, and contempt for the subject.

### School Background

High School. All of the subjects were graduates of an accredited high school, received diplomas on the basis of having fulfilled the requirements for college preparatory courses. None of the subjects were honor graduates. High school grade point averages for the subjects, on a four-point scale, were 1.67, 1.40, 1.32, and 1.84. Three of the subjects attended public school, whereas one subject attended a private-coed high school. One subject had attended two different high schools occasioned by the racial mixture mandate of the Federal Government. Three of the subjects attended high schools with a racially mixed student body and faculty, while one subject attended an all-black high school.

None of the subjects failed a grade in high school. Subjects 1, 2, and 3 made mostly grades of D and C in high school courses; although they had received grades of A in physical education. Subject 4 had received grades of A in general mathematics, American History, general science, and physical education.

In high school, all of the subjects took part in an extra curricula activity, club, or similar organization. Subjects 1 and 4 were in the high school band; subjects 2 and 3 took an active part in sports, football and track; subject 1 was a member of the high school chorus; and subject 4 was a member of the drama club. Subject 3 was a member of R.O.T.C. for three years and received an award for good conduct and dedication.

None of the subjects was enrolled in a special reading class or was given help in reading skills in the content area while in high

school; nor were the subjects recommended or placed in special classes. Likewise, none of the subjects received any special help--tutoring--in courses where performance was poor.

According to the information received, all of the subjects appeared to be interested in school, were not behavior problems per se or trouble makers, and generally were respectful. However, subject 4 had been called in by the counselor for talking in class, disrupting class, and fighting. Subjects 1, 2, and 3 were seen as docile, quiet, and somewhat introverted.

Subject 1 was seen as a student who tried hard outwardly but never put forth real effort to improve in his subjects. Subject 2 was seen as a student who really worked hard but was doing as well as could be expected. Subject 3 worked very hard, never understood anything, and had many personal problems. Subject 4 was seen as a student who spent most of his time trying to get by, never really studying hard and who had the ability to do better.

### College

All of the subjects were beginning college freshmen. Subjects 1, 3, and 4 were admitted from a high school; and subject 2 was admitted from a junior college. Subject 3 was admitted in a special class category. Subject 1 was enrolled in 11 semester hours, subject 2 was enrolled in 13 semester hours, subject 3 was enrolled in 10 semester hours, and subject 4 was enrolled in 15 semester hours.

All of the subjects were in a freshman English course, mathematics course, physical education course, reading and study course, and freshman seminar. One subject was enrolled in a religion course, one subject

was taking a speech course, and one subject was enrolled in three music courses. Subject 1 had selected physical education as a college major, subject 2 selected theology as a major, subject 3 selected religious education for a major, while subject 4 declared music education as a major.

All of the subjects appeared to have adjusted well to college life, had made some friends or formed a relationship with fellow classmates. The subjects' closest friends were of the same sex and from their home states or that area. One of the subjects had a steady girl friend; subject 1 dated many girls, while subjects 2 and 4 did not date.

None of the subjects had joined or aligned themselves with a campus club but had attended some of the social functions on the campus. For the most part, the subjects' free or spare time was spent loafing. Subjects 1 and 4 usually recreated off-campus and subjects 2 and 3 spent very little time in recreational activities. None of the subjects spent time in the Student Center recreational activities.

Observations of the subjects revealed that they were more anti-social than social, more introverted than extroverted, rather passive persons, and somewhat mechanical or robot in their daily activities. None of the subjects exhibited an abundance of enthusiasm with college life. Further observations revealed that subjects 1, 3, and 4 made poor use of their time, were frequently late for class and/or appointments, offered a variety of excuses for poor class performances and lacked self-discipline. Subject 2 made good use of his time, was generally self-directed, engaged in activities beneficial to him, and was liked and respected by his peers.

Additional information about the subjects obtained from the college teacher interviews revealed that all of the subjects were academically poor and of the four, subject 3 was the poorer. Motivation was very low for all subjects, and the subjects' poor performance was attributed to prior school experiences.

#### Peer Ratings

Peer ratings for the subjects are shown in Table I. According to the table, in the social realm, subject 2 was seen by a peer as average in friendliness, politeness, popularity, kindness, thoughtfulness, sharing, dependability, and taking part in activities. Subject 1 was average in kindness, thoughtfulness, friendliness, and politeness. Subject 3 was average in kindness, thoughtfulness, friendliness, sharing, and politeness. Subject 4 was average in popularity, kindness, thoughtfulness, and politeness. Subjects 1, 2, and 3 did not rate high on a social item, whereas subject 4 was rated high in taking part in activities, friendliness, and sharing.

In the emotional realm, subject 2 was rated average on happiness, calmness, honesty, joking, truthfulness, obedience, and responsibility. Subject 1 received average ratings on calmness, honesty, joking, obedience, and responsibility. Subjects 3 and 4 received average on four items, whereas subject 4 was thought by a peer to rate high in happiness, honesty, and joking.

Further shown in the table, Part III, Mental, is that subject 2 received the only high rating of the four subjects and this was on self-direction. Subject 1 was rated average in self-direction, and subject 4

TABLE I

## TOTAL CATEGORY RATING BY PEERS FOR THE SUBJECTS ON THE RATING FORM

Category	Social					Emotional					Mental					Work Habits				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Subject 1	0	3	3	1	0	0	5	1	4	1	0	1	2	3	0	0	2	1	2	0
Subject 2	0	7	0	0	0	0	7	0	5	0	1	3	0	2	0	0	7	0	0	0
Subject 3	0	4	2	1	0	0	4	4	4	0	0	0	2	4	0	0	0	1	3	0
Subject 4	3	3	1	0	0	3	4	1	0	3	0	4	1	1	0	0	2	1	2	0

High = 1  
Average = 2  
Low = 3  
Not Sure = 4  
Never = 5

was rated average in talking well, music and art ability, doing school work well, and intelligence. Subject 3 received low ratings in this area.

In Work Habits, subject 2 was rated as average in each category, and the other subjects were generally rated from low to not sure.

Commensurate with the ratings of the subjects, subjects 1, 2, and 4 were seen as average persons. Subject 3 was not seen by a peer to be a totally average person.

#### Emotional and Personality Assessment

##### Personality Characteristics

Data pertaining to the subjects' performance on the California Test of Personality are presented in Figure 1. According to the figure, in Total Adjustment, subject 3 obtained a percentile rank of 70; subject 1 obtained a percentile rank of 50; subject 2 obtained a percentile of 40; and subject 4 obtained a percentile of 20. In total Personal Adjustment, subject 1 obtained a percentile score of 80; subjects 2 and 3 obtained identical percentiles of 70; and subject 4 obtained a percentile of 20. According to Figure 1, in the component areas of Personal Adjustment, subjects 1 and 3's pattern of scores showed no sharp deviations in high or low scores, whereas subjects 2 and 4's pattern of scores showed a sharp drop in Withdrawing Tendencies. Subject 2's pattern of scores in Personal Adjustment, though not as erratic as subjects 1, 3, and 4, did show a low score in Self-Reliance and a high score in Nervous Symptoms.

The second part of the California Test of Personality, Social Adjustment, showed the pattern of scores for all subjects as erratic and



