A STUDY OF TWO STAFF-DEVELOPMENT TECHNIQUES

FOR TEACHERS OF ADULT READING IN TEXAS

DISSERTATION

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Cynthia L. Radeka, M. S.

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This study examines two methods of in-service preparation
for teachers of adult reading. The first method, known as
Developing Adult Reading in Texas (DART), uses single concept
modules which deal with five specific components of the reading
process. The components are Comprehension, Vocabulary, Moti-
vation, Word-Attack Skills, and Diagnosis. The modules
provide for teacher involvement and focus on one reading con-
cept at a time. The second method is defined as non-focused
reading instruction. Subjects receive information of a
general nature concerning the same five components of the
reading process. A lecture format is used for presenting the
information. The hypothesis was tested that the DART-focused
method utilizing modules is superior to the non-focused
method.

The purpose of this study was to determine if the five
DART modules are effective in bringing about cognitive
changes in teachers of adult reading.

A survey of the related literature indicates a need for
further research toward developing in-service preparation
programs for adult educators.

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The subjects in this study were 271 teachers of adult reading. The 205 teachers in Group I were divided into five smaller groups according to assigned modules and received instruction using the DART method. Post-test scores on the DART test instrument were used as the measurement criterion. The thirty-four teachers in Group II received non-focused instruction. Post-test scores on the DART instrument were used as the measurement criterion. The thirty-two subjects in Group III received only the DART post-test.

The DART test was developed after reading professionals verified that, insofar as is known, no standardized test exists for measuring cognitive gains acquired as a result of adult reading staff development. The instrument may be used in other adult reading staff-development programs. A panel of five judges stated that the content represented by citing a specific reading topic does not vary even if the method of presentation varies. The test was content validated by a team of five reading specialists. The reliability coefficent for the total test was .88.

The statistical hypothesis of no significant difference in adjusted post-test scores between Group I and Group II was treated by analysis of covariance with pre-test scores serving as the covariate. The DART Group achieved significantly higher adjusted scores on the post-test for all five reading variables than those in Group II. The hypothesis of no significant difference in cognitive skills between Group I

and Group III was treated by analysis of variance followed by the Scheffé procedure for testing comparisons between means. The DART Group achieved significantly higher scores on the post-test for all five reading variables than those in Group III.

This study concludes that from a cognitive standpoint, adult reading in-service preparation which focuses on a specific skill has more viability for improving instruction than in-service preparation which deals with the subject in a more general manner.

It is recommended that a replication of this study be conducted in which participant variables which might differentially affect post-test scores are held constant. These variables include gender, race, and educational background. The effect of such variables could then be partialled-out so that the impact of the experimental control would more clearly be the result of the experimental treatment.

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CHAPTER I

INTRODUCTION

Staff development for adult educators reflects, in theory, the philosophy of adult education. Basically, such a philosophy holds that every adult learner should be provided opportunities to develop his unique abilities as an individual, a family member, a worker, and a citizen in order to participate effectively in a free society (12, p. 5). Adults bring varying interests, abilities, motivations, and experiences to the classroom. Knowledge of the adult's complex developmental processes enables the teacher to provide more effective instruction. In-service staff development seeks to provide teachers with this knowledge (26, pp. 298-299).

This study evaluated the effectiveness of a project with the acronym DART, Developing Adult Reading in Texas. The primary goal of the project was the development of a program which would provide staff development for teachers of reading in existing Adult Basic Education programs in the state of Texas.

Staff development should be considered a continuous process of learning ways to teach adults effectively. According to the National Center for Educational Statistics (17), most Adult Basic Education (ABE) teachers and administrators have

participated in staff-development programs. In 1971-72, 72 percent of all ABE personnel received pre-service and/or in-service training as reported by state ABE directors (5).

As Kidd points out in How Adults Learn (8), adult educators are searching for adult learning theories which apply equally to the more specific area of ABE. This indicates a need for careful planning in the implementation of particular staff-development programs. Even though theory is still being formulated, adult educators cannot afford the luxury of waiting until a complete body of knowledge exists. In view of the nearly unanimous agreement as suggested by Ulmer and others (26, 1,10, 13, 14, 18, 20), adult educators (mostly those for whom teaching adults is a second job) need some initial preparation as well as continuous education in order to ease their transition from a teacher-centered to a learner-centered environment.

Project DART was designed using those adult learning principles which have been defined, while providing techniques which can be used in teaching the adult how to read.

This special project received funding from the Texas Education Agency through the College of Education at North Texas State University. First year funding (spanning ten months) was granted for the purpose of reviewing existing research in the area of adult reading, for assessing needs in the area of adult reading, and for the development of the actual reading modules.

In June of 1976, second year funding for the fiscal
year 1976-77 was received in order to accomplish project
goals. These goals included completion of modules, com-
pletion of a video tape to introduce the modules, preparation
of pre- and post-assessment instruments for each module, ini-
tiation and completion of field testing, and revision of
the ten modules.

The DART project began with a review of the literature
which revealed that this endeavor was not replicating any
current project either in the state of Texas or in the
nation.

One of the immediate goals of the project was the iden-
tification of needs in the area of adult reading. After a
review of recent research in reading and consultation with
other reading professionals, a needs assessment instrument
was developed which outlined twenty areas of reading. These
areas were designated by four professionals, three in the
field of reading and one in the field of adult education,
as those most critical to the reading process. The four
professionals were selected by the program area head in
reading at North Texas State University. The resulting
instrument was administered to a total of 214 teachers, admin-
istrators, and university personnel responsible for skills
development in reading and in adult education in Texas (see
Appendix A). The respondents were asked to rank the ten
areas which they felt most important to a program of staff

development for teachers of adult reading. In rank order, those selected were as follows:

1. Comprehension
2. Vocabulary Development
3. Motivation
4. Word-Attack Skills
5. Readability
6. Diagnostic and Evaluative Skills
7. Reading Approaches
8. Listening
9. Study Skills
10. English as a Second Language.

In order to corroborate the validity of the results of the needs-assessment instrument, a module validity instrument was constructed (see Appendix B). This instrument was used to determine the appropriateness of each reading topic included in the DART staff-development program.

In addition to the original panel of four reading professionals who designated the twenty areas of reading contained in the needs-assessment instrument, a panel of five other judges was selected on the basis of their professional credentials in the area of reading. The validation panel was asked to determine if the skill areas and module objectives are appropriate in an adult reading program. The panel was also asked to rank in order of importance the ten DART reading areas most crucial to the total reading process. This was done using a Q-sort technique. After computing results from all five judges, the five module topics that received the highest rankings were included in this study.

Those validation results rank ordered the modules as follows:

1. Comprehension
2. Vocabulary Development
3. Motivation
4. Word-Attack Skills
5. Diagnostic and Evaluative Skills
6. Readability
7. Reading Approaches
8. Study Skills
9. English as a Second Language
10. Listening.

The module topics which received the highest rankings through the validation process were compared with the module topics which received the highest rankings through the needs assessment process. The validation results differed from the needs assessment results in only one case. The results of the needs assessment showed that teachers ranked the reading skill area of readability as fifth and diagnostic and evaluative skills as sixth most important to a program of staff development for teachers of adult reading. The validation panel of judges ranked diagnostic and evaluative skills as fifth and readability as sixth in importance for inclusion in a program of staff development for teachers of adult reading. Since the validation results did differ in this one case from the needs assessment results, the appropriate changes in the hypotheses for this study were made and the following DART modules were evaluated for this study:

1. Comprehension
2. Vocabulary Development
3. Motivation
4. Word-Attack Skills
5. Diagnostic and Evaluative Skills.

Purposes of the Study

The purpose of this study was to find out if the DART modules are effective in bringing about cognitive changes in teachers of adult reading. The study focused on the following specific objectives:

(1) To ascertain the effectiveness of each of the first five modules developed as a result of findings in the needs assessment phase;

(2) To provide a basis for in-service staff development for teachers of adult reading;

(3) To make recommendations regarding teacher preparation and selection for ABE programs.

Hypotheses

To carry out the purposes of this study, two hypotheses were tested:

H_1: Teachers in Group I* will achieve significantly higher adjusted post-test means in cognitive skills than will those in Group II** on a

H_1 a. post-test for Comprehension

H_1 b. post-test for Vocabulary Development

H_1 c. post-test for Motivation

H_1 d. post-test for Word Attack Skills

H_1 e. post-test for Diagnostic and Evaluative Skills

* those who complete one or more DART modules

** those who receive a non-focused adult reading staff-development program

H_2:   Teachers in Group I will show significantly higher post-test means in cognitive skills than will those in Group III*** on a

H_2 a.   post-test for Comprehension

H_2 b.   post-test for Vocabulary Development

H_2 c.   post-test for Motivation

H_2 d.   post-test for Word-Attack Skills

H_2 e.   post-test for Diagnostic and Evaluative Skills

***those who receive no staff development
in adult reading

Significance of the Study

Teachers of adult reading, until 1964, were concerned with improving the reading skills for a fairly small group of adults. Adults were taught in business or armed forces programs or they came to learning centers and paid for a course in reading improvement.   In 1964, as part of President Lyndon Johnson's "War on Poverty", federal funds were first appropriated for adult basic education.   The Adult Education Act of 1964 provided funds needed for teaching illiterates or functional illiterates how to read. This Act was the first acknowledgment on the part of legislators of the urgency for teaching reading skills in order that adults might be able to get and keep jobs in a country where technology is rapidly reducing the number of available unskilled jobs. At the time the Economic Opportunity Act was passed, there were few persons prepared to plan and to administer literacy programs. When funds were made available

in 1965 to develop adult basic education programs, one of the
first problems to be faced was a lack of qualified teachers and a
lack of materials appropriate to adult basic-education students.
Smith said in 1965,

> New materials need to be developed, new methods
> discovered, and additional teachers must be
> found and trained to meet the reading needs of
> these men and women. Adult reading instruction
> is now faced with its greatest challenge! (23, p. 375)

Even with the money and the interest generated over the
past decade in response to the problem of adult illiteracy,
there still have been very few research studies which deal with
staff development in adult reading. There have been on the
average, 300 studies a year for the last ten years dealing with
college reading programs (2, 9, 15, 16, 21) but very few dealing
with the adult basic reader.

Blanton and Smith (2) also point out that only two studies
dealing with the staff development of college-adult reading
teachers appeared in the literature from May, 1973, to May, 1974.
They concluded that the research reported during 1973 served to
highlight the fact that very little was known about the training
of reading teachers through the device of staff development.

The current legislation under which the adult basic edu-
cation program operates provides for staff development. Unfor-
tunately, there is a wide gap between the theoretical ideal of
staff development as a process of equipping teachers with the
appropriate knowledge, skills and attitudes to enable them to
teach adults and the often encountered attitude of teachers

that staff development is an imposition and they do not expect to learn anything (24). Staff development is too often seen as simply a requirement for continued employment.

The importance of staff development as a way to equip teachers with skills necessary to teach adults is undisputed in the literature. Pagano (20) has said that time should be planned for continuing in-service preparation of teachers, that in-service preparation is of paramount importance for teachers of adults. Neff (18) sent a questionnaire to the fifty state directors of ABE and the respondents identified staff development as second in order of critical priority after obtaining appropriate materials. LaPlante (11) found that Job Corps teachers of reading were helped most by in-service preparation in reading. He also found workshops to be an extremely potent force in changing expressed attitudes of teachers. Mocker (14) contends that staff development is of prime importance since ABE programs have begun to proliferate as a result of federal funding.

Mocker (14) also identifies high-priority skill areas which can be taught to teachers in staff-development programs. The three areas in which the teacher should be competent are: (1) the primary comprehension skills, (2) vocabulary skills, and (3) the sequence of reading skills.

Despite the acknowledgment of its critical importance, one criticism stands out above all others regarding the literature on adult basic education and staff development:

single solutions are being sought for problems with multiple causes. Nonproductive efforts are frequently attempted seeking a single best answer to such questions as: What is the best method of preparing adult basic education teachers? What is the best curriculum for teaching illiterate adults? What kind of person makes the best teacher for adult illiterates? What is the best way of teaching illiterate adults? What is the best way to test adults? Questions such as these assume that the issues are simple when indeed they are complex.

Griffith (7, p. 5) says that one approach to conducting rigorous research in adult education is to restrict the problem to modest proportion so that by careful control the investigator can speak with assurance regarding the relationships among a restricted number of discrete variables.

It would seem that the greatest advances in our know-ledge of adult basic education will come about only after those who do research in the field begin to ask more basic questions concerning teachers, students, curriculum, and methods. Only as detailed descriptions are provided for each of the interacting variables will research findings begin to accumulate.

The research studies quoted here emphasized the scarcity of research data having to do with teaching reading to adults. At the same time, the necessity for narrowing the research concern and amassing a research base in short cumulative steps was strongly accentuated. Therefore, it seemed appropriate

to attempt to strengthen and expand the research base for ABE staff development in the critically important area of reading.

Definition of Terms

For purposes of this study these terms are defined as follows.

Adult basic education--an instructional program for the undereducated adult planned around those basic and specific skills most needed to help him function adequately as a member of society (6, p. 16).

Adult basic education learner--a person sixteen years of age or older who has not achieved an eighth-grade education or its functional equivalent and who is enrolled in an ABE program (14).

Adult education co-op--one of more than fifty administrative sub-divisions of the Texas Public Adult Education Program.

Adult reading program--an instructional program intended for the improvement of the reading skills of adults; included are programs for illiterate adults, speed reading courses, general development courses and remedial instruction (6, p. 442).

Literacy--the ability to read and write and to use these skills as tools for obtaining information and expressing thoughts. This basic level of skill development is comparatively equivalent to that typically attained by children in the first four years of school (20, p. 4).

Module--a set of learning activities managed by behavioral objectives which permit self-pacing, individualization, personalization and independent study. A module allows for both pre- and post-assessments of strengths.

Non-focused reading instruction--receiving information of a general nature concerning the broad topic of reading as opposed to receiving information related to very specific reading skill areas.

Staff development--a continuous process of identifying the knowledge, skills, attitudes and behaviors necessary for individuals to manage learning environments effectively, and to provide educators an opportunity to acquire these competencies. In a program, staff development can be seen as the extent to which provisions have been made for a continuous process of identification of needs, availability of training and reassessment of an educator's knowledge, skills, attitudes, and behaviors (5, p. 2).

Delimitation

This study was limited to those teachers in Texas who were teaching in adult basic education programs in the 1976-77 school year.

Basic Assumptions

It is assumed that teachers responded honestly and to the best of their ability to the instruments used to measure knowledge and understanding of reading skill areas. It is

also assumed that teachers completed a module according to directions before taking the post-assessment.

Instruments

A 129 item pre-test having five subscales was developed. Four subscales contain multiple choice questions, and one subscale (motivation) contains true or false questions. A post-test using the same questions as the pre-test was also designed. The question order on the post-test was randomly assigned. The test was content-validated by a team of five reading specialists from North Texas State University. The pre-test was administered to a class in secondary school curriculum methods. Item analysis indicated a total of eighty-seven items as those most consistent with the total test (see Appendix C). These eighty-seven items were retained for use in the final instrument. The scores received on the post-tests were the criteria for determining the effectiveness of the DART modules.

Reliability was established by administering the test to another class in school curriculum methods, a population assumed to have characteristics similar to the target population. The test-retest method (22, pp. 132-133) was used and the instrument was administered to the same sample seven days apart. A reliability coefficient using Pearson's product-moment correlation was calculated for each subsection and for the total test. All reliability coefficients except motivation

ranged from .62 to .76. The reliability coefficient for Motivation was .45. The reliability coefficient for the total test was .88.

Procedures for Collecting Data

Population Frame. The population in this study was selected from teachers throughout the State of Texas who taught adults and who also attended in-service staff development workshops in the fall and spring semesters of academic year 1976-77.

A letter from the program director of the Division of Adult and Continuing Education, Texas Education Agency, was sent to each of the fifty-two adult education co-op directors in the State of Texas. This letter (see Appendix D) explained that field testing of the DART modules was ready to begin. Interested directors were asked to correspond with the DART project director to arrange for an in-service staff development workshop utilizing one or more of the DART modules. The project staff was responsible for administering the staff-development program to approximately 400 teachers. These teachers had some part in all facets of the DART evaluation. Demographic data (see Appendix E) was collected in order that a profile of participants in adult education staff-development programs could be indicated. For purposes of this dissertation, 205 teachers were divided into five groups according to assigned modules.

The research design utilized for this study was based on an adaptation of the factorial example of Campbell and Stanley's Design number six, post-test only control group. In the DART comparison study, the pre-test was used as a covariate. Three groups were used. Group I consisted of the five groups of teachers who completed at least one of the five DART modules.

For Group II an adult education co-op, identified by the Texas Education Agency as exemplary in providing conventional staff development in reading, was used as a comparison. Group II consisted of thirty-four adult education teachers. They received a comparable number of hours training in a conventional staff-development program; that is one defined as using non-focused teaching methods. By non-focused teaching is meant they received information of a general nature concerning the broad topic of reading. This is opposed to Group I who received the DART treatment, a focused program of teacher involvement in very specific skill areas using material managed by behavioral objectives.

Group III consisted of thirty-two adult education teachers who received no formal reading staff development.

Statistical Analysis

The statistical procedure necessary to test Hypothesis I required an analysis of covariance, using the DART pre-test as the covariate. The statistical procedure necessary to test Hypothesis II required an analysis of variance to be

computed for each of the three groups. This was followed by the Scheffe procedure for testing any and all possible comparisons between means.

The statistical data are presented in table form. From the findings, conclusions are drawn, educational implications are stated, and recommendations are made.

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CHAPTER II

SURVEY OF RELATED LITERATURE

Background

The Adult-Education Movement

The basic concept of education for adults is not a new one. Efforts by adults to learn throughout their individual lifetime have continued with varying force for two thousand years (23). Grattan (16) traces the concept back to the beginning of recorded history, citing use of numerous informal methods to perpetuate culture.

In most countries, adult education evolved as a national program with definable character (28). In England and Sweden, adult education was designed to educate workers. In Denmark, the folk high schools were established to make representative democracy feasible. They brought together the intellectual and the common man to share the problems of everyday life. In the Soviet Union, adult education has served as an instrument of state policy so that required technical skills could be learned. Adult education activities in these countries have tended to be unified in their goals and in their institutional forms (28).

