A study was conducted utilizing new adult Interstate Distributive Education Curriculum Consortium (IDECC) curriculum materials to evaluate through experimental research the effectiveness of IDECC's systematic teaching approach. The study was quasi-experimental involving two levels of treatment: (1) the adult IDECC teaching approach and (2) the postsecondary traditional teaching approach. Sixteen classes were randomly selected from a population of thirty volunteer sites. The IDECC approach utilized selected adult IDECC competency-based materials as their unit of instruction. The traditional instructors developed lesson plans as their instructional material within a workshop setting. Findings based on analysis of covariance by regression utilizing forty-eight sources of variance indicated that five sources of variance made a significant contribution: school, student educational level by student education level, student occupational experience by student occupational experience, teaching approach by student past participation in distributive education programs, and student age by student occupational experience. (Appended material includes a unit of instruction outline, objectives and resources utilized in the study, pretest and posttest questionnaires, and the IDECC instructor's material.) (LRA)
EXPERIMENTATION AND FURTHER VALIDATION OF THE IDECC
COMPETENCY BASED TEACHING APPROACH IN
ADULT EDUCATION

Terry M. Williams
Robert G. Berns

IDECC, Inc.
Columbus, Ohio

September 2, 1978

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Occupational and Adult Education
Division of Research and Demonstration
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CHAPTER 1
INTRODUCTION AND BACKGROUND OF THE STUDY

The Interstate Distributive Education Curriculum Consortium (IDEDC) is an organization of twenty-three states that develops competency-based curriculum materials for distributive education based upon tasks performed in over 100 occupations within the field of marketing and distribution. The basic system was developed in the early 1970's.

The original IDECC system consisted of 500 Learning Activity Packages (LAPs) based upon the 983 competencies identified in a study completed by Lucy Crawford (1967), "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education." Each LAP contained the following components:

1. Pretest
2. Objectives
3. Learning Activities
4. Handouts (learning resources)
5. Learning Manager's Guide
6. Pretest Key
7. Posttest
8. Posttest Key

Williams (1977) reported:

The Consortium adopted an evaluation model for the field testing of learning activity packets (Lucas et al., 1976, p. 2). Instruments were designed for measuring student achievement in all
competencies, and student/teacher attitudes toward the LAP method of instruction. Specifically, information was gathered regarding IDECC system use in terms of:
effectiveness, efficiency, adequacy of learning activities, LAP format, facility, congruence between objectives and test questions, availability of reading resources, educational-enfranchisement, a comparison of LAP instruction to traditional instruction, adequacy of objectives, time factors, clarity of directions, student interest level, and student/teacher attitudes toward LAPs. Analysis of the data revealed a high degree of success for the LAP method of instruction (Lucas et al., 1974, p. 2). The field-test study provided input for final revisions of the learning activity packets. (p. 3)

Although information concerning effectiveness of the LAPs and comparison of LAP instruction to traditional instruction was gathered through the field test process, experimentation was not involved.

In 1976, IDECC was awarded a grant under U.S.O.E. Part G to adapt the original IDECC system to the adult and other levels. The project, entitled Development and Validation of Competency-Based Instructional Systems for Adult, Post-Secondary, Special Needs, and Entrepreneurship Via the IDECC System, was completed in March, 1978.

This study was conducted to evaluate through experimental research the effectiveness of the adult IDECC systematic teaching approach. This study was intended to compare student achievement resulting from learning by the IDECC systematic teaching approach to the student achievement obtained by the traditional teaching approach.

Need and Purpose for the Study

In February, 1978, the IDECC executive committee adopted the following mission statement:

The role of IDECC is to develop and disseminate systematic approaches for planning, organizing, directing and evaluating distributive education curricula for specific occupations in marketing and distribution. Further, IDECC curricula will be competency-based—including materials for testing,
content documents, learning activities, behavioral objectives and related support materials.