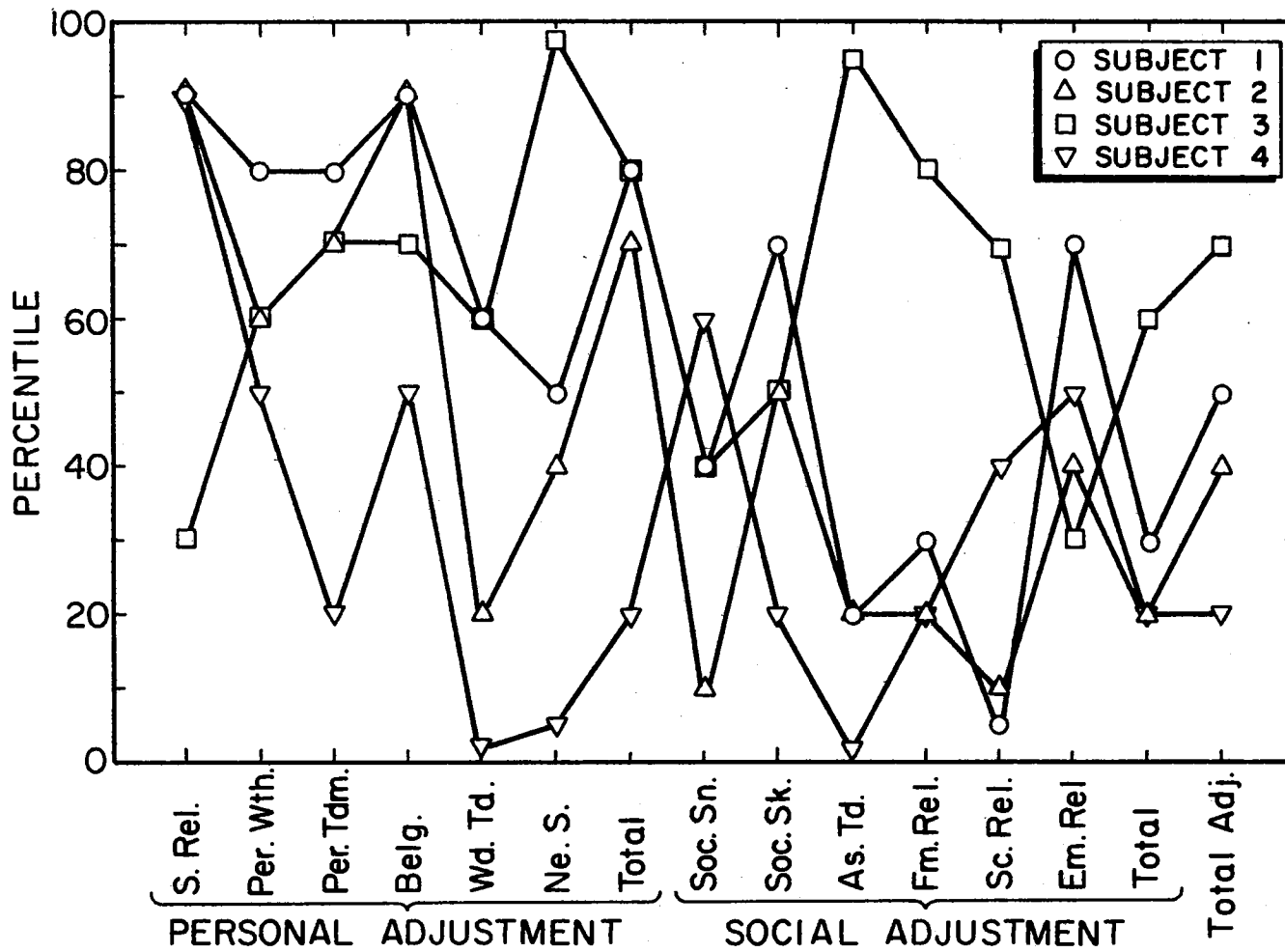


Figure 1. Results of the Subjects' Performances on the California Test of Personality

revealed areas of definite maladjustment. On this part of the test, subject 3 obtained the highest total percentile rank; subject 1 obtained a total percentile rank of 50; subject 2 obtained a percentile of 40; and subject 4 obtained 20, the lowest percentile. Further, the figure shows that in the components of Social Adjustment, subject 1 obtained low scores in Anti-Social Tendencies and School Relations; subject 2 generally obtained low scores in this area with the lowest scores in Social Standards and School Relations; while subject 3 obtained a low score in Community Relations. Subject 4's performance was low in all areas and generally lower than the other subjects.

The conclusions drawn from this set of data are that all of the subjects have a personality problem and are maladjusted. Likewise, the data showed none of the subjects to be well-adjusted; but subject 3 better adjusted than subjects 1, 2, and 4.

Further personality characteristics of the subjects were obtained from the Tennessee Self-Concept Scale. Useful data from this scale are presented in Figure 2. According to the figure, the profile for subject 1 shows a slightly low SC Score suggesting mild defensiveness; subjects 2 and 4 show a low SC Score with the T/F Ratio somewhat higher suggesting conflicts. Subject 3 shows an extremely low SC Score with a high and deviant T/F Ratio suggesting confusion, contradiction, and general conflict in self-perception. Subjects 2 and 4 show a T/F Ratio suggestive of attempts to achieve self-direction by affirming what is self and eliminating what is not self. The T/F Ratio for subject 1 is also suggestive of attempts to achieve self-direction by affirming what is self.

Tennessee Self Concept Scale

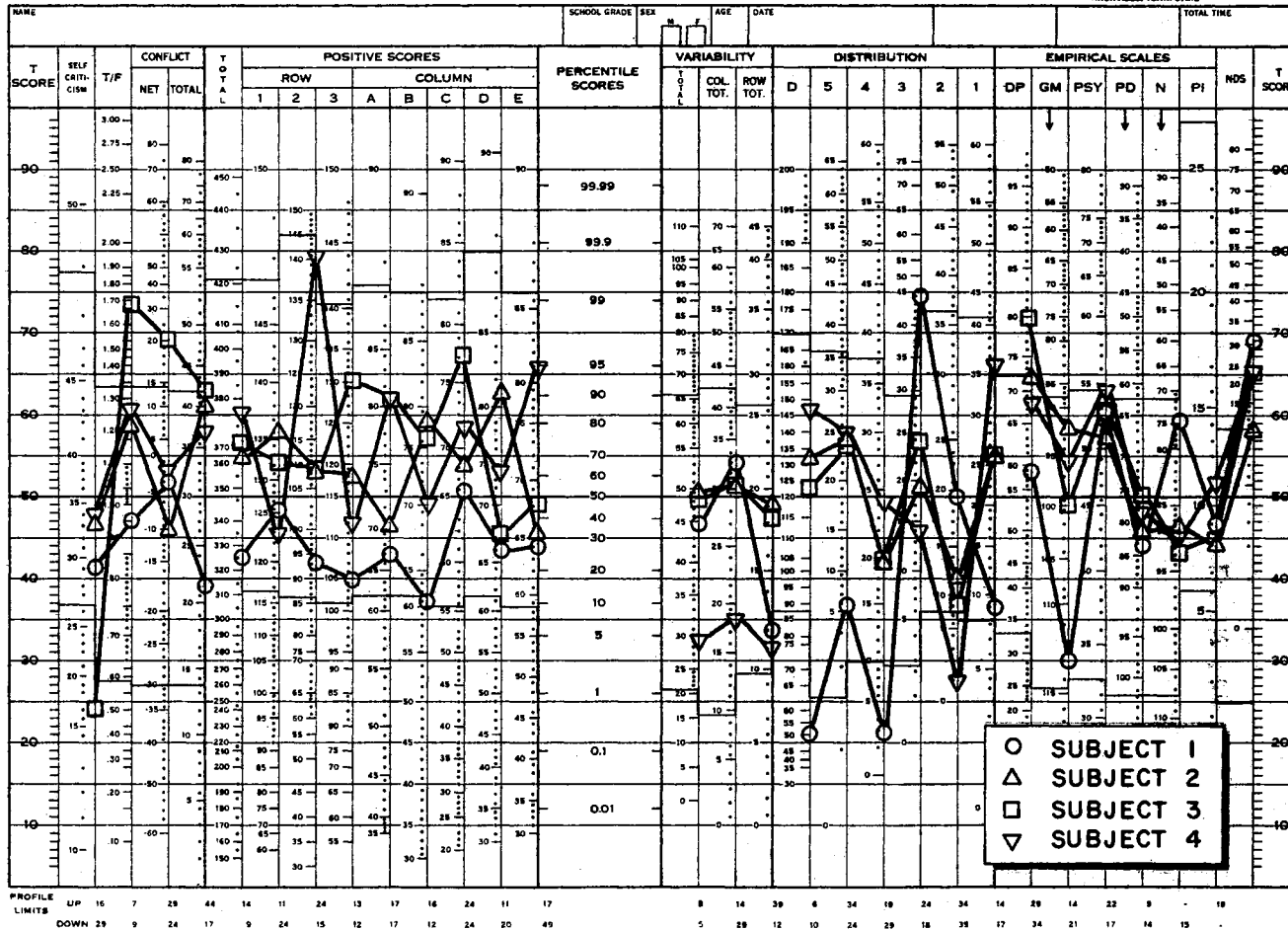
PROFILE SHEET

Clinical and Research Form

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Figure 2. Profiles of the Subjects on the Tennessee Self-Concept Scale



According to the figure, the profile shows subjects 1, 2, and 4 with Net Conflict Scores indicative of over affirmation of positive attributes, whereas subject 3 on Net Conflict shows denial conflict, concentration on "eliminating the negative." On Total Conflict, scores of subject 3 suggest confusion and conflict in self-perception; the Total Conflict Score of subject 2 is suspect of conflict; while the Total Conflict scores of subjects 1 and 4 suggest conflicting responses between positive and negative items.

Further observation of the figure and according to the Positive Score profile, subject 1 shows a positive internal frame of reference, and for the most part scores quite average. However, the very low score in Column B, Moral-Ethical Self with the rather sharp contrast in Column C, Personal Self, raises doubt as to whether the subject is presenting a true picture of himself. Further examination of the profile for subject 1 shows a sharp dip in Variability Raw Total, substantiating the Column conflict with the Distribution scores, evidencing hedging and avoidance. This is shown by the score distribution for 3. It may be concluded that subject 1, although appearing to possess a positive self-concept, is maladjusted with conflicts between his moral self and personal self.

Figure 2 shows subject 2 exhibiting a positive internal frame of reference and mild conflicts in the external frame of reference as related to Column A, Physical Self and Column E, Social Self. The remainder of the profile for subject 2 is average, suggesting little to no variability in responses. The higher score for DP could suggest a subtle defensiveness, thus indicating a positive self-description stemming from defensive distortion. However, it may be concluded that

subject 2 has a positive self-concept and suffers from no psychological disturbance.

Observing Figure 2 further, the profile for subject 3 reveals internal and external conflict. This is given in Positive Scores, Row and Column. The conflict areas are suggested by the rather sharp upward trend between Row 2 and 3 and the sharp dip in scores between Column C and D. The conflict is suggestive of Behavior, How He Acts, and Family Self. More specifically, the conflict shows dissatisfaction with the way he functions and perception of self in reference to family and value as a family member. Additional conflict and disturbance is suggested by the rather extreme scores or dips between scores in Distribution. It may be concluded that, according to the Empirical Scales DP score and NDS, subject 3 gives evidence of a psychological disturbance and does not possess a positive self-concept.