In the United States, the history of adult education can be traced to colonial days (53). It is generally thought by

historians that the Protestant revolt and the awakening of
Europe in the sixteenth century led to the development of
adult-education programs in the United States. As the colonies
moved toward independence, an awareness emerged that self gov-
ernment would require an educated citizenry (53, p. 38).

Adult-education activities in the United States began to
proliferate, randomly, as a response to a great variety of
needs, interests, and goals. The absence of dominance by any
one group has allowed diversification of adult education in
America, a fact that has been cited as a strength of the
national program (28, p. v). However, it has also produced
a confusion, which persists today, as to what the adult-education
movement includes and how it should be structured. As Knowles
said,

> Confusion about what the adult-education movement
> in this country encompasses and how it should be struc-
> tured has impeded persistent efforts toward better
> communication across lines of specialization, toward
> agreement on common social goals, and toward the
> achievement of some degree of coordination of activities
> within the filed. . . Indeed, there has been a contin-
> uing lack of agreement as to whether or not there is
> such a thing as an adult-education movement, the counter
> hypothesis being that adult education in this country
> is--and should properly be--a patternless mosaic of
> unrelated activities (28, p. vi).

The Reading-Education Movement

The lack of unity in the development of adult education
explains the belated inclusion of adult basic education (ABE)
and its core subject, reading, as a part of the adult-education
movement. However, from the onset of public education in
America, reading has held a place of primacy.

The earliest period of American reading instruction dates from the time of colonial civilization with its strong English influence. Throughout the years of America's growth, reading has continued to be the most important school subject (56). However, it was not until the period spanned by the years 1924-1935 that any interest was shown in high school, college, or adult reading. Even then, the focus was on speed reading at the college level rather than on either high school or adult reading (56, pp. 225-257). This limited interest in adult reading parallels the beginning of the major American interest in adult education in the 1920's (23, p. 24).

The period from 1935 to 1950 showed an increased interest in reading at the adult level, but again there were many more college-level programs and research studies dealing with these programs than at either the secondary or adult level (56, pp. 225-257).

For a short time during the 1930's, the Works Progress Administration (WPA) had a program for illiterates. During World War II, the Army discovered the extent of illiteracy and began a reading program. However, there was still little interest shown in the native illiterate until research in the social sciences in the early 60's showed a definitive rela-tionship between illiteracy and poverty (13).

During the 50's and until 1964, adults came to learning centers for instruction in reading improvement. The adults were not remediation cases, nor were they illiterate. In

many instances, reading tasks on the job became overwhelming and created the need for instruction in speed reading. Business and industry, along with the armed forces, have shown an increasing recognition of the need to improve reading skills of adults. In a sample of five hundred of the largest corporations in America in 1957, Patterson (46) found that 59 percent of those responding either had reading programs in progress of had had them within the past five years. Business executives were quick to see reading improvement as an efficiency measure for employees with extensive reading to do in connection with their jobs.

Adult Basic Education

As previously noted, adult reading before the year 1964 was concerned mainly with improving the existent reading skills of a comparatively small group of adults. These adults were taught in business or armed forces programs or they came to learning centers and paid for a course in reading improvement. The passage of the Economic Opportunity Act in 1964 signaled a significant legislative breakthrough long awaited by adult educators. This act provided the first federal funds needed for teaching illiterates or functional illiterates how to read (17).

Interest in adult basic education was focused at first on efforts to train adult illiterates under the Economic Opportunity Act of 1964. This program, which became operational

in 1965, was funded by the Office of Economic Opportunity
and administered by the Adult Education Branch of the United
States Office of Education. The Adult Education Act of 1966
shifted the funding and administration of the program to the
Office of Education. Congress has continued and increased
its annual appropriations for adult basic education and is
now exerting a major influence on the development of adult
education through its involvement in adult basic education
(17). DeSanctis (11) maintains that legislation enacted
since 1974 clearly indicates a continued expansion in the
scope of adult basic education.

Current Efforts in Teaching Reading

The large sums of money and the intense interest gener-
ated over the past decade in response to the problem of adult
illiteracy have produced very few research studies which deal
with reading in adult basic education (25, p. 368). Kreitlow
(31) also reports that even though more money has been spent
on research in adult literacy education in the decade between
1965 and 1975, little has actually been accomplished that
adds to the research base in adult literacy education.

The 1963 edition of The Handbook of Research on Teaching
concentrates on studies concerning children (52) and does not
report any research dealing with teaching reading to adults.
The 1973 edition of the same book (49) also focuses on reading
instruction for children. The yearbook of the National Reading

Conference, published each year in August, reviews the research
completed the previous year in the area of secondary-college-
adult-reading. Studies dealing with reading at the elemen-
tary level are included if they would be of interest to the
college-adult researcher because of methodological technique
or because they clarify the reading technique. The 1973 review
(51, pp. 23-88), reporting research from September, 1972,
to July, 1973, covers 349 studies reported in fifty-nine
journals. As an example of the paucity of reading research
dealing with adults, of 349 studies, seventeen dealt with
adult basic education in general; only six studies dealt with
reading instruction, reading materials, or reading programs
in adult basic education. Goldstein and McCormick (14)
examined the nature of a reading program within the Manned
Spacecraft Center. Driskill (12) reported on reading gains
and retention in a program judged to be effective. Smith
(55) outlined a scope and sequence of reading skills for
adult basic education students. Olsen (40) found a multi-
media approach to vocabulary development not to be effective
in word retention of the adult. Positive effects were found
in word recognition. Lipp (32) looked at characteristics
of reading teachers in ABE, while Sherk and Mocker (54)
surveyed ABE teachers in the United States in order to deter-
mine the most popular methods and materials used in teaching
reading.

Otto (41, pp. 113-114) reports on a study conducted in Wayne County, Michigan, where the initial teaching alphabet (i/t/a) was compared for effectiveness with the use of traditional orthography (t.o.). Teachers were given latitude to adapt their methods to the needs of the student, but within the general confines of these two basic approaches to the teaching of reading. Forty-eight adults completed the eight-week course which met for three hours a day, five days a week. Mean age of the adults was forty-four years, and median years of school completed was 5.5. Though the measurement criteria were not reported, Otto cites the major conclusions resulting from this study:

> The i/t/a approach facilitates the teaching of reading to illiterate and functionally illiterate adults. The t.o. approach tends to satisfy the needs of adults with a pre-instructional achievement level of fourth grade or better (41, p. 114).

The paucity of reading research constrasts with a wealth of status studies and empirical accounts which report interesting techniques and innovations which have been tried with varying degrees of success. As Ulmer points out,

> The teaching of reading is a field about which adult educators have amassed a reassuringly large amount of knowledge and experience on which the teacher can draw. . . .He has at his disposal a variety of approaches, techniques, teaching aids, and publications with which to embark this journey of literacy (59, p. 56).

Carter (9, pp. 28-29) has found that most reading approaches used with adults fall into one of the following categories:

(1) The global or analytic technique is one in which a written word is presented whose sound is familiar to the student. Meaning, as well as discrimination, is emphasized.

(2) The synthetic technique ascribes a sound to a letter, then a syllable. After these elements are mastered, the adult learns to put them together into words.

(3) The analytic-synthetic method is a combination of the first two methods. The various components of words and sentences are studied at the same time.

(4) The eclectic approach is a combination of the first three techniques.

(5) The linguistics approach requires a student to learn grapheme/phoneme relationships within words which compose word families. Later the student is given sentences which contain words that were learned in word families.

(6) The VAKT (visual-auditory-kinesthetic-tactile) approach uses a student's sensory modalities. The student looks at the word, hears it pronounced, then traces the word with his finger while saying the word.

(7) The language-experience approach is one in which the student dictates to the teacher from his own experience. Then, he reads his own words.

Heimstra (21, p. 8), reporting on the success of an eclectic approach in Nebraska ABE reading programs, notes that there is no single method which works best with all students.

Carter (9) attests to the success of the language-
experience approach as a method where the adults' own unique
life experiences provide beginning reading material.

A grade-level approach is advocated by Schiavone (53)
as a way to reach all adults regardless of where they fall
on the continuum of reading ability. Using this plan, adults
are divided into reading groups to correspond with grades one
through three, four through six, or seven through twelve.

Some other approaches reported in the literature include:
the Laubach method, a word-picture association approach
advocated by Cortright (10); the use of i/t/a in a remedial
reading program for adults as reported by Hanneberg (18);
the success of teacher-made materials in teaching adults
to read as reported by Harris (19); the feasibility of the
cooperative learning approach is explored by Mocker (36);
and Ahrendt (1) writes about materials effective in teaching
adults to read. Whitt and Cyzyck (60) reported that the
addition of a full-time ABE/reading specialist greatly aided
the success of a reading program in Baltimore County,
while Krail (30) described the success of the audio-lingual
approach and Kelly (26) advocated the use of games with adults.

These reports of techniques and innovations which have
been used in reading instruction for adults are representa-
tive of those which appear in the literature. While they
make interesting reading, it is possible to question their
validity. The preceding accounts, for the most part, are

not accompanied by research designs and statistical analysis.

Commenting on the inability of Adult Basic Education to meet

the needs of illiterate adults, Barnes has this to say,

> From the lack of basic and applied research in
> adult literacy education, and from the tremendous
> emphasis now being placed upon this aspect of edu-
> cation, it is apparent that without a great deal
> of further sound research this field will continue
> to be little more than the present conglomeration
> of hit or miss programs. Well designed research
> is badly needed in such related areas as sociology
> and anthropology so that teachers and administrators
> in the field may better understand the illiterate
> adult, his environment and his society. Research
> is needed,too, in areas such as learning, moti-
> vation, teaching methods and techniques and teacher
> training techniques (3, p. 221).

Effectiveness of Staff Development

Adult basic education program funding provides for in-

service professional development of staff members. Ideally,

the process of staff development equips teachers with the

appropriate knowledge, skills, and attitudes needed to teach

adults. However, very often in practice, teachers view staff

development as a useless infringement on their time (58).

Staff development, though often viewed as a nuisance, is

endured as a requisite for continued employment.

Mattran and Lyle (35) contend that this reluctance on

the part of teachers to accept staff-development offerings

is a result not only of inadequate assessment of the real

needs and desires of the teachers but also of the aimless

evolvement of staff-development activities that are designed

to match the often evanescent personnel.

Adult basic education is a young program with a shortage of qualified personnel (11). In spite of this shortage, there is a host of new persons now teaching in adult basic education. The rate of turnover is also very high. In one study, Peebles (48, p. 47) found that fully half of the teaching personnel in the programs he examined had less than three years experience.

The importance of staff development as a way to equip both new and experienced teachers with skills necessary to teach adults is undisputed in the literature. Pagano (44) has said that ongoing in-service preparation is of primary importance for teachers of adults and that time for staff development should be included within a program. Neff (39), Pagano (44), and Ulmer (58) all cite in-service as the most potent force available for meeting the needs of adult basic education teachers.

In an analysis of priorities in adult education, Grabowski makes the following observations concerning adult educator status:

> The following terms accurately describe the personnel in all adult-education agencies including the formal school system: most untrained for the work; transient; poorly paid; mostly inexperienced; mostly voluntary or part-time workers; not receiving any in-service training; out of contact with similar workers in other agencies; do not regard adult education as a career; will probably quit this year (15, p. 2).

According to the National Center for Educational Statistics (37), most ABE teachers and administrators have

participated in staff-development programs. In 1971-72, 72
percent of all ABE personnel received pre-service and/or
in-service preparation as reported by state directors (37).

Staff-development programs currently offered for teachers
follow no standardized plan. There are wide variations among
programs as to content, form, and time (15). Grabowski (15,
p. 11) says the concept of staff development encompasses a
broad range of activities. The National Task Force on Coop-
erative Extension In-Service Training offers this comprehen-
sive definition:

> In-service training is that phase of organized
> learning experience which is provided employees by
> the agency throughout the employment period. It is
> training directed towards developing understanding
> of job operations and standards, agency philosophy,
> policies, and procedures, as well as current tech-
> nical research findings. It includes induction
> training for new workers and on-the-job training
> in both subject matter and in educational methods
> for experienced personnel at all levels of the
> organization. It does not include courses taken
> as a part of a planned graduate study program
> leading to an advanced degree (38, p. 1).

A review of the literature reveals varying approaches
and models for planning and implementing programs of staff
development for teachers of adult reading.

Palmer (45) reports on a teacher preparation institute
sponsored by the University of Delaware. Some of the objec-
tives of the institute were

> to determine the specific reading and learning needs,
> characteristics, and problems of underachieving adults.

> to acquaint ABE teachers and paraprofessionals with an
> eclectic variety of reading, writing, and study tech-
> niques that can be used with underachieving adults.

The institute used lecture, observations, seminars, and work sessions. The institute was judged a success on the basis of participant-evaluations and a follow-up visit conducted by Palmer during the following year.

Brown and Dutton (8) report on a two-week summer institute held in 1972. Thirty participants attended from various regions in Tennessee. The participants were expected to conduct workshops among their colleagues using the information gained in the institute. The institute used reading professors to instruct participants in diagnosing and placing students; in understanding reading as related to word-attack and comprehension skills; and in selecting appropriate materials. The institute was judged successful as measured by participant evaluation.

Boggs (7) describes a strategy for using a television series titled "Basic Education: Teaching the Adult" as a resource for teacher education in a two-week workshop.

Boggs (7) also describes a process for individualization of the workshop process in which participants were asked to write learning objectives for themselves. These objectives were then used by a resource person as the basis for planning individual programs in the second week of the workshop. Participant evaluation listed positive and negative aspects, but no judgement was made as to the success or failure of the workshop.

The Appalachian Adult Education Center, charged with the responsibility of teacher preparation, held an institute in July and August of 1971 (2). The participants were taught by expert resource people through lecture, small-group discussion, programmed instruction, individual work and demonstration. Through follow-up activities and on-site visitations, the impact of the workshop on teacher preparation was judged to be substantial in a thirteen-state region.

Ramig and Dulin (50), reporting on a one-year reading-methods seminar for ABE teachers, concluded that such programs, while somewhat helpful as a vehicle for in-service preparation, are, at best, only stop-gap measures in equipping teachers with competencies needed to teach reading.

From the many in-service programs in reading for teachers of adults, Bessent identifies several models as representing the many techniques used in practice:

The Laboratory Approach Model. The laboratory approach . . . is an instructional system or procedure in which a group of learners is placed in a situation usually having some of the elements of reality simulation, in which the learners' behavior in dealing with the problem at hand procudes data that are organized and fed back to the group to form a basis for analysis and interpretation by the group (5, pp. 13-14).

The Classroom Experience Model. The classroom experience model of in-service education is a plan whereby the educational encounter is accomplished through simulation of direct experiences with students. This provides a means for guidance of teachers toward the implementation of curriculum innovation (5, p. 30).

The Teaching Demonstration Model. Teaching demonstration refers to a lesson drawn from the context of a real classroom situation, presented

by the teacher as she would normally present such a
lesson, with sufficient special preparation to facilitate
systematic observation and analysis of specific events
by interested observers (5, p. 42).

Self-Directed Learning Model. Self-directed learning
(SDL) is a structured plan for the systematic removal of
certain external controls usually placed on students.
SDL consists of a project framework for student selection
and evaluation of learning procedures, guidelines for
organizing a student-administered classroom, and a set
of carefully defined teacher behaviors (5, p. 14).

Using the preceding models as a framework, Grabowski (15,

p. 20) sought to identify "several exemplary programs for

training teachers of adults." However, his search results

were strikingly like those of Hoffman and Pagano (22, pp. 20-

21) who in 1971 reported that,

An exhaustive examination of the literature since 1965
. . . to assess what existed . . . revealed that ABE
staff training is fragmented and un-coordinated, that
at most there have been a series of partial programs
or unrelated program components which have been
implemented in isolation and then forgotten.

Most reports of ABE teacher preparation have been simply

accounts of what occurred based on teachers' and administrators'

perceptions. In most cases, they raise more questions than

they answer. As DeSanctis (11, p. 8) says, more research

data are needed to provide insight into what actually happens

in an ABE teacher-education process.

Synthesis

The research shows that more preparation of teachers of

adults is needed. Barnes and Hendrickson (4, p. 207) dis-

covered that "the greatest single need in adult education is

the establishment of sound, well-developed teacher-training programs."

Kavale and Lindsey (25, p. 368) cite the slow progress of ABE towards eradicating illiteracy, pointing out that little is known about the illiterate's reading process. The reason so little is known, say Kavale and Lindsey (25, pp. 369-370), is:

> . . . the hard data necessary to validate accounts of particular methods, materials and other pedagogical suggestions do not accompany . . . (reports of methods and materials). The (reports) for the most part, are rudimentary status studies without research designs or statistical treatment, and they generally express no more than the educated opinion of the author(s).

Eugene Johnson (24, p. 103) points out,

> The majority of teachers employed in the adult basic education program serve on a part-time basis; few of them have had training in the teaching of adults as opposed to the teaching of children or adolescents. The chief methodological advance of the 1970's is likely to be a continuation and widening of the efforts to retrain the teachers in tested methods for helping adults to learn. In time, research and experimentation with the new technology will undoubtedly affect the methodology of adult basic education, but any widespread change in present patterns in the near future seems unlikely.

Efficient reading skills are necessary for effective participation in society as it is today. In the Jeffersonian tradition, attempts must be made to reach those who comprise that segment of society for whom skill in reading is non-existent or painfully limited. This means that those charged with the responsibility of teaching reading to adults must somehow be equipped with the knowledge, skills and attitudes

necessary to help the individual who, for whatever reason, has reached adulthood without knowing how to read and who now wants to learn.

The research to date strongly indicates the need for further research toward the objective of developing critically needed teacher-preparation programs for adult educators.

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CHAPTER III

METHODS AND PROCEDURES

Subjects

This study compared responses of subjects in two groups using different staff development approaches with teachers of adult reading. A third group of teachers of adult reading received no staff development and their responses were utilized as a control.

Subjects receiving Treatment I consisted of 205 teachers of adults in the State of Texas. These 205 teachers were divided into five smaller groups. Each small group was composed of teachers who had completed the same module. These teachers were arbitrarily assigned to a particular module by the co-op director. Due to experimental mortality, there were 171 participants who completed both a pre- and post-test on the five module topics. These scores were used in testing Hypothesis I. Fourteen more, or a total of 181 participants, were found to have completed a post-test only. These scores were used to test Hypothesis II.

Subjects receiving Treatment II consisted of thirty-four adult education teachers in Texas. These teachers were selected as a comparison group after having been identified by the consultant for staff development with the Texas Education

Agency as being recipients of exemplary staff development in reading.

In this study there were also thirty-two subjects who received no staff development in reading. The subjects in this group were included in order to determine if the process of staff development is an effective means of increasing cognition in the area of reading.

A total of 271 subjects were used in this study. Demographic data (see Appendix E) collected throughout the study have been used to establish the equivalency of background among the participants.

The figures reported in Table I show the frequencies and percentages of subjects by gender.

TABLE I

FREQUENCIES AND PERCENTAGES OF
SUBJECTS BY GENDER

	Male		Female	
	f	%	f	%
Group I	56	27.32	149	72.68
Group II	5	17.24	24	82.76
Group III	14	43.75	18	56.25

The significance of the difference among the percentages for females in the three groups was tested against the hypothesis that no real difference exists among the percentages for the three groups. The null hypothesis of no significant difference between the percentage of females in Group I and

the percentage of females in Group II was tested by the
formula:

$$SE_D\% = \sqrt{PQ\ (1/N_1 + 1/N_2)}$$

(SE of the difference between two independent
or uncorrelated percentages)

Using this formula (2, pp. 135-138) a critical ratio
of 1.22 was obtained. In determining the significance of
the difference for this and subsequent tests, the Distri-
bution of $\underline{t}$ for Given Probability Levels in Roscoe (5, p. 429)
was consulted. Values for $\underline{t}$ and degrees of freedom are
summarized in Table II.

TABLE II

VALUES FOR $\underline{t}$ FOR THE SIGNIFICANCE OF THE
DIFFERENCE AMONG THREE GROUPS
ON PERCENTAGES OF FEMALES

	Group I	Group II	Group III
Group I Group II Group III	1.22*	2.24*	1.92*
	df=232	df=59	df=235

*Not significant

The critical ratio of 1.22 failed to reach the appro-
priate tabled value of 2.33 for the .01 level. Accordingly,
the null hypothesis was retained, and it was concluded that
there was no real difference between the percentage of females
in Group I and the percentage of females in Group II.

Testing the null hypothesis of no significant difference between the percentage of females in Group II and the percentage of females in Group III yielded a critical ratio of 2.24. In determining the significance of the difference, the critical ratio of 2.24 failed to reach the appropriate tabled value of 2.39 for the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between the percentage of females in Group II and the percentage of females in Group III.

Testing the null hypothesis of no significant difference between the percentage of females in Group I and the percentage of females in Group III yielded a critical ratio of 1.92. In determining the significance of the difference, the critical ratio of 1.92 failed to reach the appropriate tabled value of 2.33 at the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between the percentage of females in Group I and the percentage of females in Group III.

Though this study was not concerned with differences in performance on the post-test on the basis of gender, it is interesting to note that, in all three groups, the percentages of teachers who are female were greater than the percentages of teachers who are male. In adult basic education, as in both elementary and secondary education, the majority of teachers are female. In summary, on the basis of the tests

for significance of the difference between two percentages, it was concluded that no significant differences existed among the groups on the basis of gender.

The figures reported in Table III show the frequencies and percentages of subjects by ethnic background.

TABLE III

FREQUENCIES AND PERCENTAGES OF SUBJECTS
BY ETHNIC BACKGROUND

	Anglo-American		Mexican-American		Black-American		American-Indian	
	f	%	f	%	f	%	f	%
Group I	142	69.27	39	19.02	22	10.73	2	.98
Group II	22	75.86	7	24.14	0	0	0	0
Group III	16	50.00	16	50.00	0	0	0	0

The significance of the difference among the percentages for ethnic background of the three groups was tested against the hypothesis that no real difference exists in percentages among the three groups. The null hypothesis of no significant difference between the percentage of Anglo-Americans in Group I and the percentage of Anglo-Americans in Group II was tested by the formula:

$$SE_D\% = \sqrt{PQ \ (1/N_1 + 1/N_2)}$$

(SE of the difference between two independent
or uncorrelated percentages)

Values for $\underline{t}$ and degrees of freedom are summarized in Table IV.

TABLE IV

VALUES FOR t FOR THE SIGNIFICANCE OF THE
DIFFERENCE AMONG THREE GROUPS ON
PERCENTAGES OF ANGLO-AMERICANS

	Group I	Group II	Group III
Group I Group II Group III	.677*	2.11*	2.10*
	df=232	df=59	df=235

*Not significant

The critical value of .677 failed to reach the appropriate tabled value of 2.33 at the .01 level. Accordingly, the null hypothesis was retained and it was concluded that there was no real difference between the percentage of Anglo-Americans in Group I and the percentage of Anglo-Americans in Group II.

Testing the null hypothesis of no significant difference between Anglo-Americans in Group II and Anglo-Americans in Group III yielded a critical ratio of 2.11. In determining the significance of the difference, the critical ratio of 2.11 failed to reach the appropriate tabled value of 2.39 for the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between percentage of Anglo-Americans in Group II and percentage of Anglo-Americans in Group III.

Testing the null hypothesis of no significant difference between Anglo-Americans in Group I and Anglo-Americans in

Group III yielded a critical ratio of 2.10. In determining the significance of the difference, the critical ratio of 2.10 failed to reach the appropriate tabled value of 2.33 at the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between the percentage of Anglo-Americans in Group I and the percentage of Anglo-Americans in Group III.

In summary, on the basis of the tests for the significance of the difference between two percentages, it was concluded that no significant differences existed between the groups on the basis of ethnic background.

The figures reported in Table V show the frequencies and percentages of subjects by educational background.

TABLE V

FREQUENCIES AND PERCENTAGES OF SUBJECTS
BY EDUCATIONAL BACKGROUND

	Less than Bachelor's Degree		Bachelor's Degree		Master's Degree		Master's + Post Graduate Work	
	f	%	f	%	f	%	f	%
Group I	52	25.37	98	47.80	22	10.73	33	16.10
Group II	7	27.59	17	55.17	2	6.90	3	10.34
Group III	4	12.50	19	59.38	5	15.62	4	12.50

The significance of the difference among the percentages for educational background of the three groups was tested against the hypothesis that no real difference exists among the three groups. The null hypothesis of no significant

difference between the percentage of subjects in Group I
with a Bachelor's degree and the percentage of subjects in
Group II with a Bachelor's degree was tested by the formula:

$$SE_D\% = \sqrt{PQ\ (1/N_1 + 1/N_2)}$$

(SE of the difference between two independent
or uncorrelated percentages)

Values for $\underline{t}$ and degrees of freedom are summarized in
Table VI.

TABLE VI

VALUES FOR $\underline{t}$ FOR THE SIGNIFICANCE OF THE
DIFFERENCE AMONG THREE GROUPS ON
PERCENTAGES OF SUBJECTS WHO
HOLD A BACHELOR'S DEGREE

	Group I	Group II	Group III
Group I			1.23*
Group II	.752*		
Group III		.339*	
	df=232	df=59	df=235

*Not significant

The critical ratio of .752 failed to reach the appro-
priate tabled value of 2.33 at the .01 level. Accordingly,
the null hypothesis was retained and it was concluded that
there was no real difference between the percentage of sub-
jects in Group I who hold a Bachelor's degree and the per-
centage of subjects in Group II who hold a Bachelor's degree.

Testing the null hypothesis of no significant difference between the percentage of subjects in Group II who hold a Bachelor's degree and the percentage of subjects in Group III who hold a Bachelor's degree yielded a critical ratio of .339. In determining the significance of the difference, the critical ratio of .339 failed to reach the appropriate tabled value of 2.39 for the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between the percentage of subjects in Group II who hold a Bachelor's degree and the percentage of subjects in Group III who hold a Bachelor's degree.

Testing the null hypothesis of no significant difference between the percentage of subjects in Group I who hold a Bachelor's degree and the percentage of subjects in group III who hold a Bachelor's degree yielded a critical ratio of 1.23. In determining the significance of the difference, the critical ratio of 1.23 failed to reach the appropriate tabled value of 2.33 at the .01 level. Accordingly, the null hypothesis was retained, and it was concluded that there was no real difference between the percentage of subjects in Group I who hold a Bachelor's degree and the percentage of subjects in Group III who hold a Bachelor's degree.

In summary, on the basis of the tests for significance of the difference between two percentages, it was concluded that no significant differences existed among the groups on the basis of educational background.

The figures reported in Table VII show the frequencies and percentages of subjects by the portion of time spent teaching adult education.

TABLE VII

FREQUENCIES AND PERCENTAGES OF SUBJECTS
BY PORTION OF TIME SPENT TEACHING
ADULT EDUCATION

	Part time		Full time	
	f	%	f	%
Group I	143	69.76	62	30.24
Group II	26	89.66	3	10.34
Group III	28	87.50	4	12.50

The significance of the difference among the percentages for the three groups for portion of time spent teaching adult education was tested against the hypothesis that no real difference exists among the three groups. The null hypothesis of no significant difference between the percentage of subjects in Group I who teach part time and the percentage of subjects in Group II who teach part time was tested by the formula:

$$SE_D\% = \sqrt{PQ \ (1/N_1 + 1/N_2)}$$

(SE of the difference between two independent uncorrelated percentages)

Values for $\underline{t}$ and degrees of freedom are summarized in Table VIII.

TABLE VIII

VALUES FOR t FOR THE SIGNIFICANCE OF THE
DIFFERENCE AMONG THREE GROUPS ON
PERCENTAGES OF SUBJECTS WHO
TEACH PART-TIME

	Group I	Group II	Group III
Group I Group II Group III	2.26*	.234*	2.13*
	df=232	df=59	df=235

*Not significant

The critical value of 2.26 failed to reach the appropriate tabled value of 2.33 at the .01 level. Accordingly, the null hypothesis was retained and it was concluded that there was no real difference between the percentage of subjects in group I who teach part-time and the percentage of subjects in group II who teach part-time.

Testing the null hypothesis of no significant difference between the percentage of subjects in group II who teach part-time and the percentage of subjects in group III who teach part-time yielded a critical ratio of .234. In determining the significance of the difference, the critical ratio of .234 failed to reach the appropriate tabled value of 2.39 for the .01 level. Accordingly, the null hypothesis was retained.

Testing the null hypothesis of no significant difference between the percentage of subjects in group I who teach part-time and the percentage of subjects in group III who teach

part time yielded a critical ratio of 2.13, failing to reach
the tabled value of 2.33 at the .01 level. Accordingly, the
null hypothesis was retained and it was concluded that there
was no real difference between the percentage of subjects in
Group I who teach part time and the percentage of subjects
in Group III who teach part time.

In summary, on the basis of the tests for the signifi-
cance of the difference between two percentages, it was
concluded that no significant differences existed among the
three groups concerning the variable of portion of time spent
teaching adult education.

The data reported in Tables I through VIII show that a
majority of the adult-education teachers who participated in
this study were Anglo-American females possessing a Bachelor's
degree and working only part time as adult educators. Con-
sidering these data, the assumption was made that participants
in all three groups shared equivalent backgrounds.

Instrumentation

Professionals in the field of reading verify that, inso-
far as is known, no standardized test exists for measuring
cognitive gains acquired as a result of adult education reading
staff development. Therefore, an instrument was developed
in order to measure knowledge gain as a result of receiving
in-service preparation in reading (see Appendix C). The
test, though designed to be used specifically with the DART

modules, was judged by a panel of five reading experts to be of such a nature that its use is defensible in other adult reading staff-development programs. The panel consisted of three professors of reading and two doctoral candidates in reading at North Texas State University. All five judges stated that the content represented by citing a specific reading topic does not vary even if the method of presentation does vary.

A total test of 129 items divided into five subscales was developed to measure knowledge in the five reading-skill areas of Comprehension, Vocabulary, Motivation, Word Attack, and Diagnosis. The questions pertaining to each skill area, except Motivation, are multiple-choice questions. Motivation is measured using true and false questions. The original pool of questions included twenty-four items measuring knowledge in Comprehension, twenty-six items measuring knowledge in Vocabulary, twenty-eight measuring knowledge in Motivation, twenty-six measuring knowledge in Word Attack, and twenty-five items measuring knowledge in Diagnosis.

The test was administered to a class in secondary school curriculum methods and an index of item difficulty was computed for each item on the original test. This showed eighty-seven items falling within the .30-.70 range of difficulty. Division of the eighty-seven items into five subscales showed that fifteen of the test items measure knowledge in Comprehension, seventeen of the test items measure knowledge

in Vocabulary, sixteen of the test items measure knowledge in Motivation, twenty-two of the items measure knowledge in Word Attack, and seventeen measure knowledge in Diagnosis. These eighty-seven items comprise the instrument upon which validity and reliability data were computed.

The completed test instrument, containing five subscales, was content validated by a team of five reading specialists from North Texas State University. A four-step procedure was used.

First, the five team members were asked to read the five modules and to write down the key concepts from each module which should be included in the appropriate subscale (see Appendix F).

Second, those concepts specified by the team of experts were codified into four main categories for each of the five reading modules. Next, the experts were asked to rank order those concepts as to their relative importance to the specific module indicated (see Appendix G).

Third, a coefficient of concordance (4, pp. 334-340) was computed. This determined whether there was a significant measure of agreement among the judges, as a whole, concerning which concepts should be tested from each module and relative weights which should be accorded to them. A coefficient of concordance, also known as Kendall's W, can range from 0, indicating complete randomness in the allocation of rankings, to 1, indicating complete agreement among the judges (1, p.

338). The coefficients of concordance for each of the five reading topics are presented in Table IX.

TABLE IX

COEFFICIENTS OF CONCORDANCE FOR EACH ONE
OF THE FIVE READING TOPICS

Reading Subscale	Coefficient of Concordance (W)	F Ratios
Comprehension	.6240	7.11*
Vocabulary	.7440	11.38*
Motivation	.8400	21.00*
Word Attack	.7280	10.81*
Diagnosis	.6480	7.42*

* p < .05

Kendall's W is interpreted the same way as Spearman's rank order correlation coefficient (3, pp. 388-390) and is for use with ordinal data when there are more than two judges ranking data. As W increases from 0 to 1 a greater measure of agreement is indicated in the rankings of the judges. As can be seen in Table IX, the coefficients indicate some agreement among the five judges. In order to see if these values could arise by chance with anything but a remote probability, the values for W were tested for significance (4, pp. 339-340). In all five cases the calculated F ratios were significant at the .05 level; therefore, a fourth and final procedure was followed. The team was asked to judge whether the actual test items were properly weighted to reflect those key concepts from each one of the five reading skill areas (see

Appendix H). A tally of results showed unanimous agreement that the five subscales contained in the total test had content validity.

To obtain reliability data, the five subscales contained in the total test were administered to a class in school curriculum methods, a population assumed to have characteristics similar to the target population. The test-retest method (5, pp. 132-133) was administered to the same sample seven days apart. A reliability coefficient using Pearson's product-moment correlation was calculated for each subscale and for the total test. Data on the reliability coefficients are presented in Table X.

TABLE X

RELIABILITY COEFFICIENTS FOR FIVE READING
SUBSCALES AND TOTAL TEST

Reading Subscale	Reliability Coefficient	DF	P
Comprehension	.7694	19	.01
Vocabulary	.7192	19	.01
Motivation	.4516	19	.05
Word Attack	.6230	19	.01
Diagnosis	.6266	19	.01
Total	.8878	99	.01

As the figures show in Table X, all reliability coefficients, except Motivation, were significant at the .01 level. Motivation was significant at the .05 level. It should be noted that the test-retest method for determining the

reliability of the subscale measuring knowledge in Motivation
yielded a reliability coefficient of .45. A coefficient of
.45 means that only 20 percent of the variance in the second
test is accounted for by the variance in the first test. The
remaining 80 percent of the variance is due to error (1, p.
360). Since the area of Motivation is difficult to measure,
this subscale probably is of limited value for individual
diagnosis.

Procedures for Collecting Data

This study compared subjects using two staff-development
approaches designed for teachers of adult reading. A
third group of teachers of adult reading received no staff
development.

Subjects in Treatment I were teachers of adults who
received instruction using the DART method of staff develop-
ment in the subject of adult basic reading instruction. The
DART method utilizing reading modules provides a program of
teacher involvement in learning about very specific reading-
skill areas. Content is managed by behavioral objectives.
The modules are self-paced with no time limit set for com-
pletion. Time involved for a teacher to complete each set
of learning activities varies from one hour to approximately
two and one-half hours.

To obtain subjects used in Treatment I, a series of
fifteen workshops was held in various towns and cities in

Texas during the Fall of 1976 and the Spring of 1977. A total of 205 adult education teachers completed at least one of the five DART modules being evaluated for this study. In all cases, this was done in a group setting managed by the researcher, though the modules themselves were completed individually.

In order to avoid any accumulator effect that might result from experience with previous modules, only those data which represent a participant's first exposure to a particular module were used. In the case of an all-day workshop, where two modules were presented, only those data collected from the morning session were analyzed. Time requirements varied for each workshop from one and one-half hours to two and one-half hours. Attendance was mandatory, representing fulfillment of a job requirement, and an average of twenty-seven teachers were present at each workshop.

Five groups, each one signifying completion of a different DART module and ranging in number from thirty to forty-six, comprise the total DART treatment group. Participants took the appropriate pre-test at the beginning of the workshop, then were allowed to proceed, self-paced, through the module. Upon completion of the module, a post-test was given. Provision also was made to allow participants to give in-put in the form of a Likert-type scale. This form not only permitted easy codifying of information but also allowed for open-ended comments (see Appendix I).

The thirty-four subjects in Treatment II attended an all-day reading workshop designed to cover the same five reading skill areas as the DART modules, though using a lecture format. The DART pre- and post-tests were also used to measure gains in Treatment II because insofar as is known, no standardized test exists for measuring cognitive gains acquired as a result of adult educator staff development.

The instructor for Treatment II was considered knowledgeable in the area of reading. He holds a Bachelor of Science degree in Elementary Education, served for six years as an elementary school principal, and, before that time, served as an elementary teacher for four years. For the past six years he has held the title of Workshop Director for a large adult education co-op in West Texas.

The knowledge and skills imparted by the two treatments were the same; only the method of presentation differed. The subjects in Treatment II numbered thirty-four, and they received information primarily through the use of the lecture technique, supplemented with audio-visual aids. The instructor conducted the workshop in segments of approximately one hour and fifteen minutes each.