The profile presented in Figure 2 for subject 4 suggests internal conflict, being shown by the very sharp pike in Positive Scores, Row 1 and 2; and Row 2 and 3. These scores may indicate the subject's low opinion of himself but satisfaction with self. Also, these scores may be suggestive of the subject's dissatisfaction with his behavior. According to the Positive Column Scores for subject 4, all well within the average range, the rise on Column E reflects conflict in relation to self as perceived in relation to others. Likewise, the difference between scores on Column B and Row 2 raises doubt as to the subject's high self satisfaction in relation to his feelings of being "good" or "bad." Subject 4's low variability scores suggest a well-integrated person with little variability from one area to another; moreover, scores on Distribution D suggest certainty about the way the subject perceives

himself. While on the other hand, the extremely low 2 Distribution shows a disturbed person, perhaps uncertain and non-committal in his self-description. In accord with the profile presented in Figure 2, it may be concluded that subject 4 has a negative self-concept, exhibited by internal and external conflicts and evidences strains of conflict indicative of a disturbed person.

In conclusion and according to the findings of the Tennessee Self-Concept Scale, subjects 3 and 4 evidenced negative self-concepts, while subjects 1 and 2 evidenced positive self-concepts.

#### Aptitude Findings

Data pertaining to the aptitude findings of the subjects are presented in Tables II, III, and IV. The aptitudes, as obtained from the California Short Form Mental Maturity Test, are presented in Table II and III. According to Table II, subject 1 obtained a total I. Q. of 70, and subject 4 obtained a total I. Q. of 67, which placed them in the descriptive category of Very Low. Subjects 2 and 3 obtained total I. Q.'s of 79 that classified them as Low. Thus, according to total I. Q., the subjects were not markedly different. Further, on the Language and Non-Language Sections, subjects 2 and 4 showed a very significant difference between the Language and Non-Language I. Q.; a slight significance is shown for subject 1.

Further analysis of the subjects' performances on the California Short Form Mental Maturity Test, as shown in Table III, revealed the same marked differences. According to the table, subject 4 had an overall lower percentile rank and subject 2 had an overall higher percentile rank. Also, shown in the table are the differences between the

factor percentiles for subjects 2 and 3. The percentile range was from 3 to 54 for subject 2 and from 5 to 62 for subject 3.

TABLE II  
TOTAL PERFORMANCES OF THE SUBJECTS ON THE CALIFORNIA  
SHORT FORM MENTAL MATURITY TESTS

	Subject 1	Subject 2	Subject 3	Subject 4
Language I. Q.	72	75	78	80
Non-Language I. Q.	74	88	84	58
Total I. Q.	70	79	79	67

Pertinent and of significance to the analysis of the California Short Form Mental Maturity Test is the difference between section scores. As shown in the table, subject 1 shows no difference between Language and Non-Language percentile scores, thus indicating the subject's ability is equal on skills requiring no verbal skill and those requiring verbal stimuli. Subject 2 reveals a difference great enough to be significant between Language and Non-Language, which indicates that subject 2 has greater ability on tasks requiring a minimum of verbal stimuli. Subject 3 shows a slight difference between Language and Non-Language percentile scores, thus subject 3 would be expected to perform better on tasks requiring non-verbal stimuli. Subject 4 reveals an inverse

TABLE III

FACTOR PERCENTILES FOR THE SUBJECTS ON THE CALIFORNIA  
SHORT FORM MENTAL MATURITY TESTS

	Logical Reasoning Factor I	Numerical Reasoning Factor II	Verbal Concepts Factor III	Memory Factor IV	Language	Non- Language
Subject 1	5	14	10	3	4	5
Subject 2	14	54	10	3	7	24
Subject 3	10	62	5	7	10	18
Subject 4	2	3	8	10	12	0



relationship between Language and Non-Language percentile scores, hence subject 4 shows ability in tasks academically oriented.

Further observation of the table shows the percentile range for Factor I from 2 to 14; Factor II from 3 to 62; Factor III from 8 to 10; and Factor IV from 3 to 10. This range indicates the differences in abilities for the subjects on Factor I and II and the similarities of abilities on Factor III and IV.

Based on the data from Table III, subjects 2 and 3 attained scores in Numerical Reasoning, Factor II, that were very significant. Scores obtained on Numerical Reasoning and Verbal Concepts showed a very significant difference between the two factors; whereas, subjects 1 and 4 showed an inverse relationship. A conclusion based on the data obtained from this test is that all of the subjects are in the low intelligence range.

Further aptitude assessment was obtained from the Wechsler Adult Intelligence Scale and is presented in Table IV. According to the table, subject 1 obtained a full scale I. Q. score of 92; subject 2 obtained a full scale I. Q. score of 90; and subject 4 obtained a full scale score of 103, which indicated normal or average range of mental ability; whereas subject 3 obtained a full scale I. Q. score of 89 indicating a dull normal range of mental ability. Further, the table shows that performance I. Q. scores were higher than verbal I. Q. scores for all subjects except subject 3.

In terms of aptitude, the conclusions drawn from this set of data were that subjects 1, 2, and 4 were more alike in mental ability than subject 3, and subjects 1, 2, and 4 were of average intelligence.

TABLE IV  
 PERFORMANCES FOR THE SUBJECTS ON THE  
 WECHSLER ADULT INTELLIGENCE SCALE

	Subject 1	Subject 2	Subject 3	Subject 4
Verbal Score	47	43	49	53
I. Q.	88	86	90	96
Performance Score	49	47	43	58
I. Q.	98	97	90	111
Full Scale Score	96	90	92	111
I. Q.	92	90	89	103

Further analysis of the aptitude assessment on the Wechsler Adult Intelligence Scale is shown in Table V. Consonant with the table, subject 1 shows a low or borderline ability score in Comprehension; subject 2 reveals low or borderline ability scores in Information, Vocabulary, and Picture Arrangements; subject 3 shows low or borderline ability scores in Arithmetic, Similarities, and Picture Arrangement; while subject 4 shows a low or borderline score in Information. Also, the table discloses a high or superior score on Digit Symbol for subject 4 and a high or very superior score on Digit Symbol for subject 2. Additional disclosures given in the table are: subjects 2, 3, and 4 showed a lack of general knowledge, perhaps attributable to the subject's failure to have learned in school; subjects 1 and 2 showed a lack of ability to exercise judgment; subjects 2 and 3 indicated

inability to concentrate and attend; subject 3 evidenced difficulty in abilities involving generalizations and abstract thinking; subject 2 disclosed inability to attend; and subjects 1 and 2 revealed difficulty in expressive vocabulary and/or word knowledge. According to the Performance tests, subject 1 showed a weakness in motor speed and visual memory; subject 2 showed a weakness in visual perceptual tasks; and subjects 2 and 3 evidenced a weakness in social awareness and/or social intelligence.

TABLE V  
VERBAL AND PERFORMANCE SUBTESTS RESULTS FOR THE SUBJECTS  
ON THE WECHSLER ADULT INTELLIGENCE SCALE

Scaled Score	Subject 1	Subject 2	Subject 3	Subject 4
<u>Verbal</u>				
Information	8	6	7	6
Comprehension	4	7	9	10
Arithmetic	9	7	6	9
Similarities	9	10	6	10
Digit Span	10	7	11	10
Vocabulary	7	6	10	8
<u>Performance</u>				
Digit Symbol	7	17	11	14
Picture Completion	10	9	9	11
Block Design	11	7	10	11
Picture Arrangements	9	4	6	11
Object Assembly	12	10	7	10

Conclusions drawn from this set of data are that subjects 1, 2, and 4 are of average intelligence with an intellectual impairment; and subject 3 is of dull normal intelligence with a psychotic disorder.

#### Interests and Attitudes

Significant points derived from the subjects' responses to the Reading Interest and Activity Inventory were that subjects 1 and 4 were different from subjects 2 and 3 in their interests, and all subjects differed in the kinds of activities liked. Relative to the activity part of the inventory, of a twenty-three item list, subject 1 liked to do sixteen of the activities but did not like to do any of the activities very much; subject 2 liked to do six of the activities and liked very much to do three of the activities; subject 3 liked to do four of the activities and liked very much to do four of the activities; subject 4 liked to do four of the activities and liked very much to do eleven of the activities.

Subjects 1 and 2 liked watching T. V., subject 3 did not, whereas subject 4 liked watching T. V. very much. Subject 1 liked driving a car while subjects 2, 3, and 4 indicated that they liked driving a car very much. Subjects 1 and 4 liked writing letters, loafing, reading, playing cards, going for a walk in the park, going to the movies, and talking. Subjects 2 and 3 liked fishing, talking about the Bible, going for a walk but no special place, and listening to the radio. Subject 2 liked cooking; subject 3 liked hunting; all of the subjects liked roller skating, football, swimming, and reading newspapers. Subjects 1, 2, and 4 read magazines but about blacks.

Part II, Reading Interests, of the Inventory showed subjects 1 and 4 relatively more alike; subjects 2 and 3 somewhat alike but different from the other two subjects in interests. Moreover, subjects 1 and 4 had a wider interest area in reading, while subjects 2 and 3 were interested in reading the Bible, reading about people, and sports. Subjects 1 and 4 liked mystery stories, ghost stories, detective stories, and sport stories. None of the subjects indicated that they liked to read.