The first segment included a lecture on the elements of word recognition and a description of various word-attack strategies. The instructor discussed the importance of picture clues, context clues, phonetic analysis, and structural analysis, as strategies the adult beginning reader

must be taught. Several motivational techniques in the form of word games for word-attack practice were described.

The segment dealing with word-attack skills was followed by a video-tape tele-lesson from the Maryland Television Network on teaching reading comprehension. The tele-lesson covered the various factors that influence comprehension, the purposes that can affect the rate of reading, and the levels of comprehension that are involved in the reading act. The importance of critical-reading skills was covered, in depth, showing demonstrations of the various propaganda devices. Again, as in discussing word-attack skills, motivational techniques were discussed, such as engaging students in a controversial discussion to motivate them to read before forming opinions.

The workshop's afternoon activities included a segment on vocabulary building. The instructor distributed Xeroxed pages describing several vocabulary-building suggestions. The participants were asked to read and discuss these suggestions in small groups. These suggestions included becoming familiar with words of foreign origin, learning about prefixes, suffixes, understanding compound words, synonyms, antonyms, homonyms, and roots.

The subject of how to diagnose an adult student's reading difficulties was the final topic covered for the day. The instructor led a discussion concerning the diagnosis of

reading skills after which each participant was asked to list the three basic elements of an informal reading inventory.

During the last one-half hour of the day, the instructor handed out a collection of 216 pages of material dealing with teaching reading to children and adults. Instructions were given to the teachers to read the material at a later date as free time allowed.

The final twenty minutes were alloted for the administration of the DART post-test.

A third group consisting of thirty-two subjects received only the DART post-test. The subjects in this group were included in order to provide a control for the internal validity factors of history and maturation and to determine if the process of staff development is an effective means of increasing cognition in the area of reading.

Statistical Treatment of the Data

The statistical steps necessary to test Hypothesis I required an analysis of covariance, using the DART pre-test as the covariate.

The statistical steps necessary to test Hypothesis II required an analysis of variance to be computed for each of the three groups. This was followed by the Scheffé procedure for testing any and all possible comparisons between means.

Summary

This study compared subjects in two groups using two staff-development approaches with teachers of adult reading. A third group received no treatment.

The 205 subjects in Treatment I were all teachers of adult reading. They received instruction using the DART method of providing staff-development education in adult basic reading instruction. The DART method provides a program of teacher involvement in learning about very specific reading-skill areas using content managed by behavioral objectives. The DART Treatment was presented in a workshop setting with participants allowed to proceed self paced through the module.

The thirty-four subjects in Treatment II were also teachers of adult reading. They received a one-day staff-development workshop in the same five reading-skill areas as did subjects in Treatment I. The method of presentation of knowledge was essentially one of lecture supplemented with audio-visual aids. The subjects in Treatment II received the DART pre- and post-tests.

The pre-test consisted of eighty-seven items having five subscales. The test, though developed to be used specifically with the DART modules, was judged by a panel of reading experts to be of such a nature that it may be used in other adult reading staff development programs.

The test instrument was content validated by a team of five reading specialists from North Texas State University.

Reliability was established by the test-retest method. A reliability coefficient using Pearson's product moment correlation was calculated for each subscale and the total test. Four reliability coefficients were significant at the .01 level. Motivation was significant at the .05 level.

Two groups using two different staff-development techniques were compared. A third group received no staff development. The criteria for determining the effectiveness of the respective treatments were the post-test scores on the appropriate subscale of the DART test instrument.

Data were analyzed using both analysis of covariance and analysis of variance followed by the Scheffé procedure for testing multiple comparisons.

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CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

This chapter presents an analysis of the data evaluating
the effectiveness of two approaches to teacher preparation in
the area of adult basic reading instruction. Subjects given
Treatment I, the DART staff-development strategy, received
focused instruction in five reading-skill areas. This approach
facilitates teacher involvement in learning about very specific
reading-skill areas. Subjects given Treatment II, the non-
focused staff-development strategy, received instruction in
the five reading-skill areas by lectures of a general nature.
Subjects in a third group received no treatment.

Subjects given Treatment I were divided into five smaller
groups according to assigned modules covering the five reading-
skill areas. Subjects given Treatment II were taught the same
five reading skills by a lecture method. Hypothesis I pre-
dicted that teachers in Group I (Treatment I) would achieve
significantly higher adjusted post-test means in cognitive
skills than those in Group II (Treatment II). Post-test means
for each of the two treatment groups on each of the five
reading areas were calculated and adjusted for initial dif-
ferences on the basis of pre-test scores through analysis of

covariance. This statistical treatment was used to test significance of difference for adjusted post-test means. All hypotheses were tested in the null form, F ratios were calculated, and probability levels were reported.

Presentation of Data

Presentation of Hypothesis Ia

Analysis of covariance permitted the testing of Hypothesis I for significant differences between the two groups with respect to each of the five reading-skill areas. In Hypothesis Ia, it was predicted that teachers in Group I would achieve significantly higher adjusted post-test means in cognitive skills for Comprehension than those in Group II.

The highest score possible on the Comprehension subscale was 15.00. The pre-test, post-test, and adjusted mean scores for the two treatment groups for research Hypothesis Ia are shown in Table XI.

TABLE XI

SUMMARY OF THE DATA RELATED TO THE MEAN
SCORES ON COMPREHENSION

Group	N	Pre-Test Mean Score	Post-Test Mean Score	Pre-Test S.D.	Post-Test S.D.	Adjusted Mean
Treatment I	30	9.43	12.57	2.70	2.08	12.36
Treatment II	34	8.82	9.38	2.74	3.27	9.56

The adjusted mean for data yielded from analysis of covariance is presented in Table XII.

TABLE XII

SUMMARY OF ANALYSIS OF COVARIANCE
FOR COMPREHENSION

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	P
Difference	1	123.70	123.70	25.24	0.0001
Within	61	299.01	4.90		
Total	62	422.71			

An F ratio of 25.24 was obtained, a value which is highly significant beyond the .0001 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis Ib

Teachers in Group I will achieve significantly higher adjusted post-test means in cognitive skills for Vocabulary development than those in Group II.

The highest score possible on the Vocabulary subscale was 17.00. The pre-test, post-test, and adjusted mean scores for the two treatment groups are shown in Table XIII. An examination of the figures in Table XIII shows that those teachers in Group I obtained a pre-test mean of 7.77, a post-test mean of 12.53 and an adjusted mean of 11.98. Teachers in Group II obtained a pre-test score of 9.65. However, those

in Group II obtained a post-test score of 9.68, a gain of only .03. Those in Group II obtained an adjusted mean of 9.32, which was 2.66 points lower than the adjusted mean for those in Group I.

TABLE XIII

SUMMARY OF THE DATA RELATED TO MEAN SCORES
ON VOCABULARY DEVELOPMENT

Group N	Pre-Test Mean Score	Post-Test Mean Score	Pre-Test S.D.	Post-Test S.D.	Adjusted Mean
Treatment I 34	7.77	11.62	3.54	2.92	11.98
Treatment II 34	9.65	9.68	3.37	2.60	9.32

The adjusted mean for data yielded from analysis of covariance is presented in Table XIV.

TABLE XIV

SUMMARY OF ANALYSIS OF COVARIANCE
FOR VOCABULARY DEVELOPMENT

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	P
Difference	1	111.45	111.45	18.50	0.0001
Within	65	391.49	6.02		
Total	66	502.93			

An F ratio of 18.50 was obtained, a value which is significant at the .0001 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis Ic

Teachers in Group I will achieve significantly higher adjusted post-test means in cognitive skills for Motivation than those in Group II. The highest score possible on this subscale was 16.00. The pre-test, post-test, and adjusted mean scores for the two treatment groups are shown in Table XV.

TABLE XV

SUMMARY OF THE DATA RELATED TO MEAN SCORES
ON MOTIVATION

Group	N	Pre-Test Mean Score	Post-Test Mean Score	Pre-Test S.D.	Post-Test S.D.	Adjusted Mean
Treatment I	36	9.22	12.53	1.64	1.58	12.67
Treatment II	34	9.88	9.82	2.14	2.13	9.68

The adjusted mean for data yielded from analysis of covariance is presented in Table XVI.

TABLE XVI

SUMMARY OF ANALYSIS OF COVARIANCE
FOR MOTIVATION

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	P
Difference	1	151.27	151.27	53.07	0.0001
Within	67	190.99	2.85		
Total	68	342.26			

An F ratio of 53.07 was obtained, a value which is highly significant beyond the .0001 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

<u>Presentation</u> <u>of</u> <u>Hypothesis</u> <u>Id</u>

Teachers in Group I will achieve significantly higher adjusted post-test means in cognitive skills for Word Attack than those in Group II. The highest score possible on this subscale was 22.00. The pre-test, post-test and adjusted mean scores for the treatment groups are shown in Table XVII.

TABLE XVII

SUMMARY OF DATA RELATED TO MEAN SCORES
ON WORD-ATTACK SKILLS

Group	N	Pre-Test Mean Score	Post-Test Mean Score	Pre-Test S.D.	Post-Test S.D.	Adjusted Mean
Treatment I	41	10.63	17.34	3.08	3.46	17.14
Treatment II	34	9.91	11.35	3.48	3.73	11.60

The adjusted mean for data yielded from analysis of covariance is presented in Table XVIII.

TABLE XVIII

SUMMARY OF ANALYSIS OF COVARIANCE
FOR WORD ATTACK

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	P
Difference	1	564.39	564.39	62.47	0.0001
Within	72	650.47	9.0344		
Total	73	1214.87			

An F ratio of 62.47 was obtained, a value which is highly significant beyond the .0001 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis Ie

Teachers in group I will achieve significantly higher adjusted post-test means in cognitive skills for Diagnosis than those in group II. The highest score possible on this subscale was 17.00. The pre-test, post-test and adjusted mean scores for the two treatment groups are shown in Table XIX.

TABLE XIX

SUMMARY OF DATA RELATED TO MEAN SCORES
ON DIAGNOSIS

Group N	Pre-Test Mean Score	Post-Test Mean Score	Pre-Test S.D.	Post-Test S.D.	Adjusted Mean
Treatment I 30	10.53	13.00	2.60	2.43	12.78
Treatment II 34	9.97	10.47	3.09	3.59	10.46

The adjusted mean for data yielded from analysis of covariance is presented in Table XX.

TABLE XX

SUMMARY OF ANALYSIS OF COVARIANCE
FOR DIAGNOSIS

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	P
Difference	1	72.57	72.57	11.18	0.0014
Within	61	396.07	7.49		
Total	62	468.64			

An F ratio of 11.18 was obtained, a value which is sig-
nificant at the .0014 level; therefore, the null hypothesis
was rejected and the research hypothesis was accepted.

Presentation of Hypothesis IIa

In Hypothesis IIa it was predicted that teachers in
Group I (Treatment I) would achieve significantly higher
post-test means in cognitive skills for Comprehension than
those in Group III (No Treatment). Through one-way analysis
of variance it was possible to test this hypothesis for sig-
nificant differences in performances on the post-test among
all three groups.

For each of the five reading-skill areas, the post-test
means for Groups I, II, and III were compared for significant
differences. Presented in Table XXI are data pertaining to
the analysis of variance relative to Hypothesis IIa.

TABLE XXI

ANALYSIS OF VARIANCE OF GROUPS I, II, AND III
ON COMPREHENSION

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F Ratio	P
Between	212.91	2	106.46	13.64	<0.0001
Within	772.90	99	7.81		
Total	985.81	101			

As can be seen, an F ratio of 13.64 was obtained, a value
which is highly significant beyond the .0001 level. To

determine the source of this significant difference, the Scheffé procedure for testing any and all possible comparisons between means was used.

Presented in Table XXII are data on post-test means for all three groups, including the two groups which are relative to Hypothesis IIa. Cell sizes which differ from those used in reporting the results of testing Hypothesis I are due to experimental mortality.

TABLE XXII

POST-TEST MEANS FOR GROUPS I, II, AND III
ON COMPREHENSION

	N	Mean	S.D.
Group I	36	12.17	2.80
Group II	34	9.38	3.27
Group III	32	8.94	2.17

Presented in Table XXIII are data on the source of the significant difference.

TABLE XXIII

SCHEFFE'S TEST FOR GROUPS I, II, AND III
ON COMPREHENSION

	Group I	Group II
Group I		
Group II	8.68	
Group III	11.31	.21

The figures in Table XXIII compare for significant differences the means for Groups I and II, groups I and III, and Groups II and III. The F ratio obtained by the Scheffé Method was 11.31 comparing Groups I and III. This value was highly significant beyond the .01 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis IIb

In Hypothesis IIb, it was predicted that teachers in Group I (Treatment I) would achieve significantly higher post-test means in cognitive skills for Vocabulary development than those in Group III (No Treatment). Through one-way analysis of variance it was possible to test this hypothesis for significant differences in performance on the post-test among all three groups.

Presented in Table XXIV are data pertaining to the analysis of variance relative to Hypothesis IIb.

TABLE XXIV

ANALYSIS OF VARIANCE OF GROUPS I, II, AND III
ON VOCABULARY DEVELOPMENT

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F Ratio	P
Between	96.76	2.	48.38	6.74	.0018
Within	711.08	99.	7.18		
Total	807.84	101.			

As can be seen, an F ratio of 6.74 was obtained, a value which is significant at the .0018 level. To determine the source of this significant difference, the Scheffé procedure for testing any and all possible comparisons between means was used.

Presented in Table XXV are data on post-test means for all three groups, including the two groups which are relative to Hypothesis IIb.

TABLE XXV

POST-TEST MEANS FOR GROUPS I, II, AND III
ON VOCABULARY DEVELOPMENT

	N	Mean	S.D.
Group I	36	11.36	3.16
Group II	34	9.68	2.60
Group III	32	9.00	2.11

The figures in Table XXV show means and standard deviations for the three groups. As can be seen, the mean of Group I, those who received the DART treatment, was larger than that of Group III (No Treatment) by 2.36.

Presented in Table XXVI are data on the source of the significant difference. An examination of Table XXVI shows that Group I, the DART treatment group, scored significantly higher post-test means on Vocabulary development than did Group III, the No Treatment group.

TABLE XXVI

SCHEFFE'S F TEST FOR GROUPS I, II, AND III
ON VOCABULARY DEVELOPMENT

	Group I	Group II
Group I		
Group II	3.23	
Group III	6.27	.52

The figures in Table XXVI compare for significant differences the means for Groups I and II, Groups I and II, and Groups II and III. The F ratio obtained by the Scheffé method was 6.27 comparing Groups I and III. This value was significant at the .01 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis IIc

In Hypothesis IIc, it was predicted that teachers in Group I (Treatment I) would achieve significantly higher post-test means in cognitive skills for Motivation than those in Group III (No Treatment). Through one-way analysis of variance it was possible to test this hypothesis for significant differences in performances on the post-test for all three groups.

Presented in Table XXVII are data pertaining to the analysis of variance relative to Hypothesis IIc.

TABLE XXVII

ANALYSIS OF VARIANCE OF GROUPS I, II, AND III
ON MOTIVATION

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F Ratio	P
Between	279.40	2.	139.70	37.56	<0.0001
Within	372.02	100.	3.72		
Total	651.42	102.			

As can be seen, an F ratio of 37.56 was obtained, a value
which is highly significant beyond the .0001 level. To
determine the source of this significant difference, the
Scheffé procedure for testing any and all possible comparisons
between means was used.

Presented in Table XXVIII are data on post-test means
for all three groups, including the two groups which are rel-
ative to Hypothesis IIc.

TABLE XXVIII

POST-TEST MEANS FOR GROUPS I, II, AND III
ON MOTIVATION

	N	Mean	S.D.
Group I	37	12.43	1.66
Group II	34	9.82	2.13
Group III	32	8.50	2.00

The figures in Table XXVIII show means and standard
deviations for the three groups. As can be seen, the mean of
Group I, those who received the DART treatment,was larger
than that of Group III by 3.93.

Presented in Table XXIX are data on the source of the significant difference.

TABLE XXIX

SCHEFFE'S F TEST FOR GROUPS I, II, AND III
ON MOTIVATION

	Group I	Group II
Group I		
Group II	16.21	
Group III	35.66	3.88

The figures in Table XXIX compare for significant differences the means for Groups I and II, Groups I and III and Groups II and III. The F ratio obtained by the Scheffé method was 35.66 comparing Groups I and III. This value was highly significant beyond the .01 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis IId

In Hypothesis IId, it was predicted that teachers in Group I (Treatment I) would achieve significantly higher post-test means in cognitive skills for Word Attack than those in Group III (No Treatment). Through one-way analysis of variance it was possible to test this hypothesis for significant differences in performances on the post-test for all three groups.

Presented in Table XXX are data pertaining to the analysis of variance relative to Hypothesis IId.

TABLE XXX

ANALYSIS OF VARIANCE OF GROUPS I, II, AND III
ON WORD ATTACK

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F Ratio	P
Between	812.86	2.	406.43	31.09	<0.0001
Within	1424.86	109.	13.07		
Total	2237.72	111.			

As can be seen, an F ratio of 31.09 was obtained, a value which is highly significant beyond the .0001 level. To determine the source of this significant difference, the Scheffé procedure for testing any and all possible comparisons between means was used.

Presented in Table XXXI are data on post-test means for all three groups, including the two groups which are relative to Hypothesis IId.

TABLE XXXI

POST-TEST MEANS FOR GROUPS I, II, AND III
ON WORD ATTACK

	N	Mean	S.D.
Group I	46	16.87	3.89
Group II	34	11.35	3.73
Group III	32	11.43	3.04

The figures in Table XXXI show means and standard deviations for the three groups. As can be seen, the mean of Group I, those who received the DART treatment, was larger than that of Group III by 5.44.

Presented in Table XXXII are data on the source of the significant difference.

TABLE XXXII

SCHEFFE'S F TEST FOR GROUPS I, II, AND III
ON WORD ATTACK

	Group I	Group II
Group I		
Group II	22.76	
Group III	21.30	.01

The figures in Table XXXII compare for significant differences the means for Groups I and II, roups I and III and Groups II and III. The F ratio obtained by the Scheffe' method was 21.30 comparing Groups I and III. This value was highly significant beyond the .01 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Presentation of Hypothesis IIe

In Hypothesis IIe, it was predicted that teachers in Group I (Treatment I) would achieve significantly higher post-test means in cognitive skills for Diagnosis than those in Group III (No Treatment). Through one-way analysis of variance, it was possible to test this Hypothesis for significant differences in performances on the post-test for all three groups.