Titles offered by the subjects for books that they would write for others their age were:

- Subject 1: Teenagers of Today
- Subject 2: Life Just Beginning
- Subject 3: Why You Should Have the Holy Ghost
- Subject 4: The World of Tomorrow

Responses to Item 5 of Part II, Think of the book or story that you liked best this year, what was it and why did you like it, were as follows:

- Subject 1: No response
- Subject 2: Campus Values
- Subject 3: When Christ Died on the Cross, a very moving book
- Subject 4: The Godfathers, it resembled my babyhood

Subjects' responses to Part III of the Reading Interest and Activity Inventory revealed that subjects 1 and 4 thought their fathers to be the greatest man in the world today, while subjects 2 and 3 thought Lord Jesus, Jesus Christ to be the greatest man in the world today. All subjects admired their mothers most as living women in the world today; subjects 1, 2, and 4 named Martin Luther King as a favorite hero from the past, while subjects 1 and 4 desired being like Martin L. King. Subject 2 did not want to be like anyone and subject 3 wanted to be like Jesus Christ.

All subjects listened to the radio but primarily listened to 'Soul' stations. Subjects 1, 2, and 4 attended adventure movies; subjects 1 and 2 liked love movies; subjects 1 and 4 liked comedy movies, while subject 3 did not attend movies.

None of the subjects attended operas and symphony concerts. All of the subjects had been to a museum and an art gallery. Subjects 2, 3, and 4 had been to a summer camp; subjects 2 and 4 had been to a zoo; and subjects 1, 2, and 4 had attended stage plays.

In the category of extended trips, subjects 2, 3, and 4 had taken extended trips within the continental United States and subject 3 had visited Thailand.

#### Physical

The general physical findings, for all subjects, obtained from the college medical records and home report information form disclosed that all subjects' physical conditions were satisfactory. None of the subjects evidenced abnormalities of a major system, no nervous disorders were present and none was being treated for contagious diseases.

Early medical records of the subjects revealed that subjects 2 and 3 had measles, chicken pox, and mumps as children. Subject 3, as a child, had colds most frequently. One subject had major surgery for the removal of a cervical anterior benign tumor. None of the subjects showed traces of inheritable diseases.

Weight was normal for each subject according to the height and build of the subject. Subjects 1 and 3 had normal or satisfactory vision. Subject 4 had normal corrected vision. Subject 2 had

unsatisfactory vision with corrected lenses and showed a corrected vision of 20/30. It may be concluded that the subjects had no physical disabilities.

## Reading Evaluation

### Survey Measures

Table VI shows the performance of the subjects on the survey tests measures. Data in this table revealed that on the Nelson-Denny Reading Test all subjects showed elevated grade equivalents when compared with the Iowa Silent Reading Tests. Also, according to the table, on the Nelson-Denny Reading Test only one subject performed at the beginning high school level in a subtest.

On the Vocabulary subtest of the Nelson-Denny Reading Test the percentile range was from 0 through 16, with a grade equivalent range of 7.0 to 10.1. Thus, indicating that, according to this test, all subjects had a very limited vocabulary.

The Comprehension subtest of the Nelson-Denny Reading Test disclosed low percentiles with a range from 4 to 9 and a grade equivalent range from 7.0 to 8.4. Thus, in skill of comprehension, as measured by the test, the four subjects exhibited a deficiency.

The measure of rate on the Nelson-Denny Reading Test showed a percentile range from 6 to 17 with a grade equivalent range from 7.0 to 8.4. According to the scores on the subtest of Rate, subjects 1 and 2 performed slightly better than subjects 3 and 4, with all subjects evidencing a slow rate of reading.

TABLE VI  
 PERFORMANCES OF THE SUBJECTS ON  
 THE READING SURVEY MEASURES

Test	Subject 1	Subject 2	Subject 3	Subject 4
<u>Iowa Silent Reading Tests</u>				
Median	141	142	140	145
Percentile	1	1	1	2
*Grade Equivalent	6.6	6.8	6.5	7.2
<u>The Nelson-Denny Reading Test</u>				
Vocabulary				
Raw Score	20	6	7	12
Percentile	16	-1	15	4
Grade Equivalent	10.1	7.0	7.3	8.3
Comprehension				
Raw Score	22	18	16	22
Percentile	9	5	4	9
Grade Equivalent	8.4	7.5	7.0	8.4
Total - Grade Equivalent	9.2	7.1	7.0	8.3
Rate				
Raw Score	185	185	140	150
Percentile	17	17	6	8
Grade Equivalent	8.4	8.4	7.0	7.0

\*Local College Norms



The Iowa Silent Reading Tests results, shown in Table VI, revealed a percentile of 1 for all subjects, with a grade equivalent range from 5.0 to 6.6. Hence, according to the performance of the subjects on the two survey measures, all subjects were substantially deficient in reading skills as measured by these tests.

Results of the subjects' performances on the Gates-MacGinitie Reading Tests are presented in Table VII. According to Table VII, scores obtained by subject 1 showed a slightly better performance than the other subjects, whereas subject 4 showed a slightly better performance than subjects 2 and 3.

Further observations of the table revealed that in vocabulary, subject 2 performed at the upper primary level. Subject 3 performed at the upper primary level in comprehension, while subjects 1 and 4 showed an overall performance at the intermediate level.

Conclusions regarding this set of data were that all of the subjects were disabled in vocabulary, comprehension, and speed and accuracy, while subject 2 was extremely disabled in vocabulary and subject 3 was extremely disabled in comprehension.

#### Diagnostic Measures

Performances of the subjects on the New Developmental Reading Tests are shown in Table VIII. As shown in the table, subject 4 obtained the highest grade score in basic vocabulary and subject 2 obtained the lowest score. In literal comprehension, subject 4 obtained the highest grade score, while subject 2 obtained the lowest grade score. Creative comprehension showed subject 4 with the highest score and subject 2 with the lowest grade score. In general comprehension, subject 4 obtained

TABLE VII  
 PERFORMANCES OF THE SUBJECTS ON THE GATES-  
 MAGGINITIE READING TESTS

	Subject 1	Subject 2	Subject 3	Subject 4
<b>Speed &amp; Accuracy Attempts</b>				
Raw Score	13	12	11	11
Grade Score	7.6	6.8	6.0	6.0
<b>Accuracy</b>				
Raw Score	12	8	11	10
Grade Score	7.9	5.3	7.3	6.6
<b>Vocabulary</b>				
Raw Score	19	7	14	11
Grade Score	6.9	3.4	5.2	5.8
<b>Comprehension</b>				
Raw Score	33	24	15	30
Grade Score	7.8	5.8	3.9	7.2

the highest grade score with subject 2 showing the lowest grade score.

TABLE VIII  
RESULTS OF THE SUBJECTS' PERFORMANCES ON THE NEW  
DEVELOPMENTAL READING TESTS

	Subject 1		Subject 2		Subject 3		Subject 4	
	Raw Score	Grade Score	Raw Score	Grade Score	Raw Score	Grade Score	Raw Score	Grade Score
Basic Reading Vocabulary	27	6.3	5	3.4	23	5.7	36	7.4
							46	*9.4
Reading for Information	19	7.6	22	8.4	22	8.4	17	7.2
							27	*9.4
Reading for Relationships	20	9.3	19	9.2	2	3.1	12	7.2
							22	*9.5
Reading for Interpretations	7	5.3	9	6.1	10	6.5	12	7.2
							22	*9.5
Reading for Appreciation	19	8.6	9	5.2	10	5.6	9	5.6
							19	*8.6
Literal Comprehension	39	9.1	41	9.3	24	6.2	29	7.2
							49	*10.1
Creative Comprehension	26	7.1	18	5.6	20	6.0	21	6.1
							41	*9.1
General Comprehension	65	8.1	59	7.6	44	6.2	50	6.8
							90	*9.7

\*Untimed

Further examination of the table revealed that in Reading for Information all subjects' grade scores were within the junior high school level. In Reading for Relationships, all subjects showed a better performance and all grade scores fell within the junior high school level. Performances of the subjects on Reading for

Interpretations showed a diversity in grade scores, with a range of scores from 3.1 to 9.5. Results of the subjects' performance on the Reading for Appreciation showed subjects 1 and 4 with grade scores at the junior high school level, with subjects 2 and 3 obtaining grade scores at the intermediate level.

From this set of data, it was concluded that all subjects were deficient and disabled in basic reading vocabulary and that subject 2 was severely disabled. On the measures of comprehension, based on untimed results, the subjects showed a better performance; however, the level of the subjects' performance was not commensurate with a level that would indicate a lack of disability. Consequently, the subjects evidenced a reading disability in skills of comprehension.

Table IX presents the results pertinent to the subjects' performances on the Science Research Reading Record. The table indicates that according to the subjects' total score, in skills measured by the test, all subjects were performing below an acceptable level. The table further shows that all of the subjects were similar or alike in reading skills measured by the test.

TABLE IX  
RESULTS OF THE SUBJECTS' PERFORMANCES ON THE  
SRA READING RECORD

	Subject 1	Subject 2	Subject 3	Subject 4
Total Raw Score	52	51	43	65
Grade Equivalent	7.4	7.3	6.5	8.7

Conclusions drawn from the performances of the subjects on this evaluational measure were that in skills of comprehension, everyday reading skills, and vocabulary all of the subjects showed a deficiency and were disabled.

The results of the subjects' performances on the Bond-Balow-Hoyt Silent Reading Diagnostic Tests are presented in Tables X and XI.

According to Table X, in total subtest scores, subject 4 evidenced a better performance than subject 1, and subjects 2 and 3 showed a much poorer performance, evidencing similarities in each skill area.

Further observations of Table X showed all subjects, in skills measured by the Silent Reading Diagnostic Tests, operating at the elementary school level, and subjects 1, 2, and 3 at the primary level in phonic knowledge. Thus, according to the total test results, all subjects were disabled in skills measured by the test.