Presented in Table XXXIII are data pertaining to the analysis of variance relative to Hypothesis IIe.

TABLE XXXIII

ANALYSIS OF VARIANCE OF GROUPS I, II, AND III
ON DIAGNOSIS

Source	Sum of Squares	Degrees of Freedom	Variance Estimate	F Ratio	P
Between	115.05	2.	57.53	5.91	.0038
Within	904.91	93.	9.73		
Total	1019.96	95.			

As can be seen, an F ratio of 5.91 was obtained, a value which is significant at the .0038 level. To determine the source of this significant difference, the Scheffé procedure for testing any and all possible comparisons between means was used.

Presented in Table XXXIV are data on post-test means for all three groups, including the two groups which are relative to Hypothesis IIe.

TABLE XXXIV

POST-TEST MEANS FOR GROUPS I, II, AND III
ON DIAGNOSIS

	N	Mean	S.D.
Group I	30	12.97	2.43
Group II	34	10.47	3.59
Group III	32	10.78	3.16

The figures in Table XXXIV show means and standard deviations for the three groups. As can be seen, the mean of

Group I, those who received the DART Treatment, was larger than that of Group III (No Treatment) by 2.19.

Presented in Table XXXV are data on the source of the significant difference.

TABLE XXXV

SCHEFFE'S F TEST FOR GROUPS I, II, AND III
ON DIAGNOSIS

	Group I	Group II
Group I		
Group II	5.10	
Group III	3.80	.08

The figures in Table XXXV compare for significant differences the means for Groups I and II, Groups I and III and Groups II and III. The F ratio obtained by the Scheffé method was 3.80 comparing Groups I and III. This value was significant at the .05 level; therefore, the null hypothesis was rejected and the research hypothesis was accepted.

Discussion of the Findings

Research Hypotheses Ia, Ic and Id were all accepted as the F ratios obtained were highly significant beyond the .0001 level. Research Hypothesis Ib was accepted at the .0001 level, and Research Hypothesis Ie was accepted at the .001 level. The acceptance of all five sections of Research Hypothesis I indicates that the DART-focused method used in Treatment I to provide adult reading staff development did,

in fact, enhance the mastery of the five reading-skill areas over the more traditional non-focused staff-development strategy used in Treatment II.

Research Hypotheses IIc and IId were both accepted as the F ratios obtained were highly significant beyond the .0001 level. Research Hypothesis IIa was accepted at the .001 level. Research Hypothesis IIb was accepted at the .002 level, and Research Hypothesis IIe was accepted at the .0038 level. For each of the five sections of Hypothesis II, all three groups were compared for significant differences among means using Scheffé's F test. Research Hypotheses IIa, IIb, IIc, and IId were significant at the .01 level favoring Group I over Group III. Research Hypothesis IIe was significant at the .05 level favoring Group I over Group III. The acceptance of all five sections of Research Hypothesis II indicates that the process of staff development can, in fact, be an effective means of increasing cognition in the area of reading.

Summary

The purpose of this chapter was to present, analyze, and discuss the data obtained for this study. The hypotheses were presented and the data were analyzed to determine acceptance or rejection of the research hypotheses. The F ratios involved in Hypothesis I were reported, and all hypotheses were accepted at the .001 level or beyond. The F ratios involved in Hypothesis II were reported, and all hypotheses

were accepted at the .0038 level or beyond. Scheffé's F
test comparing means favored Group I over Group III in all
five instances at the .05 level or beyond.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

Introduction

This study evaluated the effectiveness of two methods of staff development for teachers of adult reading. The first method was a new one, known as Developing Adult Reading in Texas (DART), which used modules to focus on five specific skills of the total reading process. These skills were those identified by reading experts and teachers as those most needed in teaching reading to adults. The second method was defined as a non-focused approach where information concerning the five different reading skills was presented to teachers using a lecture format. In addition, a non-treatment group was also included in the study.

Purpose of the Study

The purpose of this study was to determine if the DART modules were effective in bringing about cognitive changes in teachers of adult reading. The study focused on the following specific objectives:

(1) To ascertain the effectiveness of each one of five DART modules developed as a result of findings in a needs

assessment of teachers of adults and other professionals in the area of reading.

(2) To provide a basis for in-service staff development for teachers of adult reading.

(3) To make recommendations regarding teacher preparation and selection for ABE programs.

Hypotheses

To carry out the purpose of this study two hypotheses were tested for each of the five reading-skill areas. Group I was identified as those who completed one of the five assigned DART modules, Group II as those who received a non-focused adult reading staff-development program and Group III as those who received no staff development in adult reading. Hypothesis I for each reading skill area was as follows:

H_1: Teachers in Group I will achieve significantly higher adjusted post-test means in cognitive skills than will those in Group II:

H_1a. Post-test for Comprehension

H_1b. post-test for Vocabulary Development

H_1c. post-test for Motivation

H_1d. post-test for Word-Attack Skills

H_1e. post-test for Diagnosis.

Hypothesis II for each of the five reading-skill areas was as follows:

H : Teachers in Group I will show significantly higher adjusted post-test means in cognitive skills than will those in Group III:

H_2a. post-test for Comprehension

H_2b. post-test for Vocabulary Development

H_2c. post-test for Motivation

H_2d. post-test for Word-Attack Skills

H_2e. post-test for Diagnosis.

Design of the Research

Description of the Subjects. This study evaluated subjects in two groups using two staff-development approaches with teachers of adult reading. A third group received no treatment.

The 205 subjects in Treatment I were all teachers of adult reading in Texas. They received instruction using the DART method of providing staff-development education in adult basic reading instruction. The DART method provides a program of teacher involvement in learning about very specific reading-skill areas using content managed by behavioral objectives. The DART Treatment was presented in a workshop setting with participants allowed to proceed self-paced through the module.

The thirty-four subjects in Treatment II were also teachers of adult reading. They received instruction in a one-day staff-development workshop covering the same five

reading-skill areas as did subjects in Treatment I. The
method of presentation of knowledge was essentially one of
lecture, supplemented with audio-visual aids. The subjects in
Treatment II received the DART pre- and post-tests.

The thirty-two subjects in Group III were also teachers
of adult reading. They received only the DART post-test.

Instrumentation. Professionals in the field of reading
verify that, insofar as is known, no standardized test exists
for measuring cognitive gains acquired as a result of adult
education reading staff development. Therefore, an instru-
ment was developed in order to measure knowledge gain as a
result of receiving in-service preparation in reading. The
test, containing eighty-seven items divided into five sub-
scales, was designed to be used with DART and other adult
reading staff-development programs.

The test was content validated by a team of five reading
specialists from North Texas State University.

Reliability was established by the test-retest method.
A reliability coefficient using Pearson's Product Moment
Correlation was calculated for each subscale and the total
test. Four reliability coefficients were significant at the
.01 level. Motivation was significant at the .05 level.

Procedures for Collecting the Data. Subjects in Treat-
ment I were teachers of adults who received instruction using
the DART method of staff development in the subject of adult

basic reading instruction. To obtain subjects used in Treatment I, a series of fifteen workshops was held in eleven Texas towns and cities during the Fall of 1976 and the Spring of 1977.

Five groups, each one signifying completion of a different DART module and ranging in number from thirty to forty-six, comprise the total DART Treatment Group I. Participants took the appropriate pre-test at the beginning of the workshop, then were allowed to proceed, self-paced, through the module. Upon completion of the module a post-test was given.

Subjects in Treatment II attended an all-day reading workshop designed to cover the same five reading-skill areas as the DART modules, though using a lecture format for presentation. The DART pre- and post-tests were used to measure gains in Treatment II because, insofar as is known, no standardized test exists for measuring cognitive gains as a result of adult educator staff development.

Thirty-two subjects in a third group received only the DART post-test. Group III was included as a non-treatment group in order to provide a control for the internal validity factors of history and maturation as well as to determine if the process of staff development has an effect on cognition.

Statistical Treatment of the Data. The five subsections of Hypothesis I were tested by analysis of covariance with the pre-test scores for Groups I and II serving as covariates.

F values were reported and were used to determine the significance of one approach versus the other approach. Tables in Roscoe's statistics book were consulted (1).

The five subsections of Hypothesis II were tested by one-way analysis of variance. F values were reported and were used to determine significance. This was followed by the Scheffé procedure for testing any and all possible comparisons between means.

Presentation and Analysis of Data

Hypothesis Ia. Teachers in Group I (Treatment I) will achieve significantly higher adjusted post-test means in cognitive skills for Comprehension than those in Group II (Treatment II). The F value of 25.24 was highly significant beyond the .0001 level, favoring Treatment I; therefore, the research hypothesis was accepted.

Hypothesis Ib. Teachers in Group I (Treatment I) will achieve significantly higher adjusted post-test means in cognitive skills for Vocabulary Development than those in Group II (Treatment II). The F value of 18.50 was significant at the .0001 level, favoring Treatment I; therefore, the research hypothesis was accepted.

Hypothesis Ic. Teachers in Group I (Treatment I) will achieve significantly higher adjusted post-test means in cognitive skills for Motivation than those in Group II (Treatment II). The F value of 53.07 was highly significant

at the .0001 level, favoring Treatment I; therefore, the research hypothesis was accepted.

Hypothesis Id. Teachers in Group I (Treatment I) will achieve significantly higher adjusted post-test means in cognitive skills for Word Attack than those in Group II (Treatment II). The F value of 62.47 was highly significant beyond the .0001 level, favoring Treatment I; therefore, the research hypothesis was accepted.

Hypothesis Ie. Teachers in Group I (Treatment I) will achieve significantly higher adjusted post-test means in cognitive skills for Diagnosis than those in Group II (Treatment II). The F value of 11.18 was significant at the .001 level, favoring Treatment I; therefore, the research hypothesis was accepted.

Hypothesis IIa. Teachers in Group I (Treatment I) will achieve significantly higher post-test means in cognitive skills for Comprehension than those in Group III (No Treatment). The F value of 13.64 was highly significant beyond the .0001 level showing differences among means. Scheffé's F value of 11.31, favoring Group I over Group III was highly significant beyond the .01 level; therefore, Hypothesis IIa was accepted.

Hypothesis IIb. Teachers in Group I (Treatment I) will achieve significantly higher post-test means in cognitive skills for Vocabulary Development than those in Group III (No Treatment). The F value of 6.74 was

significant at the .001 level showing differences among means. Scheffé's F value of 6.27, favoring Group I over Group III was highly significant beyond the .01 level; therefore, Hypothesis IIb was accepted.

Hypothesis IIc. Teachers in Group I (Treatment I) will achieve significantly higher post-test means in cognitive skills for Motivation than those in Group III (No Treatment). The F value of 37.55 was highly significant beyond the .0001 level showing differences among means. Scheffé's F value of 35.66, favoring Group I over Group III was highly significant beyond the .01 level; therefore, Hypothesis IIc was accepted.

Hypothesis IId. Teachers in Group I (Treatment I) will achieve significantly higher post-test means in cognitive skills for Word Attack than those in Group III (No Treatment). The F value of 31.09 was highly significant at the .0001 level showing differences among means. Scheffé's F value of 21.30, favoring Group I over Group III was highly significant beyond the .01 level; therefore Hypothesis IId was accepted.

Hypothesis IIe. Teachers in Group I (Treatment I) will achieve significantly higher post-test means in cognitive skills for Diagnosis than those in Group III (No Treatment). The F value of 5.91 was significant at the .0038 level showing differences among means. Scheffé's F value of 3.80,

favoring Group I over Group III was significant at the .05 level; therefore, research Hypothesis IIe was accepted.

Conclusion

Based on the data presented in this study and within the limitations of this study, the following conclusion has been formulated:

From a cognitive standpoint, adult reading in-service preparation which focuses on specific skills has more viability for improving instruction than in-service preparation which deals with the subject in a more general manner.

Recommendations for Further Research

1. It is recommended that a replication of this study be conducted in which variables that might differentially affect post-test scores are held constant. Such variables would include gender, race, educational background and amount of experience in teaching adult education. The effect of such variables could then be partialled-out so that the impact of the experimental control would be more clearly the result of the experimental treatment.

2. It is recommended that more than one workshop leader be used for Group II in order to negate any possible positive or negative instructor factors.

3. It is recommended that teachers who received in-service staff development using the DART method be tested again for retention after a period of nine months.

4. It is recommended that follow-up studies be conducted to measure reading gains of a group of students whose teachers have received in-service staff development using the DART method of teacher preparation.

Implications of the Study

As a result of this study the following are suggested:

1. It appears that in-service education programs which focus on specific topics have potential for more efficient utilization of the varying time frames designated for adult educator staff development.

2. Since teachers in the field identified their needs in the area of adult reading instruction as being the same ones identified by reading experts as those most essential to a total reading program for adults, it may be implied that in-service preparation in those areas would be of greatest benefit to teachers of adult reading.

3. Focusing for a short period of time on a specific skill of the total reading process appears to be an effective way to learn. Therefore, it may be implied that this same kind of information-delivery system could be effective when applied to subjects other than adult reading.

CHAPTER BIBLIOGRAPHY

Roscoe, John T., <u>Fundamentals of Statistics for the Behavioral Sciences</u>, second edition, New York, Holt, Rinehart, and Winston, Inc. 1975.

APPENDIX A

NEEDS ASSESSMENT

SEX: _____ M _____ F   AGE:

_____ 20-25   _____ 41-45
_____ 26-30   _____ 56-50
_____ 31-35   _____ 50-over

TEA Geographic location where you are now teaching.

_____ Denton Area   _____ Corpus Christi Area
_____ Big Spring Area   _____ Austin Area
_____ Edinburg Area   _____ San Antonio Area
_____ Houston

Academic Preparation.

_____ less than Bachelor's Degree   _____ Master's Degree
_____ Bachelor's Degree   _____ Master's Degree and
_____ Bachelor's Degree and   post-graduate work
      some graduate work

Years of experience in teaching adult education.
(less than 1 year's experience shall be entered as 1 year)

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   _____ 9-over

Prior experience in teaching.

_____ No previous experience.

_____ Elementary

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   _____ 9-over

_____ Junior High or Middle School

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   _____ 9-over

_____ Senior High School

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   _____ 9-over

_____ College or University

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   _____ 9-over

_____ Other Institutions (Please Specify) _____

_____ 1-2 years   _____ 6-8 years
_____ 3-5 years   99   _____ 9-over

In what Area(s) do you hold a degree?

_____ Elementary Education   _____ Reading Education
_____ Secondary Education   _____ Vocational Education
_____ Higher Education   _____ Adult Continuing Education
_____ Counselor Education   _____ Other _____

Number of completed academic course hours specifically in
    adult continuing education.

_____ None   _____ 9-11
_____ 3-5   _____ 12-over
_____ 6-8

Number of completed academic course hours specifically in
    reading education.

_____ None   _____ 9-11
_____ 3-5   _____ 12-over
_____ 6-8

Portion of assignment spent teaching adult education.

_____ part time   _____ full time

What type of academic appointment do you now hold?

_____ Classroom instructor   _____ Counselor
_____ Administrator   _____ Other
_____ College educator

Population of community in which you hold academic appointment.

_____ below 5,000   _____ 50,000 - 100,000
_____ 5,000 - 15,000   _____ above 100,000
_____ 15,000 - 50,000

What is the primary ethnic background of the adults enrolled
    in your program?

_____ Predominantly White   _____ Predominantly American
_____ Predominantly Black   Indian
_____ Predominantly Mexican   _____ Predominantly Oriental
        American   _____ Heterogeneous

Please turn to the next page and carefully study the areas of
reading instruction. Choose 10 areas of interest and evaluate
on a scale of 1-10 according to the needs of your program. All
of the skills listed on the following page pertain specifically
to adults. (Let #1 be your highest priority and #10 be your
lowest priority).

☐ Vocabulary Development: means of acquiring knowledge and usage of new words.

☐ Diagnostic and Evaluative Skills: means of determining a student's reading level and evaluating his progress.

☐ Word Attack Skills: ability to recognize words and decode through phonic and structural analysis.

☐ Motivation: provision of incentive for reading.

☐ Comprehension: instruction in reading for meaning and understanding.

☐ Readability: ease with which materials are read and understood.

☐ Counseling: help given to students to cope with their frustrations due to reading disabilities.

☐ Study Skills: instruction in following directions and fulfilling class assignments.

☐ Critical Skills: instruction in reading with discrimination with reference to source, purpose, and facts.

☐ Appreciation: reading as a means of recreation.

☐ Application: reading as a source of information and aid to personal and social development.

☐ Resource Materials: information on finding and evaluating instructional aids for teaching reading.

☐ Listening Skills: comprehension of orally presented material.

☐ Bilingual Skills: provision for students whose second language is English

☐ Interest Discovery: assessment and provision of materials for your students.

☐ Fluency and Flexibility of Rate: instruction in determining speed of reading according to material.

☐ Public Relations: effectiveness in working with administrators, school boards, local and state agencies in setting up and maintaining reading programs.

☐ Coping Skills: effectiveness in dealing with personal frustrations in teaching reading to adults.

☐ Use of Paraprofessionals: effectiveness in using aids and volunteers in instructional programs in reading improvement.

☐ Reading Approaches: various methods of teaching reading to adults.

Please use this space for any additional comments you may wish to make regarding the improvement of adult reading instruction.

_____

_____

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_____

_____

_____

Thank you for your cooperation in filling in this assessment. The information gained will be used in the development of modules for staff development in the area of teaching reading skills to adults.

DART
Developing Adult Reading in Texas
T.E.A. Project
College of Education
North Texas State University
Denton, Texas 76203 (817) 788-2212

APPENDIX B

Read each of the following statements to determine its appropriateness as an objective in the teaching of reading at the adult level. If you disagree that the objective is appropriate, please state your reasons for disagreement using documentation when possible so that the objective may be changed or adapted. Use the attached sheet, if necessary, for narrative statements or additional comments.

COMPREHENSION

General Statement: Agree   Disagree

The teacher will attain skill in providing instruction
and materials which enable his students to acquire
and develop comprehension skills.   _____   _____

Behavioral Objective I:

Through reading background information the teacher
will gain a general understanding of the importance
of comprehension to the total reading process.   _____   _____

Behavioral Objective II:

Through analysis of a specific article at its different
meaning levels, the teacher will become aware of the
levels of comprehension in reading.   _____   _____

Behavioral Objective III:

Through engaging in a study of critical reading skills
the teacher will be able to help adult students transfer
skills of reading comprehension to the use of respon-
sible consumerism.   _____   _____

Behavioral Objective IV:

Through examining guidelines to practical methods of
teaching comprehension and flexibility of reading rate
the teacher will gain an awareness of opportunities to
teach comprehension during every class session.   _____   _____

VOCABULARY

General Statement	Agree	Disagree

The teacher will attain skills in leading adult
readers to widen the breadth and depth of
usage of words.

Behavioral Objective I:

Through participating in a variety of activities,
the teacher will comprehend the value of
vocabulary development as a part of the total
reading process.

Behavioral Objective II:

Through the use of creative activities, the
teacher will develop skills of teaching
vocabulary enrichment.

Behavioral Objective III:

Through examining various forms of word
structure, the teacher will become aware
of the importance of affixes and roots as a
means of vocabulary development.

Behavioral Objective IV:

Through studying differences between denotative
and connotative meanings, the teacher will
recognize semantics as a valuable tool in
vocabulary development.

MOTIVATION

General Statement	Agree	Disagree

The teacher will learn techniques for motivating the adult learner in specific areas of reading.

_____ _____

Behavioral Objective I:

Through participating in readings and activities, the teacher will understand the need for the use of motivational techniques.

_____ _____

Behavioral Objective II:

Through referring to his own personal experiences, the teacher will become aware of vocational needs as a motivational force in reading.

_____ _____

Behavioral Objective III:

Through involvement in creative thought and narrative, the teacher will realize the need to motivate adult students to read for utilitarian and problem solving purposes.

_____ _____

Behavioral Objective IV:

Through active participation in the enabling activities, the teacher will understand how an individual's personal growth needs can serve as a strong motivational tool in teaching reading.

_____ _____

WORD ATTACK

The teacher will attain competencies in
teaching adult readers to become pro-
ficient in word attack skills.

                _____   _____

Behavioral Objective I:

Through reading the discussion on the
definition and importance of word attack
skills the teacher will become aware of
the relationship which the skills have to
each other.

                _____   _____

Behavioral Objective II:

Through participating in gaming activities,
the teacher will become aware of various
methods of teaching word attack skills.

                _____   _____

Behavioral Objective III:

Through examining exercises from adult
workbooks, the teacher will be able to
recognize word attack skills implemented.

                _____   _____

Behavioral Objective IV:

Through encountering a number of unfamiliar
words, the teacher will understand the im-
portance of synthesis in using all four word
attack skills simultaneously.

                _____   _____

READABILITY

General Statement	Agree	Disagree

The teacher will attain an increased awareness of the concepts involved in the readability of materials.

Behavioral Objective I:

Through participating in activities involving certain aspects of ease and difficulty in reading materials, the teacher will become aware of the various concepts involved in readability.

Behavioral Objective II:

Through reading various levels of printed material the teacher will become aware of the three reading levels -- independent, instructional, and frustrational.

Behavioral Objective III:

Through using readability formulas and the cloze technique the teacher will attain the skill of determining the reading level of materials.

Behavioral Objective IV:

Through rewriting excerpts of different materials to a simpler reading level, the teacher will acquire the skill of adapting materials to meet the needs of individual readers.

DIAGNOSIS

	Agree	Disagree

General Statement

The teacher will attain skills in determining the student's present reading level as well as areas of strengths and weaknesses.

_____ _____

Behavioral Objective I:

Through reading and responding to selected narratives related to a rationale for diagnosis of reading skills, the teacher will recognize the need for determining those skills and synthesizing the diagnostic data.

_____ _____

Behavioral Objective II:

Through the examination of various assessments, the teacher will acquire an understanding of the differences between formal and informal diagnoses.

_____ _____

Behavioral Objective III:

Through examining various methods for diagnosing specific skills, the teacher will become proficient in recognizing each skills area.

_____ _____

Behavioral Objective IV:

Through reading a case study of an adult reader and determining his specific strengths and weaknesses, the teacher will exhibit an understanding of synthesizing diagnostic data.

_____ _____

STUDY SKILLS

General Statement	Agree	Disagree

The teacher will develop an increased aware-
ness of the importance of study skills and
their interdependence with other components
in the reading process.

Behavioral Objective I:

Through reading a given narrative article,
the teacher will become aware of the
importance of study skills to the total
reading process.

Behavioral Objective II:

Through engaging in activities related to
physical and psychological study settings,
the teacher will understand environmental
requirements of study skills.

Behavioral Objective III:

Through participating in a variety of activities,
the teacher will gain competency in teaching
organizational study skills.

Behavioral Objective IV:

Through participating in creative activities,
the teacher will gain competency in teaching
locational study skills.

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READING APPROACHES

	Agree	Disagree
General Statement		
The teacher will become aware of and skilled in the most commonly used methods of teaching reading.	____	____
Behavioral Objective I:		
Through participating in background reading the teacher will gain knowledge in the most commonly used approaches of teaching reading to adults.	____	____
Behavioral Objective II:		
Through participating in creative activities, the teacher will become aware of the importance of the language experience approach in teaching adults to read.	____	____
Behavioral Objective III:		
Through examining a variety of commercially prepared reading materials, the teacher will become aware of the usage of programmed materials and equipment in teaching adults to read.	____	____
Behavioral Objective IV:		
Through reading about and examining a floor plan of an exemplary reading center, the teacher will become aware of the value of using an eclectic approach to teaching reading.	____	____

LISTENING SKILLS

	Agree	Disagree

General Statement

The teacher will attain an increased awareness of listening as it relates to the reading process and will learn techniques for teaching listening skills to the adult reader.

Behavioral Objective I:

Through participating in reading narratives and engaging in activities, the teacher will acquire a general knowledge of the skill of listening.

Behavioral Objective II:

Through studying the elements of concentration, the teacher will gain an awareness of the importance of attitude in the listening process.

Behavioral Objective III:

Through engaging in a variety of activities, the teacher will be able to relate listening to other instructional skills.

Behavioral Objective IV:

Through studying selected recommended practices, the teacher will learn strategies for teaching listening.

ENGLISH AS A SECOND LANGUAGE

General Statement

<div align="right">Agree   Disagree</div>

The teacher will learn techniques for teaching the adult for whom English is a second language, as well as methods for testing and placing the ESL student.

_____   _____

Behavioral Objective I:

Through participation in a variety of learning activities, the teacher will become aware of the sound system and methods of teaching it.

_____   _____

Behavioral Objective II:

Through active participation in a variety of learning activities, the teacher will become aware of sentence structure and methods of teaching it.

_____   _____

Behavioral Objective III:

As a result of participation in the enabling activities, the teacher will have become aware of meaning in words, sentences, paragraphs and passages and methods of teaching them.

_____   _____

Behavioral Objective IV:

After familiarizing himself with both the theory of testing and the types of tests, the teacher will demonstrate knowledge acquisition.

_____   _____

Please rank order the following reading areas as to their importance to the total reading process. Number one will be the topic you feel is most important, and number ten will be the topic you feel is least important.

_____ COMPREHENSION

_____ VOCABULARY

_____ MOTIVATION

_____ WORD ATTACK

_____ READABILITY

_____ DIAGNOSIS

_____ STUDY SKILLS

_____ READING APPROACHES

_____ LISTENING SKILLS

_____ ENGLISH AS A SECOND LANGUAGE

The giving of your time, cooperation, and help in this validation process is most sincerely appreciated.

If you wish to make any comments, positive or negative, concerning the validity of the modules, or their objectives, please use the attached sheets.

COMPREHENSION

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

VOCABULARY

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

MOTIVATION

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

WORD ATTACK SKILLS

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

READABILITY

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

DIAGNOSIS

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

LISTENING

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

STUDY SKILLS

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

ENGLISH AS A SECOND LANGUAGE

General Statement:

Behavioral Objective I:

Behavioral Objective II:

Behavioral Objective III:

Behavioral Objective IV:

APPENDIX C

COMPREHENSION
Pre-Assessment

Write the number of your answer in the blank beside each question.

_____ 1. Comprehension is

1. precisely defined by reading experts.
2. more widely written about than any other reading skill.
3. not affected by the material being read.
4. a unitary skill.

_____ 2. One problem which complicates the teaching of comprehension skills to adults is that

1. experts have not written much about comprehension.
2. teachers do not adequately understand the thinking process.
3. there are no tests for comprehension.
4. most adults are not interested in improving their comprehension.

_____ 3. A prerequisite to comprehending written language is ability to

1. read phonetically.
2. comprehend oral language.
3. comprehend non-verbal clues.
4. use the dictionary.

_____ 4. When using a telephone directory, typewriter, multiplication tables, etc., an adult is exhibiting the skill of

1. literal recognition and recall.
2. context clues.
3. reinforcement.
4. inferential comprehension.

_____ 5. The highest level of comprehension is represented by the ability to

1. distinguish between fact and opinion.
2. recognize propaganda.
3. react to the author's accuracy and purpose.
4. all of the above.

_____ 6. Being able to recognize implied ideas for which there is substantiating evidence represents

    1. inferential comprehension.
    2. the highest level of comprehension.
    3. the most basic level of comprehension.
    4. evaluative comprehension.

_____ 7. There is evidence that achievement in high level comprehension skills is most dependent upon

    1. the student's intellectual ability.
    2. the student's motivation.
    3. the kind of instructional guidance that is given a student.
    4. the reading level of materials used.

_____ 8. One of the most valuable techniques for the teacher in teaching comprehension is

    1. questioning.
    2. drill.
    3. workbooks.
    4. tests.

_____ 9. The comprehension skill most relevant to being a responsible consumer is

    1. recall of detail.
    2. critical thinking.
    3. memory.
    4. figurative comprehension.

_____ 10. One of the best resources for teaching critical thinking is

    1. the cassette.
    2. the newspaper.
    3. the dictionary.
    4. the student's own background.

_____ 11. Since time is a major consideration for adult students who have full-time responsibilities beyond their studies, the teacher should

     1. avoid outside assignments.
     2. avoid evaluating the students.
     3. allow time during class to begin assignments.
     4. allow unlimited absences.

_____ 12. Which of the following is the least crucial to comprehension?

     1. memory
     2. oral understanding
     3. ability to pronounce words
     4. motivation

_____ 13. When using drill techniques in teaching adults it is imperative for the teacher to

     1. provide immediate follow-up to evaluate and redirect.
     2. insist on precision of response.
     3. avoid giving input more than once in a session.
     4. avoid giving context clues.

_____ 14. Critical reading skills

     1. are an inherent part of comprehension.
     2. must be taught, since they are not derived directly from comprehension.
     3. are not as necessary to adults as to children.
     4. none of the above.

_____ 15. Reading experts feel that in regard to speed reading

     1. adults should beware of speed reading courses.
     2. more emphasis should be placed on speed reading.
     3. flexibility in reading is more important than speed.
     4. the efficient reader reads all printed material at the same rate of speed.

VOCABULARY

_____ 16. An individual's speaking vocabulary

    1. is larger than his reading vocabulary.
    2. is largely dependent upon his educational level.
    3. is fixed after adolescence.
    4. is made up of 3 or more levels.

_____ 17. The nonverbal vocabulary is

    1. by far the largest type.
    2. by far the smallest type.
    3. not a vital factor in understanding word meanings.
    4. not often used by the undereducated adult.

_____ 18. An adult student's vocabulary

    1. is more limited today because of television.
    2. can be broadly divided into a general and a technical vocabulary.
    3. tends to decrease with age.
    4. is not influenced very much by experiential factors.

_____ 19. Which of the following is most heavily influenced by ethnic and socio-economic factors?

    1. the adult student's general vocabulary
    2. the adult student's reading speed
    3. the adult student's listening comprehension
    4. the adult student's technical vocabulary

_____ 20. The most important thing for a teacher to remember when working with adult learners on vocabulary development is that

    1. the student's dignity must be carefully preserved.
    2. non-standard English should be discouraged at all times.
    3. workbooks must be carefully selected.
    4. all aspects of vocabulary development must be emphasized.

_____ 21. Teaching vocabulary through word analogies

    1. is too difficult for the basic reader.
    2. is a way of teaching words in isolation.
    3. doesn't allow for varying ability levels.
    4. can be a most productive way to increase vocabulary.

_____ 22. One of the most productive ways of teaching adult vocabulary development is by

    1. having students list and define words.
    2. using audio-visual aids.
    3. teaching analogies and accompanying word relationships.
    4. having students write original stories.

_____ 23. Teaching affixes and roots

    1. has little value for adults.
    2. is a relatively sophisticated part of reading instruction.
    3. requires a fairly thorough knowledge of Latin.
    4. none of the above.

_____ 24. Learning some root words from a classic language such as Greek or Latin can help the adult student to

    1. apply the foreign vocabulary to their usage of the English language.
    2. increase their reading speed.
    3. increase their English vocabulary.
    4. improve their critical thinking ability.

_____ 25. Denotative meanings of words

    1. determine the attitude or mood of the author.
    2. must be learned through experience.
    3. are found in the dictionary.
    4. are sometimes found in the dictionary.

_____ 26. An adult's listening vocabulary

    1. is more limited than his reading vocabulary.
    2. is not as important as his speaking vocabulary.
    3. is his second largest.
    4. is larger than his nonverbal vocabulary.

_____ 27. An awareness of connotations and emotionally toned words is not required

    1. on a sense-meaning level.
    2. when reading between the lines.
    3. in discovering persuasion attempts.
    4. in improving critical thinking ability.

_____ 28. An adult student's speaking vocabulary

    1. is limited by the concepts the reader brings to the material.
    2. is even more limited than his listening vocabulary.
    3. is larger than his non-verbal vocabulary.
    4. is a very important means of acquiring information.

_____ 29. The vocabulary workbook

    1. may not meet the needs of the adult reader with limited ability.
    2. cannot help the adult student increase his vocabulary knowledge.
    3. is the best way for the adult student to increase his vocabulary.
    4. none of the above characterize the vocabulary workbook.

_____ 30. Many educators feel that the most productive way to teach vocabulary development is

    1. to have students learn a foreign language.
    2. to have students list and define words.
    3. to teach analogies and word relationships.
    4. to drill to the Dolch basic sight vocabulary.

_____ 31. Emotionally toned words are an example of

    1. connotations.
    2. denotations.
    3. semantics.
    4. verbosity.

_____ 32. Semantic sensitivity refers to

    1. a realization that words spoken in anger can hurt.
    2. an awareness that words have more than one meaning.
    3. an awareness that denotations of words are sufficient.
    4. none of the above.

MOTIVATION

Mark the answer with a 1 for True, 2 for False

_____ 33. While it is a factor in the reading process, motivation is not the most important element.

_____ 34. Adults need constant re-motivation because of their doubts about their ability to learn.

_____ 35. Because most adults are not self-motivated, the teacher must initially provide the student with motivation.

_____ 36. The principle "nothing succeeds like success" is more applicable to teaching reading to children than to adults.

_____ 37. The law of effect means that people tend to accept and repeat those responses which are pleasant and satisfying.

_____ 38. The law of intensity refers to what Maslow terms a "peak" experience.

_____ 39. Giving an adult work that is too easy for him can cause an emotional block to learning.

_____ 40. In dealing with the subject of motivation, the teacher must be considered as the most valuable source for the adult student.

_____ 41. The most effective motivational technique for most adults is to assure them that reading instruction will mean a better job.

_____ 42. Most vocational in-service or on-the-job training is done through reading.

_____ 43. Applico teaches the adult how to decipher the wording used in various types of guaranties and warranties.

_____ 44. Sentence stems are a good way to discover students' interests.

_____ 45. A conflict is a type of drive which forces a person to move toward a goal.

_____ 46. The law of effect states that the consequences of any action may be predicted in advance.

_____ 47. Reading ability is important in the acquisition of skills necessary for initial employment, but not so much in maintaining effectiveness in performing the job.

_____ 48. An individual's inability to read is highly related to a lack of self respect.

WORD ATTACK

_____ 49. In attempting to remediate adult students, sight words should be taught

    1. in context.
    2. first.
    3. by the kinesthetic method.
    4. only after instruction in phonetic analysis.

_____ 50. The approach to teaching word recognition through the sense of feeling along with the visual and auditory is known as the

    1. Kucera-Frances method.
    2.   visual-motor method.
    3.   kinesthetic method.
    4.   Flash-X method.

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_____ 51. Structural analysis refers to

    1. syllabication and compound words.
    2. identifying sounds in words.
    3. information that helps give meaning to words.
    4. the general configuration of words.

_____ 52. Sound analysis

    1. is best taught by the visual-motor method.
    2. is the best method of word attack.
    3. doesn't allow the student to learn words visually.
    4. is an integral part of all word attack skills.

_____ 53. Sixty percent of the reading vocabulary is made up of some

    1. 1000 words.
    2. 500 words.
    3. 100 words.
    4. 200 words.

_____ 54. Using gaming to teach word attack skills

    1. is useful mostly with children.
    2. doesn't allow for repetition.
    3. precludes teacher participation.
    4. none of the above.

_____ 55. The effect of "overlearing" in developing word attack skills in adults
is

    1. demoralizing.
    2. beneficial.
    3. of indifferent value.
    4. conducive to dependence on look-see technique.

_____ 56. "Overlearning" of reading skills is a term which refers to

    1. overachievement.
    2. too much drill.
    3. automatic mastery of a skill.
    4. depencence on the look-see method of word recognition.

_____ 57. Context clues

    1. may be illustrations.
    2. can't be taught in a gaming situation.
    3. though useful, cannot give meaning to a word.
    4. have nothing to do with paragraphing.

_____ 58. When using a game to teach word attack skills

    1. be sure repetition reinforces the skill being taught.
    2. use only commercially prepared games.
    3. more than one skill is involved.
    4. success is not based merely on correct use of one skill.

_____ 59. One misconception teachers of reading may have about workbooks is that since they are commercially prepared, they

    1. are more attractive than teacher-made materials.
    2. do not need to be evaluated by the teacher.
    3. are more expensive than teacher-made materials.
    4. will not meet individual needs.

_____ 60. The term "word bank" refers to

    1. the two hundred words that make up 60% of the reading vocabulary of the average reader.
    2. the stock of written or printed words which a reader recognizes at a glance.
    3. the Kucera-Francis basic sight vocabulary for adults.
    4. the unknown words that a reader may encounter.