Specific deficiencies of the subjects from the subtests of the Silent Reading Diagnostic Tests are presented in Table XI. In terms of the subjects' performances in these categories, subject 4 exhibited a better performance, while subjects 2 and 3 exhibited poor performances. Likewise, subjects 2 and 3 evidenced similarities of deficiencies in recognition techniques and phonic knowledge. Additionally, subjects 2 and 3 showed extreme disability in phonic knowledge, while subjects 1 and 4 showed serious disability.

In terms of this set of data, all subjects were disabled in reading skills measured by the test, while subjects 2 and 3 were seriously disabled.

Performances of the subjects on the vocabulary section of the Wide Range Achievement Test follow.

TABLE X

RESULTS OF THE SUBJECTS' TOTAL PERFORMANCE ON THE  
SUBTESTS OF THE SILENT READING DIAGNOSTIC TESTS

Subject	Word Recognition Skill		Error Pattern		Recognition Techniques		Phonic Knowledge	
	Score	Grade Equivalent	Score	Grade Equivalent	Score	Grade Equivalent	Score	Grade Equivalent
1	77	6.0	7	6.0	74	6.8	59	3.1
2	65	4.5	15	4.6	64	6.3	55	2.8
3	65	4.5	15	4.6	56	5.2	52	2.5
4	80	6.6	4	6.6	57	5.4	85	7.5

TABLE XI

SUBJECTS' PERFORMANCES IN SPECIFIC READING DEFICIENCIES  
ON THE BOND-BALOW-HOYT SILENT READING TESTS

Subject	Words in Isolation		Words in Context		Omitted	Error Pattern			Orientation
	Score	Grade Equivalent	Score	Grade Equivalent		Initial	Middle	Ending	
1	49	5.5	28	6.5	8.0+	4.3	5.7	6.8	6.4
2	41	3.9	24	5.3	3.7	4.3	5.2	3.0	5.2
3	42	4.0	23	5.0	3.5	3.8	7.2	3.0	4.6
4	52	6.6	28	6.5	8.0+	6.8	6.0	6.3	7.0

### Word Recognition Measures

Performances of the subjects on the vocabulary section of the Wide Range Achievement Test are shown below.

	Subject 1	Subject 2	Subject 3	Subject 4
Basal	5.0	4.6	5.1	6.2
Performance	7.1	5.1	6.0	8.8
Ceiling	8.0	5.3	6.2	10.0

According to the results of the test, the highest performance level was exhibited by subject 4 and the lowest performance level was exhibited by subject 2. Likewise, subject 4 exhibited the highest ceiling and subject 2 the lowest. It may be concluded that subjects 2 and 3 are more disabled than subjects 1 and 4.

Results of the Roswell-Chall Diagnostic Test of Word Analysis Skills showed subject 1 deficient in single consonant sounds, consonant combinations, and short vowel sounds; subject 2 deficient in consonant sounds, consonant combinations, short vowel sounds and syllabication; subject 3 deficient in single consonant sounds, consonant combinations, short vowel sounds, and syllabication; and subject 4 with a skill deficiency in syllabication.

Oral Reading Tests. The performance of the subjects on the Gray Oral Reading Tests showed all subjects disabled in oral reading. This was evidenced by the total passage scores and grade equivalent scores. Subjects 1 and 2 read through paragraph 12, subject 2 read through paragraph 6, and subject 3 read through paragraph 8. Subjects 1 and 4 read paragraph 4 with no errors; subject 2 read paragraph 1 with no errors; while subject 3 read paragraph 2 with no errors. Total passage scores and grade equivalents for the subjects were:



TABLE XII

ERRORS MADE BY SUBJECTS ON THE ROSWELL-CHALL DIAGNOSTIC  
TEST OF WORD ANALYSIS SKILLS

	Single Consonant Sounds	Consonant Combinations	Short Vowels	Long Vowels Silent e	Vowel Combinations	Syllabication
Subject 1	s i w g f y t h r n j p c b	cr sh wh th scr str	a u			
Subject 2	m f y p c	th scr str	sap sob e o	pal pale	soil lean	intended nominate expressionless
Subject 3	s m i d w g y t v r n z	net sap sob	i o	fin cub cube	weed	establishment expressionless
Subject 4	z		i	began		information nominate establishment expressionless intended

Subject 1	48	6.2
Subject 2	28	2.9
Subject 3	27	2.8
Subject 4	56	7.7

Comprehension totals disclosed subjects 1 and 4 with 27 and subjects 2 and 3 with 21. The rate of reading on these paragraphs for all subjects was slow, with subject 2 revealing the slowest rate of reading.

Types of errors of the subjects are presented in Table XIII. Shown in this table are the total errors for each subject and the total errors for all subjects in each category. According to the table, subjects 1 and 4 made the most errors and subject 2 made fewer errors. The subjects made more errors in partial mispronunciation and fewer errors in inversions.

Subject 4's errors were mainly in two categories. Subject 1 had a concentration of errors in one category. Subject 3 made errors in all categories, while subject 2 had less dispersion of errors.

Further analysis of the oral reading performances showed that all subjects lacked expression, had poor phrasing, poor enunciation, and poor voice tone. Subject 3 appeared totally unaware of errors and revealed no method of word analysis; subject 4 constantly lost his place; subject 2 had no method of word analysis and seemed totally unaware of errors; and subject 1 read in a garbled monotonous tone.

A further analysis of the Gray Oral Reading Paragraphs showed that subject 1's rate of reading time increased with the difficulty level of the paragraphs and comprehension showed a decrease as the difficulty level of the paragraph increased. The subject's error pattern was seen as visual perception and repetitions. Fewer errors were made in omissions and syllabication. Paragraphs at the high school level and beyond

showed an increase in rate of reading according to the paragraph level, comprehension remained constant and repetitions decreased. Words aided increased, substitutions increased, and visual-perceptual errors were in medial, ending, and beginning.

TABLE XIII  
TYPES OF ERRORS MADE BY THE SUBJECTS  
ON THE GRAY ORAL READING TEST

	Subject 1	Subject 2	Subject 3	Subject 4	Total Errors
Aid	12		4	4	20
Gross Mispronunciation	5		4	2	11
Partial Mispronunciation	7	4	7	11	29
Omission	3	3	1	14	21
Insertion	2	4	6	3	15
Substitution	3	8	4	1	16
Repetition	7	4	6	2	19
Inversion			1		1
Total	41	23	33	38	133

Subject 2 indicated similarities in that paragraphs at the primary level showed an increase in rate of reading on each succeeding paragraph. Paragraphs at this level showed errors primarily behavioral,

these were omissions and substitutions with repetitions becoming more frequent at the upper limits. Paragraphs at the intermediate level showed no change in error type or pattern.

Analysis of subject 3's performance disclosed an extremely slow rate of reading on paragraphs at the primary level. The oral reading pattern of errors was inconsistent with no concentration within a category. It was noted that the subject had a full-word reversal, sight-word errors, additions, repetitions, corrections, and visual-perceptual errors. Errors of addition did not change the sentence meaning. Paragraphs read by the subject beyond the primary level showed an increase in rate of reading with the difficulty level of each paragraph. Comprehension decreased, whereas errors increased. Analysis of errors showed a decrease in repetitions, increase in words aided, and self-corrections appeared with the purpose to clarify meaning. Word errors were visual-perceptual, endings, and behavioral.

Subject 4, on paragraphs at the intermediate level, exhibited word errors primarily in the behavioral category which were repetitions, additions, omissions, and corrections. The subject's errors of omission and addition did not alter the sentence meanings. Correction errors reflected a kind of processing made by the subject to supply meaning. Visual-perceptual errors consisted of locational and visual-auditory errors in consonant diagraphs. Paragraphs read at the high school level and beyond showed an increase in rate of reading according to the difficulty level of each paragraph, likewise, comprehension decreased with the difficulty level of the paragraph. Paragraphs at this level revealed a change in strategy; behavioral errors decreased. The subject began to apply a more mature level of processing exhibited by a

decrease in visual-perceptual errors with syllabication errors pre-dominant.

The additional analysis warrant the following conclusions:

1. All subjects showed an increase in rate of reading as the difficulty level of the paragraphs increased.
2. Error patterns were visual perception.
3. Behavioral errors were predominant.
4. Dialect errors were not evident.
5. Repetitions decreased as the difficulty level of the paragraphs increased.
6. Errors in additions and substitutions were primarily words that were in the subject's experiential realm.

#### Oral Reading Passages

Information obtained from the oral passages served to substantiate the findings of the other oral measure. All subjects read passages at the independent, instructional, and frustration levels.

Subjects 1 and 4 showed no behaviors and errors different from the other oral measure. Subjects 2 and 3 presented a somewhat different behavior: Both subjects, at the frustration level on two readings of the same passage, showed continued frustration. The percentage of errors on the second reading increased three points with rate increasing for both subjects. The category of errors was the same, however, on different words. Frustration level was 3.6 for both subjects.

Subject 1 showed an identical pattern of behavior and errors. The difference was in the rate of reading. Subject 4 showed a decrease in rate of reading on the second reading. Frustration level for both subjects 1 and 4 was not established.