_____ 61. Which of the following methods of teaching word recognition is most slow and laborious?

1. the visual
2. the perceptual
3. the visual-motor
4. the kinesthetic

_____ 62. The CSSD formula for word attack refers to

1. techniques other than the look-say method which are used in identifying and recognizing words.
2. a method of syllabication.
3. a technique for using a dictionary or thesaurus.
4. a technique for figuring the optimum amount of phonics instruction that is desirable.

_____ 63. Which of the following principles applies to the use of a dictionary in word recognition?

1. a dictionary should be used as a last resort
2. a dictionary should be used as the first step
3. a dictionary should be used for clarification and confirmation of understanding
4. the dictionary has no place in independent reading

_____ 64. One of the main advantages an adult learner has over a young child just beginning to read is

1. a longer attention span.
2. a vast and varied realm of experience.
3. a greater tolerance for frustration.
4. sustained motivation.

_____ 65. In the development of mature reading skills

1. drill is unnecessary.
2. "overlearning" is advantageous.
3. games are inappropriate.
4. mastery of word attack skills is sufficient.

_____ 66. Which of the following is not a way of teaching sight words?

1. the kinesthetic method
2. the repeating method
3. the visual-motor method
4. the visual method

_____ 67. Gaming is a device which helps the learner

1. relate past experiences to new experiences.
2. develop skill at interpretation of author's purpose.
3. learn the rules of tennis.
4. relate to others socially.

_____ 68. To check on the use of games, you should ask yourself,

1. was the game interesting and enjoyable?
2. was the table level?
3. were the rules devised by the learners?
4. all of the above.

_____ 69. To attain fluency, the learner may use word attack skills such as

1. psychotherapeutic transfer.
2. the connelly method.
3. structural analysis.
4. composition.

_____ 70. Word attack skills may be said to be such techniques as

1. context.
2. structure.
3. phonics.
4. all of the above.

DIAGNOSIS

_____ 71. Diagnostic procedure in the adult classroom should be

1. prescribed on the basis of what has been done in the past.
2. begun as soon as the student enters the classroom.
3. performed by someone other than the teacher.
4. eliminated entirely.

_____ 72. The two hundred twenty words most frequently used in easy reading materials are known as

1. basic sight vocabulary.
2. diphthongs.
3. colloquial vocabulary.
4. Fry Readability list.

_____ 73. An individual's analysis of words through the study of roots, prefixes, suffixes, word beginnings, word endings, word families, etc. is known as

1. structural analysis.
2. phonetic analysis.
3. cloze technique.
4. kinesthetic method.

_____ 74. One disadvantage of referring an adult reading case to a clinic just for diagnosis is that

1. the process of diagnosis may increase the anxiety the person already has about his reading problems.
2. the clinician is less likely than a teacher to spot psychological and medical problems.
3. adult students already know their strengths and weaknesses.
4. clinicians have difficulty establishing rapport with adults.

_____ 75. A major goal in student-centered diagnosis is

1. to give the student responsibility for self-appraisal.
2. to encourage the student to take the initiative in solving his own reading problems.
3. to help the student see his strengths and limitations objectively.
4. all of the above.

_____ 76. The major difference in group and individual reading tests is that

1. individual tests are more realiable.
2. group tests are easier to administer.
3. individual tests are informal.
4. individual tests are more diagnostic in nature.

_____ 77. Informal assessment is important in diagnosis because

1. tests are not a perfect indicator of a learner's reading ability.
2. the functional application of reading skills can be measured only through informal testing.
3. it samples more kinds of behaviors than does formal testing.
4. all of the above.

_____ 78. Which of the following has <u>not</u> proved to be a useful source of information in informal assessment?

1. pupils' self-evaluations of their reading abilities
2. teacher-made tests
3. brief skill tests from workbooks
4. anecdotal records

_____ 79. Tentative diagnostic hypotheses should

1. ignore the genesis of reading difficulty.
2. be reviewed and revised as new information is gained.
3. be concerned largely with teacher-perceived reading problems.
4. be based on the student's feelings about his reading problems.

____ 80. Time spent on diagnosis is justified only when

    1. clinicians are used for diagnosing.
    2. the student requests diagnosis.
    3. the procedures used by the teachers are based on information gained from the diagnosis.
    4. time spent on diagnosis is always justified.

____ 81. Students reading at the same rate regardless of the type of material they are reading indicates

    1. inability to skim.
    2. inability to locate information.
    3. high rate of reading at the expense of accuracy.
    4. inability to adjust reading rate to the difficulty of the material.

____ 82. Inability to derive meaning and/or pronunciation of a word from the way it is used in a sentence indicates

    1. sight vocabulary not up to grade level.
    2. failure to comprehend.
    3. inability to perform structural analysis.
    4. inability to use context clues.

____ 83. When a student reads from right to left instead of left to right, his problem is diagnosed as

    1. lack of desirable structural analysis.
    2. incorrect phrasing.
    3. inversion or reversal.
    4. none of the above.

____ 84. Word-by-word reading is recognized by

    1. failure of the pupil to pause or take a breath at the proper place.
    2. pupil pausing after each word, not allowing the words to flow as they would in a conversation.
    3. pupil re-reading words or phrases.
    4. pupil omitting certain words and/or phrases.

_____ 85. The levels of learning are

    1. independent.
    2. instructional.
    3. frustration.
    4. all of the above.

_____ 86. One disadvantage of formal testing is

    1. the data is based on national population.
    2. the frustration level may be high for disabled.
    3. they have been tested for validity and reliability.
    4. they compare individual scores to others.

_____ 87. The cloze technique consists of the student's ability to supply

    1. the missing syllable.
    2. the rhyming word.
    3. the correct spelling.
    4. missing word by using the context as a clue.

APPENDIX D

October 18, 1976

Dear Colleague:
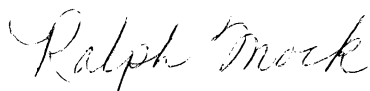
Project DART is a staff development program for teaching reading skills to adults. Ten training modules have been designed by qualified specialists in reading and adult education in a cooperative effort.

The modules are now ready for field testing. The project staff, located at North Texas State University, is accepting invitations to conduct workshops in one or more of the specified areas of reading. Please allow a minimum of three hours for a single workshop. The staff will furnish the consultant(s) and will cover their expenses.

If you are interested in being a part of this exciting endeavor as well as providing an outstanding workshop for your teachers, call or write Dr. Ann Williamson, Project Director, or one of her research assistants. Engagements will be accepted only on an early invitational basis. All field testing must be completed by March 1, 1977.

We solicit your interest and your support in this project.

Sincerely,

Ralph Mock

Ralph Mock, Director
Program Planning
Division of Adult and
    Continuing Education

Ann Williamson

Ann Williamson
Director
Project DART

Enclosure

jf

APPENDIX E

DEMOGRAPHIC DATA SHEET
(Percentages Reported for Group I)

1. Sex: 27.32 M
          72.68 F

2. Age: 15.12 20-25   10.24 41-45
         24.88 26-30   7.80 46-50
         17.56 31-35   14.63 50-over
          9.76 36-40

3. Ethnic Background:

   69.27 Anglo American   .98 American Indian
   19.02 Mexican American   0 Other (please specify)
   10.73 Black American   _____

4. TEA Geographic location where you are now teaching.

   26.83 Denton Area   20.50 Corpus Christi Area
     .98 Big Spring Area   18.04 Austin Area
      0 Edinburg Area   18.04 San Antonio Area
   15.61 Houston Area   0 Big Bend Area

5. Academic Preparation:

   25.37 less than Bachelor's   10.73 Master's Degree
         Degree
   47.80 Bachelor's Degree and   16.10 Master's Degree and
         some graduate work   post-graduate work

6. Years of experience in teaching adult education.
   (less than 1 year's experience shall be entered as 1 year)

   55.12 1-2 years   13.17 6-8 years
   27.80 3-5 years   3.90 9-over

7. Prior experience in teaching:

   28.29 No previous experience   71.71 Previous experience

   38.04 Elementary

       10.73 1-2 years   5.85 6-8 years
       12.68 3-5 years   8.78 9-over

   27.32 Junior High or Middle School

       11.22 1-2 years   3.41 6-8 years
        7.32 3-5 years   5.37 9-over

   29.75 Senior High School

        7.80 1-2 years   6.34 6-8 years
        8.29 3-5 years   7.32 9-over

   11.32 College or University

        7.32 1-2 years   .98 6-8 years
        1.95 3-5 years   .98 9-over

_____ Other Institutions (please specify) _____

    6.34 1-2 years   .98 6-8 years
    4.88 3-5 years   1.46 9-over

8.   In what area(s) do you hold a degree?

    32.68 Elementary Education   2.93 Reading Education
    42.44 Secondary Education   2.93 Vocational Education
    3.41 Higher Education   .49 Adult Continuing
    3.41 Counselor Education   Education
                           16.10 Other _____

9.   Please check which of the following kinds of adult education
    you have received.

    79.51 Local in-service   0 College credit course
    47.80 2 to 5 day workshop   How many credit hours?
    17.07 1 to 3 week institute

                          2.93 Other (please specify)
                       _____

10. Portion of assignment spent teaching adult education.

    69.76 part time   30.24 full time

11. What type of academic appointment do you now hold?

    67.80 Classroom instructor   3.90 Counselor
    8.29 Administrator   19.02 Other
     0 College educator

12. Population of community in which you hold acedemic
    appointment.

    18.05 below 5,000   7.80 50,000 - 100,000
    20.49 5,000 - 15,000   16.59 above 100,000
    31.71 15,000 - 50,000

13. What is the primary ethnic background of the adults enrolled
    in your program?

    38.05 Predominantly White   0 Predominantly American
    20.98 Predominantly Black   Indian
    34.15 Predominantly Mexican   6.83 Predominantly Oriental
         American

DEMOGRAPHIC DATA SHEET
(Percentages Reported for Group II)

1. Sex: 17.24 M
         87.76 F

2. Age: 13.79 20-25   6.90 41-45
         34.48 26-30   10.34 46-50
         13.79 31-35   17.24 50-over
         3.45 36-40

3. Ethnic Background:

   75.86 Anglo American   0 American Indian
   24.14 Mexican American   0 Other (please specify)
   0 Black American   _____

4. TEA Geographic location where you are now teaching.

   _____ Denton Area   _____ Corpus Christi Area
   100. Big Spring Area   _____ Austin Area
   _____ Edinburg Area   _____ San Antonio Area
   _____ Houston Area   _____ Big Bend Area

5. Academic Preparation:

   27.59 less than Bachelor's   6.90 Master's Degree
         Degree
   55.17 Bachelor's Degree and   10.34 Master's Degree and
         some graduate work   post-graduate work

6. Years of experience in teaching adult education.
   (less than 1 year's experience shall be entered as 1 year)

   68.97 1-2 years   0 6-8 years
   24.13 3-5 years   6.90 9-over

7. Prior experience in teaching:

   27.59 No previous experience 72.41 Previous Experience

   41.36 Elementary

      10.34 1-2 years   0 6-8 years
      10.34 3-5 years   20.68 9-over

   27.59 Junior High or Middle School

      13.79 1-2 years   3.45 6-8 years
      6.90 3-5 years   3.45 9-over

   20.70 Senior High School

      6.90 1-2 years   3.45 6-8 years
      6.90 3-5 years   3.45 9-over

   6.90 College or University

      6.90 1-2 years   0 6-8 years
      0 3-5 years   0 9-over

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_3.45_ Other Institutions (please specify) _____

    _3.45_ 1-2 years   _0_ 6-8 years
    _0_ 3-5 years   _0_ 9-over

8. In what area(s) do you hold a degree?

    _34.48_ Elementary Education   _10.34_ Reading Education
    _34.48_ Secondary Education   _3.45_ Vocational Education
    _3.45_ Higher Education   _0_ Adult Continuing
    _3.45_ Counselor Education   Education
                            _10.34_ Other _____

9. Please check which of the following kinds of adult education you have received.

    _68.97_ Local in-service   _0_ College credit course
    _27.59_ 2 to 5 day workshop   How many credit hours?
    _0_ 1 to 3 week institute

                            _3.45_ Other (please specify)
                                          _____

10. Portion of assignment spent teaching adult education.

    _89.66_ part time   _10.34_ full time

11. What type of academic appointment do you now hold?

    _75.86_ Classroom instructor   _0_ Counselor
    _3.45_ Administrator   _20.69_ Other
    _0_ College educator

12. Population of community in which you hold acedemic appointment.

    _24.14_ below 5,000   _10.34_ 50,000 - 100,000
    _27.59_ 5,000 - 15,000   _24.14_ above 100,000
    _13.79_ 15,000 - 50,000

13. What is the primary ethnic background of the adults enrolled in your program?

    _31.03_ Predominantly White   _0_ Predominantly American
    _0_ Predominantly Black   Indian
    _68.97_ Predominantly Mexican   _0_ Predominantly Oriental
            American

DEMOGRAPHIC DATA SHEET
(Percentages Reported for Group III)

1. Sex: 43.75 M
         56.25 F

2. Age: 12.50 20-25   12.50 41-45
         28.13 26-30   3.13 46-50
         12.50 31-35   6.25 50-over
         25.00 36-40

3. Ethnic Background:

   50.00 Anglo American   0   American Indian
   50.00 Mexican American   0   Other (please specify)
     0   Black American   _____

4. TEA Geographic location where you are now teaching.

   _____ Denton Area   _____ Corpus Christi Area
   _____ Big Spring Area   _____ Austin Area
   _____ Edinburg Area   _____ San Antonio Area
   _____ Houston Area   100.   Big Bend Area

5. Academic Preparation:

   12.50 less than Bachelor's   15.62 Master's Degree
         Degree
   59.38 Bachelor's Degree and   12.50 Master's Degree and
         some graduate work   post-graduate work

6. Years of experience in teaching adult education.
   (less than 1 year's experience shall be entered as 1 year)

   53.13 1-2 years   6.25 6-8 years
   37.50 3-5 years   3.13 9-over

7. Prior experience in teaching:

   9.38 No previous experience   90.62 Previous Experience

   50.01 Elementary

      15.63 1-2 years   6.25 6-8 years
      15.63 3-5 years   12.50 9-over

   37.51 Junior High or Middle School

      18.75 1-2 years   3.13 6-8 years
       9.38 3-5 years   6.25 9-over

     0 Senior High School

      _____ 1-2 years   _____ 6-8 years
      _____ 3-5 years   _____ 9-over

     0 College or University

      _____ 1-2 years   _____ 6-8 years
      _____ 3-5 years   _____ 9-over

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<u>12.50</u> Other Institutions (please specify) _____

    <u>6.25</u> 1-2 years   <u>0</u> 6-8 years
    <u>6.25</u> 3-5 years   <u>0</u> 9-over

8. In what area(s) do you hold a degree?

    <u>53.13</u> Elementary Education   <u>0</u> Reading Education
    <u>40.63</u> Secondary Education   <u>0</u> Vocational Education
    <u>0</u> Higher Education   <u>0</u> Adult Continuing
    <u>0</u> Counselor Education   Education
                       <u>6.25</u> Other _____

9. Please check which of the following kinds of adult education
   you have received.

    <u>90.62</u> Local in-service   <u>3.13</u> College credit course
    <u>6.25</u> 2 to 5 day workshop   How many credit hours?
    <u>0</u> 1 to 3 week institute
                      <u>0</u> Other (please specify)
                             _____

10. Portion of assignment spent teaching adult education.

    <u>87.50</u> part time   <u>12.50</u> full time

11. What type of academic appointment do you now hold?

    <u>93.75</u> Classroom instructor   <u>3.13</u> Counselor
    <u>3.13</u> Administrator   <u>0</u> Other
    <u>0</u> College educator

12. Population of community in which you hold acedemic
    appointment.

    <u>6.25</u> below 5,000   <u>9.38</u> 50,000 - 100,000
    <u>6.25</u> 5,000 - 15,000   <u>65.63</u> above 100,000
    <u>12.50</u> 15,000 - 50,000

13. What is the primary ethnic background of the adults enrolled
    in your program?

    <u>6.25</u> Predominantly White   <u>0</u> Predominantly American
    <u>0</u> Predominantly Black   Indian
    <u>81.25</u> Predominantly Mexican <u>12.50</u> Predominantly Oriental
         American

APPENDIX F

CONTENT VALIDITY OF DART TEST INSTRUMENT

Please read through the following five modules. In the space provided, write down the key concepts in each module that you think should be tested in the pre-test instrument. Space has been provided for you to list additional concepts you feel should be tested.

COMPREHENSION

1.

2.

3.

4.

5.

Additional concepts from this module which should be tested.

MOTIVATION

1.

2.

3.

4.

5.

Additional concepts from this module which should be tested.

<u>VOCABULARY</u>

1.

2.

3.

4.

5.

Additional concepts from this module which should be tested.

<u>WORD ATTACK SKILLS</u>

1.

2.

3.

4.

5.

Additional concepts from this module which should be tested.

<u>DIAGNOSIS</u>

1.

2.

3.

4.

5.

Additional concepts from this module which should be tested.

APPENDIX G

CONTENT VALIDITY OF DART TEST INSTRUMENT

As a panel of reading experts, you previously were asked to list five or more concepts from each of five DART modules which should be included in the pre-test for each of these modules. Those concepts designated have now been compressed into four common categories. Please rank order these concepts as to their relative importance to the specific module indicated. For example, a number 1 indicates that in your opinion this is the most important concept which should be included in the pre-test for this particular module.

COMPREHENSION

_____ understanding levels of comprehension
_____ transferring comprehension skills to efficient consumerism
_____ recognizing factors affecting comprehension
_____ acquiring methods of teaching comprehension

MOTIVATION

_____ understanding factors affecting motivation
_____ utilizing vocational needs to motivate adults to read
_____ utilizing life coping skills to motivate adults to read
_____ acquiring skills in motivating adult learners

VOCABULARY

_____ acquiring knowledge of vocabulary types
_____ acquiring knowledge to teach affixes and roots
_____ understanding how vocabulary is acquired
_____ acquiring knowledge to teach semantics

WORD ATTACK

_____ acquiring methods of teaching sight words
_____ understanding the use of gaming in teaching word attack
       skills
_____ acquiring knowledge to teach specific word attack skills
_____ recognizing the importance of synthesizing word attack
       skills

DIAGNOSIS

_____ understanding levels of reading
_____ recognizing formal and informal diagnostic techniques
_____ understanding the need for diagnosing strengths and
       weaknesses
_____ acquiring knowledge to write a prescription for therapy
       based on diagnosis

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APPENDIX H

CONTENT VALIDITY OF DART TEST INSTRUMENT

Each of the following five reading subscales purports to contain questions which measure those key concepts previously identified and agreed upon by the team as those most important in a test of each of the five areas. The test items should cover topics presented in the modules as well as general knowledge pertaining to the topic. On the line beside each item, please check only those which in your opinion, are content valid. Correct answers have been marked with an asterick.