The results of the subtests of the Durrell Analysis of Reading Difficulty showed subjects 1, 2, and 3 exhibiting the same similarities and/or differences as shown on the other diagnostic measures. Subject 1 showed a strength in word recognition, flash and analysis; a weakness was shown in hearing sounds in words and phonic spelling of words. Subject 2 exhibited a strength in word recognition, flash and analysis; a weakness in hearing sounds in words; and visual memory of words. Subject 3 displayed a strength in word recognition; a severe weakness in hearing sounds in words; and a weakness in visual memory of words. These results are shown in Table XIV.

According to this measure, subjects 1, 2, and 3's, although disabled in word recognition, performances were representative of a strength. Disabilities of the subjects were in hearing sounds in words, visual memory of words, and for one subject phonic spelling of words was a disability.

#### Tests of Rate of Reading

Data obtained from the subjects' performances on the Van Wageningen Rate of Comprehension Scale are presented in Table XV. As illustrated in the table, the lowest rate of words per minute was 52, whereas the highest rate of words per minute was 165. The lowest grade score was below 3.0 and the highest grade score was 9.0.

Other observations of the table revealed that subject 1 read more paragraphs correctly; subject 3 read the least number of paragraphs with the least number correct. The conclusions drawn from this set of data were that in rate of reading, on the Van Wageningen Rate of Comprehension Scale, all of the subjects read at a slow rate.

TABLE XIV

PERFORMANCES OF THE SUBJECTS ON CERTAIN SUBTESTS OF THE  
DURRELL ANALYSIS OF READING DIFFICULTY

	Word Recognition		Hearing Sounds	Phonic	Visual
	Flash	Analysis	in Words	Spelling	Memory
			(Primary)	of Words	of Words
					(Primary)
Subject 1	6.75	6.75	2.5	4.0	
Subject 2	5.50	6.25	3.0		3.5
Subject 3	6.25	5.25	1.5		3.5

TABLE XV

PERFORMANCES OF SUBJECTS ON THE RATE OF COMPREHENSION  
SCALE OF THE VAN WAGENEN DIAGNOSTIC EXAMINATION  
OF SILENT READING ABILITIES

	Number of Paragraphs Read	Number of Paragraphs Correctly Read	Grade Level Score	Words Per Minute
Subject 4	23	22	9.0	165
Subject 3	11	7	-3.0	52
Subject 2	16	11	4.7	82
Subject 1	14	11	4.10	85

Further evaluation of the subjects' rate of reading, obtained from the Basic Reading Rate Scale, is presented in Table XVI. In terms of the subjects' performance on this measure of rate, the highest rate of words per minute was 126, and the lowest rate of words per minute was 58. The highest number of paragraphs read was 28 and the lowest number of paragraphs read was 12. The highest raw score was 24 and the lowest raw score was 11.

Further observations of the table showed that subject 1 read the most words per minute and subject 3 read the least number of words per minute; subject 3 read the most paragraphs but was the least accurate.

Relative to this set of data, it was concluded that all subjects had a slow rate of reading. In accordance with these two measures of rate, the subjects' average rate of reading is shown below.



	Subject 1	Subject 2	Subject 3	Subject 4
Average Words Per Minute	105	60	55	130

These averages serve further to substantiate the conclusion that all subjects were disabled in rate of reading.

TABLE XVI  
PERFORMANCES OF THE SUBJECTS ON THE BASIC  
READING RATE SCALE

	Number of Para- graphs Read	Raw Score	Words Per Minute
Subject 4	19	18	95
Subject 3	12	11	58
Subject 2	28	21	110
Subject 1	25	24	126

### Study Skills

Data pertaining to the subjects' performances on the California Study Methods Survey are shown in Table XVII. According to the table, subject 1 showed a consistent picture in study methods and attitudes; subject 2 presented a rather consistent picture of study methods and attitudes, whereas subjects 3 and 4 revealed a very inconsistent profile of study methods and attitudes. Further substantiating the

TABLE XVII  
RESULTS OF THE SUBJECTS' PERFORMANCES ON THE  
CALIFORNIA STUDY METHODS SURVEY

	Subject 1	Subject 2	Subject 3	Subject 4
<b>Attitudes Toward School</b>				
Standard Score	50	45	55	55
Percentile	50	30	70	70
<b>Mechanics of Study</b>				
Standard Score	55	50	37	33
Percentile	70	50	10	5
<b>Planning &amp; System</b>				
Standard Score	50	47	53	47
Percentile	50	40	60	40
<b>Total Score</b>				
Standard Score	53	47	50	45
Percentile	60	50	50	30
<b>Verification</b>	29	25	17	18

consistency of subjects 1 and 2 is the verification score. The verification score for subjects 3 and 4 fell at the critical score level, further aiding in showing the inconsistent picture of the subjects in study methods and attitudes.

Other observations of the table showed subjects 1 and 2 with identical scores and percentiles in attitudes toward school and subject 2 with the lowest standard score and percentile. In mechanics of study, subject 1 had the highest percentile of 70, while subject 4 had the lowest percentile of 5. In planning and system, subject 3 had the highest percentile of 60, whereas subjects 2 and 4 had identical percentiles of 40. Total score percentiles for subjects 2 and 3 were identical, with the highest percentile of 60 for subject 1.

The results of this assessment suggest that subjects 1 and 2 possess adequate study methods and attitudes toward school, while subjects 3 and 4 lack adequate study methods and attitudes toward school.

#### Summary

This chapter has presented the diagnostic findings of a case-study diagnosis for four disabled college readers. The findings, according to the presentation categories, are summarized below.

Environmental factors for two subjects were more negative than positive, whereas for two subjects the environmental factors were basically positive. The negative environmental factors were as follows: (1) reared in a broken home; (2) frequent change of residence; (3) living between parent and a relative; (4) low parental expectations; (5) limited early childhood experiences; (6) general neighborhood environment; (7) frequent change between elementary schools and high

schools; (8) failure of parents and schools to provide special help in areas most needed; and (9) poor or no vocational counseling in high school.

The positive environmental factors were (1) abundant display of love and affection in the home; (2) educational level of the parents; (3) normal childhood development; (4) ample reading materials; (5) no physical disabilities; and (6) adequate guidance and discipline in the home.

Personality characteristics for the subjects were that all of the subjects exhibited a personality problem and a personal or social maladjustment. Two subjects evidenced negative self-concepts, while two subjects evidenced positive self-concepts. One subject evidenced strains of conflict indicative of a disturbed person, and one subject showed a psychological disturbance.

Aptitude findings showed three subjects of normal intelligence and one subject within the dull normal range of intelligence. The aptitude findings did indicate the effects of the generally negative environmental factors.

Interests and attitude findings showed limited interests, negative reading habits, and confined tastes for reading in all subjects. None of the subjects had read widely or liked to read.

Findings from the reading evaluation showed all subjects disabled in reading. The level of the disabilities ranged from beginning primary level to middle junior high school level.

## CHAPTER V

### SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

This study has been concerned with diagnosing and analyzing disabled college level readers using the case-study approach to determine specific reading deficiencies, to describe disabled college readers' behavior, and to identify factors contributing to reading deficiency.

Specifically, the purposes of the study were:

1. to identify specific reading disabilities in comprehension, word recognition, and rate;
2. to identify specific deficiencies in oral reading;
3. to identify and describe overt performances and behaviors of disabled college readers;
4. to determine attitudes and interests common to disabled college readers;
5. to identify socioeconomic factors contributing to deficiencies of college disabled readers; and
6. to identify types of self-concept exhibited by disabled college readers.

This study was restricted by six major limitations. First, the study was limited to four case studies. Secondly, no information was obtained from the elementary schools of each subject. Thirdly, the community relationships of the family was undetermined. Fourth, no complete psychological examination was made. Fifth, high school information was limited, due to the closing of schools and teacher transfers.

This study was conducted at Bishop College during the second semester of the academic year 1973-74. The subjects of the study were four black males, second semester, entering freshmen. The ages of the subjects were 19, 19, 20, and 24. One subject's home was in the South, two subjects were from large eastern cities, and one subject was from a city in the Southwest.

Background information--which included a study of the subjects' homes, parents, high schools, high school teachers, college environments, and college teachers--was obtained from interviews, questionnaires, home information report forms, teacher report and information form, and peers. Copies of the forms are given in the Appendix. These sources of information supplied the data necessary to establish positive and/or negative environmental factors. Also, the information aided in identifying possible causal factors that may have contributed to the subject's personality findings and reading status.

The California Test of Personality and the Tennessee Self-Concept Scale were used to determine the subject's emotional and personality characteristics. The results of the California Test of Personality determined the social and/or personal adjustment or maladjustment of the subjects. Specific areas within each category were identified. The Tennessee Self-Concept Scale verified positive or negative self-concepts of the subjects. The Scale also classified the mental health status of each subject.

Determination of attitudes was obtained from the California Study Methods Survey and an informal inventory. The categorized responses from the two measures defined positive or negative attitudes toward school, mechanics of study, and planning and system. The informal

inventory specified reading interests, interests in general, reading habits, and tastes and gave an indication of the extent of cultural involvement.

An examination of the college health record, information from the health part of the home and school report form, and interviews ascertained the physical findings. These sources aided in delineating physical handicaps along with the visual and hearing screening tests.

Aptitude was assessed according to the findings on the California Short Form Mental Maturity Test, Level 5, and the Wechsler Adult Intelligence Scale. The findings from these measures identified the level of intellectual functioning, predicted behavior, and pointed out the effects of a sub-culture identity on measures of intelligence.

The reading evaluation for the subjects was obtained from a number of assessment instruments. Tests were grouped according to the information desired and type or kind of test. The broad screening instruments were the Nelson-Denny Reading Tests, Form A, and the Gates-MacGinitie Reading Tests, Survey E, Form 1M. These measures yielded a quick estimate of the subject's general reading ability and level of this ability. These measures also aided in determining the direction of further diagnosis.

Silent reading abilities and/or disabilities in comprehension were obtained from the results of the Bond-Balow-Hoyt New Developmental Reading Tests, Intermediate Level, Form B, Bond-Balow-Hoyt Silent Reading Diagnostic Tests, and the SRA Reading Record, Second Edition. The specific comprehension skills and the level of disability were identified for each subject.

Rate of reading for each subject was determined on the Diagnostic Examination of Silent Reading Abilities, Rate of Comprehension Scale, Form D, and the Basic Reading Rate Scale, Form A. These measures defined the number of words read per minute and the degree of understanding on simple paragraphs.

Oral reading strengths and/or weaknesses were obtained from the Gray Oral Reading Paragraphs, Form A, and Oral Reading Passages. The subject's performances on these measures identified specific deficiencies in sight word vocabulary, rate of oral reading, word recognition, techniques, and strategies used during the oral reading act. The results of the tests provided a basis for classifying word recognition errors and established an error pattern for each subject. Thus, specific disabilities were identified.

A more analytical diagnosis of word recognition skills was determined on the Durrell Analysis of Reading Difficulty, subtests of Word Recognition and Word Analysis, Visual Memory of Words, Hearing Sounds in Words, and Phonic Spelling of Words, administered to three subjects; Roswell-Chall Diagnostic Test of Word Analysis Skills; Wide Range Achievement Test, Vocabulary Section, and the Silent Reading Diagnostic Tests, Subtests V, VI, VII, and VIII. The results of these measures served to show more clearly the specific deficiencies of the subjects in word recognition skills.

A study of the home environment, high school and college records for each subject determined similarities and differences among and between the subjects. Differences in background were exemplified through the educational level of the parents of the subjects, the socioeconomic level of the family, and the basic family structure. Differences were



also noted in the early childhood experiences of each subject, amount and kind of parental guidance, parents' level of expectations, and the kind of experiences provided. High school experiences were found to have been more alike than unlike. All of the subjects were academically poor students, made low grades, and were not outstanding students in high school. Teacher expectations for the subjects were low in high school and college. College grade point averages were low with each subject making failing grades and neither subject involved in college activities.

The intellectual level of the subjects was low normal for three subjects, while one subject was dull normal. Positive self-concepts were found in two subjects and negative self-concepts were exhibited by two subjects. All of the subjects were in good physical condition. Personality findings showed one subject with a psychological disturbance and one subject disturbed.

The interests and activities for three subjects were alike. One subject differed very much. None of the subjects liked to read or had read widely. All of the subjects were impoverished culturally, educationally, and socially.

The reading survey tests showed a reading disability for all of the subjects in vocabulary, comprehension, and rate of reading. Two of the subjects were more disabled in these reading skills.

Types of reading disabilities for all subjects, according to the diagnostic measures, were the same, but the level or degree of disability was different. General or basic vocabulary was found to be a disability for all subjects. The level of the disability was from a

primary level to beginning junior high school level. The degree of disability was severe disability in one instance to low in the other cases.

With regard to comprehension, according to the three measures, the subjects were disabled in skills of comprehension. In general comprehension, the level of the disability was at the intermediate and beginning junior high school level and the degree of disability for all subjects ranged from 4.3 to 9.1.

Rate of reading was found to be a disability for the subjects. The subjects showed variable rates and levels. The average rate of reading for the subjects in simple content and understanding of simple paragraphs was very low with an average number of words per minute at 130. With respect to rate of reading for the two measures used, the subjects' typical reading was poor and was a definite disability.

With regard to word recognition skill, a disability was demonstrated in recognition skill, recognition techniques, and phonic knowledge. The level of performance of the subjects was at the intermediate level, with two subjects in phonic knowledge at the middle primary level and one subject at the upper primary level. Word recognition skill, when applied to words in isolation and words in context, was nearer an intermediate level with skill in words in context slightly above skill in words in isolation. Commensurate with these findings were the disabilities in word analysis skills. Disabilities of the subjects were shown by three subjects in single consonant sounds, consonant combinations, short vowel sounds, silent e rule, and tendency toward disability in syllabication. The subjects evidenced a very real disability in word recognition skills.

Oral reading skills, according to two measures, reflected the kind of disability shown on the other measures. Rate of reading was slow, with a level of oral reading for two subjects at the primary level, with two subjects at the intermediate and junior high school level. Oral reading reflected the disabilities found in word recognition skills. Errors were categorized as primarily omissions, additions, repetitions, and corrections. Partial mispronunciations were not common to all subjects. Visual-perceptual errors were numerous, these consisted of initial, medial, final, and syllabic division. Visual-auditory type errors were of single consonant, consonant blend, diagraph, and diphthong. Few errors were made in sight words. Noticeable findings of oral reading errors were that as the difficulty level of a paragraph or passage increased the pattern of errors changed for two subjects, whereas there was no change once the frustration level was reached for two subjects. This pattern of change followed a decrease in repetitions and a change in strategy which was accompanied by an increase in rate of reading.

The summarized findings serve to show the specific reading deficiencies of the college freshmen used in the study. Within the limitations of the study and based on the findings, the following conclusions seemed justified.

#### Conclusions

What were the specific disabilities of the subjects in comprehension, word recognition, and rate?

The subjects' specific disabilities in comprehension were in general comprehension, literal comprehension, and

creative comprehension. The level of the disability in comprehension was at the intermediate level.

Disabilities in word recognition were in word recognition skill, recognition techniques, and phonic knowledge. Specific areas of the disability were in word analysis skills, consonant sounds, consonant blends, short vowel sounds, and silent e. The level of the disability was at the primary level.

Rate of reading on simple content and understanding of simple paragraphs was inadequate. The rate of reading or words per minute ranged from 55 to 130.

What specific disabilities of the subjects were exhibited in oral reading?

The subjects' oral reading disabilities were in omissions, additions, repetitions, and corrections. Word errors were visual-perceptual and the pattern was initial, medial, and ending. Rate of oral reading was slow. The level of the oral reading was from primary to beginning junior high school.

What overt performances aid in describing the reading behavior of the subjects?

The reading behavior of these disabled readers reflected the individual personalities, frustrations, and disturbances of each subject. Silent reading behavior common to all subjects was slow rate of reading, disability in comprehension, word recognition, and vocabulary.

Oral reading behaviors exhibited by all subjects were lack of expression, poor phrasing, poor enunciation, and voice tone.

Other behaviors, as observed, were constant lateness for a testing session and rarely asking questions after directions for a test had been given.

What socioeconomic factors of the subjects were found to be common to reading deficiencies?

Negative socioeconomic factors common to reading deficiencies found among the subjects were early childhood and later cultural experiences, failure of high schools to identify the reading disability, lack of counseling in high school, failing grades in subjects requiring proficient reading skills, and the frequent change in elementary and secondary schools.

What were the interests and attitudes of the subjects?

Attitudes of the subjects were positive toward school, home, and community. Interests of the subjects were in sports and religion.

What were the self-concepts of the subjects?

Self-concept for two subjects was positive, whereas self-concept was negative for two subjects. One subject showed a tendency toward a psychological disorder with one subject leaning toward a disturbed category.

### Recommendations

The foregoing conclusions prompt the following recommendations:

1. That this study be replicated by similar colleges to determine if the findings of this study are applicable.

2. That more extensive investigations be made with other groups in other situations to identify specific deficiencies of disabled college readers.

3. That college teachers of reading begin to compile data on the disabled college reader to aid in determining the direction of college reading programs as related to disabled college readers.

4. That colleges enrolling predominately black students begin to compile data on disabled readers for the purposes of identifying specific reading deficiencies and characteristics peculiar to black students and evaluating the appropriateness of the present measurement instruments.

5. That high schools identify and classify readers at the beginning of high school, and on the basis of identification provide a means for students to receive instruction in reading according to their needs and abilities.

6. That high school counseling programs be strengthened in areas that frequently serve to inhibit reading and learning development.

7. That investigations be made of the deficiencies of disabled college readers to establish the relationship of beginning and elementary reading method to type(s) of reading deficiencies of disabled college readers.

### Research Implications

This study has provided some answers to the questions posed as a part of the problem. However, additional research needs are discernible. The exploration of these needs might lead to increased knowledge of the specific reading deficiencies of black college students. The specific research implications include the following:

1. Preventative counseling at the elementary school level will have a positive effect on the reading performance of black students.
2. Severe reading disabilities at the college level are related to the type and/or kind of elementary school reading approach.
3. The type and/or kind of high school reading program will determine the level and kind of reading disability found among college freshmen.
4. Reading courses, evaluational practices, and instructional methods at the college level correlate highly with the types of readers, the levels of abilities, and disabilities of college students.

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## APPENDIX

Bishop College  
Dallas, Texas

Dear

You have been selected to participate in a research study as a part of a doctoral dissertation. As a participant, you will be asked to sit for a battery of tests, individual and group. These tests will require approximately a total of twelve hours to administer. Each testing session will last approximately four hours. In addition to the tests, you will be asked to respond to some questionnaires. Also, your parents, former high school(s), and elementary school(s) will be contacted for information pertinent to the research.

Because of the nature of the test, you will be asked to be tested in the evenings after school and/or on Saturday.