CONTENT VALIDITY OF DART TEST INSTRUMENT QUESTIONS

COMPREHENSION

_____ 1. Comprehension is

    1. precisely defined by reading experts.
* 2. more widely written about than any other reading skill.
    3. not affected by the material being read.
    4. a unitary skill.

_____ 2. One problem which complicates the teaching of comprehension skills
      to adults is that

    1. experts have not written much about comprehension.
* 2. teachers do not adequately understand the _thinking_ process.
    3. there are no tests for comprehension.
    4. most adults are not interested in improving their comprehension.

_____ 3. A prerequisite to comprehending written language is ability to

    1. read phonetically.
* 2. comprehend oral language.
    3. comprehend non-verbal clues.
    4. use the dictionary.

_____ 4. When using a telephone directory, typewriter, multiplication tables,
      etc., an adult is exhibiting the skill of

* 1. literal recognition and recall.
    2. context clues.
    3. reinforcement.
    4. inferential comprehension.

_____ 5. The highest level of comprehension is represented by the ability to

    1. distinguish between fact and opinion.
    2. recognize propaganda.
    3. react to the author's accuracy and purpose.
* 4. all of the above.

6. Being able to recognize implied ideas for which there is substantiating evidence represents

   * 1. inferential comprehension.
   2. the highest level of comprehension.
   3. the most basic level of comprehension.
   4. evaluative comprehension.

7. There is evidence that achievement in high level comprehension skills is most dependent upon

   1. the student's intellectual ability.
   2. the student's motivation.
   * 3. the kind of instructional guidance that is given a student.
   4. the reading level of materials used.

8. One of the most valuable techniques for the teacher in teaching comprehension is

   * 1. questioning.
   2. drill.
   3. workbooks.
   4. tests.

9. The comprehension skill most relevant to being a responsible consumer is

   1. recall of detail.
   * 2. critical thinking.
   3. memory.
   4. figurative comprehension.

10. One of the best resources for teaching critical thinking is

   1. the cassette.
   * 2. the newspaper.
   3. the dictionary.
   4. the student's own background.

_____ 11. Since time is a major consideration for adult students who have full-time responsibilities beyond their studies, the teacher should

      1. avoid outside assignments.
      2. avoid evaluating the students.
*   3. allow time during class to begin assignments.
      4. allow unlimited absences.

_____ 12. Which of the following is the least crucial to comprehension?

      1. memory
      2. oral understanding
*   3. ability to pronounce words
      4. motivation

_____ 13. When using drill techniques in teaching adults it is imperative for the teacher to

*   1. provide immediate follow-up to evaluate and redirect.
      2. insist on precision of response.
      3. avoid giving input more than once in a session.
      4. avoid giving context clues.

_____ 14. Critical reading skills

      1. are an inherent part of comprehension.
*   2. must be taught, since they are not derived directly from comprehension.
      3. are not as necessary to adults as to children.
      4. none of the above.

_____ 15. Reading experts feel that in regard to speed reading

      1. adults should beware of speed reading courses.
      2. more emphasis should be placed on speed reading.
*   3. flexibility in reading is more important than speed.
      4. the efficient reader reads all printed material at the same rate of speed.

VOCABULARY

____ 16. An individual's speaking vocabulary

      1. is larger than his reading vocabulary.
      2. is largely dependent upon his educational level.
      3. is fixed after adolescence.
   * 4. is made up of 3 or more levels.

____ 17. The nonverbal vocabulary is

   * 1. by far the largest type.
      2. by far the smallest type.
      3. not a vital factor in understanding word meanings.
      4. not often used by the undereducated adult.

____ 18. An adult student's vocabulary

      1. is more limited today because of television.
   * 2. can be broadly divided into a general and a technical vocabulary.
      3. tends to decrease with age.
      4. is not influenced very much by experiential factors.

____ 19. Which of the following is most heavily influenced by ethnic and socio-economic factors?

   * 1. the adult student's general vocabulary
      2. the adult student's reading speed
      3. the adult student's listening comprehension
      4. the adult student's technical vocabulary

____ 20. The most important thing for a teacher to remember when working with adult learners on vocabulary development is that

   * 1. the student's dignity must be carefully preserved.
      2. non-standard English should be discouraged at all times.
      3. workbooks must be carefully selected.
      4. all aspects of vocabulary development must be emphasized.

_____ 21. Teaching vocabulary through word analogies

      1. is too difficult for the basic reader.
      2. is a way of teaching words in isolation.
      3. doesn't allow for varying ability levels.
  * 4. can be a most productive way to increase vocabulary.

_____ 22. One of the most productive ways of teaching adult vocabulary development is by

      1. having students list and define words.
      2. using audio-visual aids.
  * 3. teaching analogies and accompanying word relationships.
      4. having students write original stories.

_____ 23. Teaching affixes and roots

      1. has little value for adults.
      2. is a relatively sophisticated part of reading instruction.
      3. requires a fairly thorough knowledge of Latin.
  * 4. none of the above.

_____ 24. Learning some root words from a classic language such as Greek or Latin can help the adult student to

      1. apply the foreign vocabulary to their usage of the English language.
      2. increase their reading speed.
  * 3. increase their English vocabulary.
      4. improve their critical thinking ability.

_____ 25. Denotative meanings of words

      1. determine the attitude or mood of the author.
      2. must be learned through experience.
  * 3. are found in the dictionary.
      4. are sometimes found in the dictionary.

_____ 26. An adult's listening vocabulary

      1. is more limited than his reading vocabulary.
      2. is not as important as his speaking vocabulary.
   * 3. is his second largest.
      4. is larger than his nonverbal vocabulary.

_____ 27. An awareness of connotations and emotionally toned words is not required

   * 1. on a sense-meaning level.
      2. when reading between the lines.
      3. in discovering persuasion attempts.
      4. in improving critical thinking ability.

_____ 28. An adult student's speaking vocabulary

      1. is limited by the concepts the reader brings to the material.
   * 2. is even more limited than his listening vocabulary.
      3. is larger than his non-verbal vocabulary.
      4. is a very important means of acquiring information.

_____ 29. The vocabulary workbook

   * 1. may not meet the needs of the adult reader with limited ability.
      2. cannot help the adult student increase his vocabulary knowledge.
      3. is the best way for the adult student to increase his vocabulary.
      4. none of the above characterize the vocabulary workbook.

_____ 30. Many educators feel that the most productive way to teach vocabulary development is

      1. to have students learn a foreign language.
      2. to have students list and define words.
   * 3. to teach analogies and word relationships.
      4. to drill to the Dolch basic sight vocabulary.

_____ 31. Emotionally toned words are an example of

    * 1. connotations.
       2. denotations.
       3. semantics.
       4. verbosity.

_____ 32. Semantic sensitivity refers to

       1. a realization that words spoken in anger can hurt.
    * 2. an awareness that words have more than one meaning.
       3. an awareness that denotations of words are sufficient.
       4. none of the above.

MOTIVATION

Mark the answer with a 1 for True, 2 for False

_____ 33. While it is a factor in the reading process, motivation is not the most important element.   (2)

_____ 34. Adults need constant re-motivation because of their doubts about their ability to learn.   (1)

_____ 35. Because most adults are not self-motivated, the teacher must initially provide the student with motivation.   (2)

_____ 36. The principle "nothing succeeds like success" is more applicable to teaching reading to children than to adults.   (2)

_____ 37. The law of effect means that people tend to accept and repeat those responses which are pleasant and satisfying.   (1)

_____ 38. The law of intensity refers to what Maslow terms a "peak" experience. (2)

_____ 39. Giving an adult work that is too easy for him can cause an emotional block to learning.   (1)

_____ 40. In dealing with the subject of motivation, the teacher must be considered as the most valuable source for the adult student.   (1)

_____ 41. The most effective motivational technique for most adults is to assure them that reading instruction will mean a better job. (2)

_____ 42. Most vocational in-service or on-the-job training is done through reading. (1)

_____ 43. Applico teaches the adult how to decipher the wording used in various types of guaranties and warranties. (2)

_____ 44. Sentence stems are a good way to discover students' interests. (1)

_____ 45. A conflict is a type of drive which forces a person to move toward a goal. (2)

_____ 46. The law of effect states that the consequences of any action may be predicted in advance. (2)

_____ 47. Reading ability is important in the acquisition of skills necessary for initial employment, but not so much in maintaining effectiveness in performing the job. (2)

_____ 48. An individual's inability to read is highly related to a lack of self respect. (1)

WORD ATTACK

_____ 49. In attempting to remediate adult students, sight words should be taught

      1. in context.
 * 2. first.
      3. by the kinesthetic method.
      4. only after instruction in phonetic analysis.

_____ 50. The approach to teaching word recognition through the sense of feeling along with the visual and auditory is known as the

      1. Kucera-Frances method.
      2.   visual-motor method.
 * 3.   kinesthetic method.
      4.   Flash-X method.

_____ 51. Structural analysis refers to

      * 1. syllabication and compound words.
        2. identifying sounds in words.
        3. information that helps give meaning to words.
        4. the general configuration of words.

_____ 52. Sound analysis

        1. is best taught by the visual-motor method.
        2. is the best method of word attack.
        3. doesn't allow the student to learn words visually.
      * 4. is an integral part of all word attack skills.

_____ 53. Sixty percent of the reading vocabulary is made up of some

        1. 1000 words.
        2. 500 words.
        3. 100 words.
      * 4. 200 words.

_____ 54. Using gaming to teach word attack skills

        1. is useful mostly with children.
        2. doesn't allow for repetition.
        3. precludes teacher participation.
      *4. none of the above.

_____ 55. The effect of "overlearing" in developing word attack skills in adults is

        1. demoralizing.
      *2. beneficial.
        3. of indifferent value.
        4. conducive to dependence on look-see technique.

_____ 56. "Overlearning" of reading skills is a term which refers to

    1. overachievement.
    2. too much drill.
  * 3. automatic mastery of a skill.
    4. depencence on the look-see method of word recognition.

_____ 57. Context clues

  * 1. may be illustrations.
    2. can't be taught in a gaming situation.
    3. though useful, cannot give meaning to a word.
    4. have nothing to do with paragraphing.

_____ 58. When using a game to teach word attack skills

  *1. be sure repetition reinforces the skill being taught.
    2. use only commercially prepared games.
    3. more than one skill is involved.
    4. success is not based merely on correct use of one skill.

_____ 59. One misconception teachers of reading may have about workbooks is
that since they are commercially prepared, they

    1. are more attractive than teacher-made materials.
   *2. do not need to be evaluated by the teacher.
    3. are more expensive than teacher-made materials.
    4. will not meet individual needs.

_____ 60. The term "word bank" refers to

    1. the two hundred words that make up 60% of the reading
        vocabulary of the average reader.
   *2. the stock of written or printed words which a reader
        recognizes at a glance.
    3. the Kucera-Francis basic sight vocabulary for adults.
    4. the unknown words that a reader may encounter.

_____ 61. Which of the following methods of teaching word recognition is most slow and laborious?

    1. the visual
    2. the perceptual
    3. the visual-motor
*   4. the kinesthetic

_____ 62. The CSSD formula for word attack refers to

*   1. techniques other than the look-say method which are used in identifying and recognizing words.
    2. a method of syllabication.
    3. a technique for using a dictionary or thesaurus.
    4. a technique for figuring the optimum amount of phonics instruction that is desirable.

_____ 63. Which of the following principles applies to the use of a dictionary in word recognition?

    1. a dictionary should be used as a last resort
    2. a dictionary should be used as the first step
*   3. a dictionary should be used for clarification and confirmation of understanding
    4. the dictionary has no place in independent reading

_____ 64. One of the main advantages an adult learner has over a young child just beginning to read is

    1. a longer attention span.
*   2. a vast and varied realm of experience.
    3. a greater tolerance for frustration.
    4. sustained motivation.

_____ 65. In the development of mature reading skills

    1. drill is unnecessary.
*   2. "overlearning" is advantageous.
    3. games are inappropriate.
    4. mastery of word attack skills is sufficient.

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66. Which of the following is not a way of teaching sight words?

        1. the kinesthetic method
*   2. the repeating method
        3. the visual-motor method
        4. the visual method

67. Gaming is a device which helps the learner

*   1. relate past experiences to new experiences.
        2. develop skill at interpretation of author's purpose.
        3. learn the rules of tennis.
        4. relate to others socially.

68. To check on the use of games, you should ask yourself,

*   1. was the game interesting and enjoyable?
        2. was the table level?
        3. were the rules devised by the learners?
        4. all of the above.

69. To attain fluency, the learner may use word attack skills such as

        1. psychotherapeutic transfer.
        2. the connelly method.
*   3. structural analysis.
        4. composition.

70. Word attack skills may be said to be such techniques as

        1. context.
        2. structure.
        3. phonics.
*   4. all of the above.

DIAGNOSIS

_____ 71. Diagnostic procedure in the adult classroom should be

        1. prescribed on the basis of what has been done
           in the past.
*   2. begun as soon as the student enters the classroom.
        3. performed by someone other than the teacher.
        4. eliminated entirely.

_____ 72. The two hundred twenty words most frequently used in easy reading
materials are known as

*   1. basic sight vocabulary.
        2. diphthongs.
        3. colloquial vocabulary.
        4. Fry Readability list.

_____ 73. An individual's analysis of words through the study of roots, prefixes,
suffixes, word beginnings, word endings, word families, etc. is
known as

*   1. structural analysis.
        2. phonetic analysis.
        3. cloze technique.
        4. kinesthetic method.

_____ 74. One disadvantage of referring an adult reading case to a clinic just for
diagnosis is that

*   1. the process of diagnosis may increase the anxiety the
          person already has about his reading problems.
        2. the clinician is less likely than a teacher to spot
          psychological and medical problems.
        3. adult students already know their strengths and
          weaknesses.
        4. clinicians have difficulty establishing rapport with adults.

_____ 75. A major goal in student-centered diagnosis is

  1. to give the student responsibility for self-appraisal.
  2. to encourage the student to take the initiative in solving
     his own reading problems.
  3. to help the student see his strengths and limitations
     objectively.
 * 4. all of the above.

_____ 76. The major difference in group and individual reading tests is that

  1. individual tests are more realiable.
  2. group tests are easier to administer.
  3. individual tests are informal.
 * 4. individual tests are more diagnostic in nature.

_____ 77. Informal assessment is important in diagnosis because

  1. tests are not a perfect indicator of a learner's reading
     ability.
  2. the functional application of reading skills can be
     measured only through informal testing.
  3. it samples more kinds of behaviors than does formal
     testing.
 * 4. all of the above.

_____ 78. Which of the following has not proved to be a useful source of
     information in informal assessment?

 * 1. pupils' self-evaluations of their reading abilities
   2. teacher-made tests
   3. brief skill tests from workbooks
   4. anecdotal records

_____ 79. Tentative diagnostic hypotheses should

   1. ignore the genesis of reading difficulty.
 * 2. be reviewed and revised as new information is gained.
   3. be concerned largely with teacher-perceived reading
      problems.
   4. be based on the student's feelings about his reading
      problems.

_____ 80. Time spent on diagnosis is justified only when

     1. clinicians are used for diagnosing.
     2. the student requests diagnosis.
* 3. the procedures used by the teachers are based on information gained from the diagnosis.
     4. time spent on diagnosis is always justified.

_____ 81. Students reading at the same rate regardless of the type of material they are reading indicates

     1. inability to skim.
     2. inability to locate information.
     3. high rate of reading at the expense of accuracy.
* 4. inability to adjust reading rate to the difficulty of the material.

_____ 82. Inability to derive meaning and/or pronunciation of a word from the way it is used in a sentence indicates

     1. sight vocabulary not up to grade level.
     2. failure to comprehend.
     3. inability to perform structural analysis.
* 4. inability to use context clues.

_____ 83. When a student reads from right to left instead of left to right, his problem is diagnosed as

     1. lack of desirable structural analysis.
     2. incorrect phrasing.
* 3. inversion or reversal.
     4. none of the above.

_____ 84. Word-by-word reading is recognized by

     1. failure of the pupil to pause or take a breath at the proper place.
* 2. pupil pausing after each word, not allowing the words to flow as they would in a conversation.
     3. pupil re-reading words or phrases.
     4. pupil omitting certain words and/or phrases.

_____ 85. The levels of learning are

    1. independent.
    2. instructional.
    3. frustration.
* 4. all of the above.

_____ 86. One disadvantage of formal testing is

    1. the data is based on national population.
* 2. the frustration level may be high for disabled.
    3. they have been tested for validity and reliability.
    4. they compare individual scores to others.

_____ 87. The cloze technique consists of the student's ability to supply

    1. the missing syllable.
    2. the rhyming word.
    3. the correct spelling.
* 4. missing word by using the context as a clue.

APPENDIX I

EVALUATION

1. The purpose of this workshop was: (circle one)

   1   2   3   4   5   4.49
   unclear   clear

2. The manner in which the workshop was organized and conducted was:

   1   2   3   4   5   4.14
   poor   excellent

3. Indicate the extent to which this workshop topic will assist you in your teaching:

   1   2   3   4   5   3.75
   little   very much

4. The physical appearance of the DART module enhanced the learning experience.

   1   2   3   4   5   3.85
   not at   very much
   all

5. The module objectives were:

   1   2   3   4   5   4.23
   unimportant   important
   and   and
   irrelevant   relevant

6. For my students the suggested activities for use in my classroom:

   1   2   3   4   5   3.90
   are not   are suitable
   suitable

7. Other comments concerning any part of the DART Workshop: (use back of this sheet if necessary)

Typical comments from participants included the following:

("Best I have seen so far!")

("The informal, personal presentation was great.")

("The yellow pages are awful.")

("There were not enough suggested activities I
would use with my students.")

("I think the content in the DART module on
Diagnosis is excellent and will be of great
value to me in my teaching.")

("The activities for teaching vocabulary words
will be very helpful. I had great fun with
them.")

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