You will be compensated for serving as a subject.

If you will consent to serve as a subject, please sign the form below.

Thank you for your cooperation.

Very truly yours,

Nellie D. Wiggins

I \_\_\_\_\_ consent to be a subject for the research, and will cooperate fully by supplying the necessary information asked for. Further, I will notify my parents of such agreement.

## INFORMATION SHEET

Name \_\_\_\_\_ Sex \_\_\_\_\_ Classification \_\_\_\_\_

Home Address \_\_\_\_\_ Phone \_\_\_\_\_

Street City State

School Address \_\_\_\_\_ Phone \_\_\_\_\_

Age \_\_\_\_\_ Date of Birth \_\_\_\_\_

Place of Birth \_\_\_\_\_ Number in Family \_\_\_\_\_

Parents' Name

Father \_\_\_\_\_

Last First Middle

Mother \_\_\_\_\_

Last First Middle

Parent's Address Father \_\_\_\_\_

Mother \_\_\_\_\_

Brothers: Number \_\_\_\_\_

Brothers' Names Age Grade

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sisters: Number \_\_\_\_\_

Sisters' Names Age Grade

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of High School Attended \_\_\_\_\_

Name City State

Date of Graduation \_\_\_\_\_

Activities Liked Best (1) \_\_\_\_\_ (2) \_\_\_\_\_

(3) \_\_\_\_\_

Passive Activities Liked \_\_\_\_\_

Active Activities Liked \_\_\_\_\_

Kinds of Readings Liked Best \_\_\_\_\_

\_\_\_\_\_

Kinds of Stories Liked Best \_\_\_\_\_

Cultural Activities Attended \_\_\_\_\_

\_\_\_\_\_

Extended Trips or Places Visited \_\_\_\_\_

\_\_\_\_\_

Hobbies \_\_\_\_\_

Life Goals \_\_\_\_\_

\_\_\_\_\_

College Major \_\_\_\_\_ Minor \_\_\_\_\_

Bishop College  
Dallas, Texas

Dear

Your \_\_\_\_\_ was selected and agreed to participate in a research study conducted on the college campus. Your consent also involves you as parents. This involvement will consist of responding to a questionnaire and being interviewed in your home by the researcher. Will you consent to support your child in this endeavor?

If you will consent, arrangements for a suitable, convenient date and time will be made as soon as you notify me.

Enclosed is a statement of consent and a stamped addressed envelope. Please return the statement immediately.

I look forward to meeting and visiting with you.

Yours very truly,

Nellie D. Wiggins

We \_\_\_\_\_ will will not  
Parents Name Circle the  
consent to serve as supporters to our appropriate one  
as a subject in the research.  
We agree to respond to the questionnaire and  
to be interviewed.



## College Teacher Interview Guide

Course \_\_\_\_\_ Teacher \_\_\_\_\_

Number in class \_\_\_\_\_

Evaluate the subject's performance.

Rank the subject.

What are the subject's strengths?

What are the subject's weaknesses?

What are the special needs of the subject?

What specific deficiencies does the subject have?

Is the subject usually present?

Is the subject late for class?

What kinds of excuses does the subject give for his absences and/or tardiness?

Does the subject (usually) turn in assignments on time? If he doesn't, what type or kind of reason does he give?

Where does the subject sit in class?

Does the subject enter into the class discussions?

Does the subject usually respond to questions?

Has the subject had a conference with you regarding the quality of his work, to get special help, or to find how he can improve in your class?

Do you think the subject has an adequate background for college? If not, explain.

Does the subject appear to be interested, motivated?

Does the subject ask questions in class?

Do you feel the subject knows how to study?

Are the subject's reading skills adequate for achievement in this course?

If you were asked to rate the subject's performance on a scale of 1 - 5, with 1 the highest, how would you rate the subject?

## Parent Interview Guide

Name of Subject \_\_\_\_\_ Date \_\_\_\_\_

Name of Respondent \_\_\_\_\_ Relation \_\_\_\_\_

Address \_\_\_\_\_

1. Number of persons living in the home \_\_\_\_\_.
2. Martial status \_\_\_\_\_. How long have you been divorced \_\_\_\_\_? How long has your husband been deceased \_\_\_\_\_?
3. How old was the subject at this time \_\_\_\_\_?
4. What affect did the (divorce) (death) of your husband have on the subject? \_\_\_\_\_
5. What specific incidents happened after your husband's (death) your divorce? \_\_\_\_\_
6. Which parent did the subject appear to prefer \_\_\_\_\_?
7. Home: Renting \_\_\_\_\_ Buying \_\_\_\_\_ Own \_\_\_\_\_ Number of Rooms \_\_\_\_\_
8. Approximately how often did you move during the subject's elementary schooling \_\_\_\_\_?
9. Describe the neighborhoods you have lived in. \_\_\_\_\_
10. What is the religious preference of the family \_\_\_\_\_? Do you attend this church regularly \_\_\_\_\_? Did you take the subject to Sunday School as a child \_\_\_\_\_? As the subject grew older, did you force him to attend Sunday School Church other \_\_\_\_\_? Does the subject attend religious services now \_\_\_\_\_?
11. As a child, did the subject require severe punishment mild punishment no punishment reprimanding? What method of punishment did you use? \_\_\_\_\_
12. What major problems did the subject have as a child? \_\_\_\_\_
13. How do you perceive your son? \_\_\_\_\_

14. Tell me about yourself?. Your interests, likes, dislikes, work, recreation, your happiest moments, your life with your spouse.

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15. Describe your son as a child, teenager, young adult. \_\_\_\_\_

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Observation of Respondent

## Rate the Subject

Circle one of the four figures beside each phrase that best describes the subject 1-high 2-average 3-low 4-not sure and 5-never.

## I. Social

- 1 2 3 4 5 Popular at school  
1 2 3 4 5 Takes part in school activities  
1 2 3 4 5 Kind and thoughtful with others  
1 2 3 4 5 Can depend on him  
1 2 3 4 5 Generally friendly  
1 2 3 4 5 Shares with others  
1 2 3 4 5 Polite

## II. Emotional

- 1 2 3 4 5 Happy  
1 2 3 4 5 Calm  
1 2 3 4 5 Cries easily  
1 2 3 4 5 Irritable and nervous  
1 2 3 4 5 Honest  
1 2 3 4 5 Jokes and takes jokes  
1 2 3 4 5 Sad  
1 2 3 4 5 Easily discouraged  
1 2 3 4 5 Temper tantrums  
1 2 3 4 5 Tells truth  
1 2 3 4 5 Obeys  
1 2 3 4 5 Accepts responsibility

## III. Mental

- |   |   |   |   |   |                             |
|---|---|---|---|---|-----------------------------|
| 1 | 2 | 3 | 4 | 5 | Directs himself             |
| 1 | 2 | 3 | 4 | 5 | Talks well                  |
| 1 | 2 | 3 | 4 | 5 | Ability in music and/or art |
| 1 | 2 | 3 | 4 | 5 | Ability with machines       |
| 1 | 2 | 3 | 4 | 5 | Does school work well       |
| 1 | 2 | 3 | 4 | 5 | Intelligent                 |

## IV. Work Habits

- |   |   |   |   |   |                             |
|---|---|---|---|---|-----------------------------|
| 1 | 2 | 3 | 4 | 5 | Orderly and neat            |
| 1 | 2 | 3 | 4 | 5 | Finishes or completes tasks |
| 1 | 2 | 3 | 4 | 5 | Works well alone            |
| 1 | 2 | 3 | 4 | 5 | Works well with others      |
| 1 | 2 | 3 | 4 | 5 | Interested in school        |

VITA

Nellie Dawson Wiggins

Candidate for the Degree of

Doctor of Education

Thesis: CUMULATIVE READING DEFICITS OF FRESHMAN COLLEGE STUDENTS

Major Field: Secondary Education

Biographical:

Personal Data: Born in El Reno, Oklahoma, March 23, 1923, daughter of Mr. and Mrs. J. S. Dawson, Jr.

Education: Attended elementary and secondary school in Luther, Oklahoma; graduated from Washington High School in 1940; received the Bachelor of Science in Music Education degree from Lincoln University, Jefferson City, Missouri, in June, 1946; received the Master of Arts degree from Atlanta University, Atlanta, Georgia, with a major in Secondary Education with emphasis on reading, in June, 1962; completed requirements for the Doctor of Education degree at Oklahoma State University, in July, 1974.

Professional Experience: Instrumental and vocal music teacher, Attucks High School, Ponca City, Oklahoma, 1946-1950; first-grade teacher, Attucks Elementary School, East St. Louis, Illinois, 1953-1956; vocal music and seventh grade language arts, Clark Elementary School, St. Louis, Missouri, 1956-1958; band and music education, Edward Waters College, Jacksonville, Florida, 1958-1959; junior high school general music, Northwestern High School, Jacksonville, Florida, 1959-1960; graduate assistant in reading, Spelman College, Atlanta, Georgia, 1960-1961; graduate assistant in research, Atlanta University Reading Center, Atlanta, Georgia, 1961-1962; junior high school vocal music teacher, Scott Junior High School, Savannah, Georgia, 1962-1964; fifth grade teacher, Jackson Elementary School, Savannah, Georgia, 1964-1965; reading consultant, Savannah State College, Summer Reading Workshop, Savannah, Georgia, Summer, 1961; Summer, 1962; Summer, 1963; Director of Reading and Chairman of Reading Department, Bishop College, Dallas, Texas, 1965 to present.