In accordance with this mission and in order to provide the most effective competency-based materials for adult distributive education possible, a study was needed to determine the effectiveness of the newly-adapted IDECC system at the adult level. Do students enrolled in adult distributive education courses learn better by using the adult IDECC systematic approach? To answer this question, a comparison of achievement was made between the adult IDECC systematic approach and the traditional approach of instruction.

A thorough review of the literature, including mechanized information system searches through ERIC and Computerized Dissertation Abstracts, uncovered no research that compared instructional approaches in adult distributive education.

The purpose of this study was to provide information to IDECC, Inc. for use in improving future curriculum development and systematic procedures in the area of adult distributive education. Furthermore, this information will be of use in future efforts to improve adult learning activity packages, especially, the adult IDECC systematic approach of instruction.

Statement of the Problem

This study was designed to investigate the following primary research question: Does teaching approach, after controlling for school effect and selected student variables, contribute significantly to student achievement based on a measure of knowledge of employee training, evaluation, and motivation? If the answer to this question is yes, will there be a significant difference between the achievement of adult students who learn by the adult IDECC systematic teaching approach and
adult students who learn by the traditional teaching approach?

Furthermore, this study was designed to investigate the following secondary research questions:

1. What proportion of the variance of student achievement is accounted for by the following sources of variance?

   Variable $X_1$: Teaching Approach
   Variable $X_2$: Student Ability
   Variable $X_3$: Student Sex
   Variable $X_4$: Student Age
   Variable $X_5$: Student Educational Level
   Variable $X_6$: Student Occupational Experience
   Variable $X_7$: Student Previous Training in Employee Training, Evaluation, and Motivation
   Variable $X_8$: Student Supervisory and/or Managerial Experience
   Variable $X_9$: Student Employment Status
   Variable $X_{10}$: Type Student (preparatory or supplementary)
   Variable $X_{11}$: Past Participation in Distributive Education Programs
   Variable $X_{12}$: School
   Variable $X_2$ by $X_3$: Student Ability by Student Sex
   Variable $X_2$ by $X_4$: Student Ability by Student Age
   Variable $X_2$ by $X_5$: Student Ability by Student Educational Level
   Variable $X_2$ by $X_6$: Student Ability by Student Occupational Experience
   Variable $X_2$ by $X_2$: Student Ability by Student Ability
   Variable $X_4$ by $X_4$: Student Age by Student Age
   Variable $X_5$ by $X_5$: Educational Level by Student Educational Level
Variable $X_6$ by $X_6$: Student Occupational Experience by Student Occupational Experience

Variable $X_8$ by $X_8$: Student Supervisory and/or Managerial Experience by Student Supervisory and/or Managerial Experience

Variable $X_1$ by $X_2$: Teaching Approach by Student Ability

Variable $X_1$ by $X_3$: Teaching Approach by Student Sex

Variable $X_1$ by $X_4$: Teaching Approach by Student Age

Variable $X_1$ by $X_5$: Teaching Approach by Student Educational Level

Variable $X_1$ by $X_6$: Teaching Approach by Student Occupational Experience

Variable $X_1$ by $X_7$: Teaching Approach by Student Previous Training in Unit

Variable $X_1$ by $X_8$: Teaching Approach by Student Supervisory and/or Managerial Experience

Variable $X_1$ by $X_9$: Teaching Approach by Student Employment Status

Variable $X_1$ by $X_{10}$: Teaching Approach by Type Student (Supplementary or Preparatory)

Variable $X_1$ by $X_{11}$: Teaching Approach by Student Past Participation in Distributive Education Programs

Variable $X_2$ by $X_8$: Student Ability by Student-Supervisory and/or Managerial Experience

Variable $X_2$ by $X_9$: Student Ability by Student Employment Status

Variable $X_2$ by $X_{10}$: Student Ability by Type Student
Variable $X_3$ by $X_4$: Student Sex by Student Age
Variable $X_3$ by $X_6$: Student Sex by Student Occupational Experience
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Variable $X_6$ by $X_{10}$: Student Occupational Experience by Type Student
2. Which of the above variables contribute significantly to the achievement of adult students based on a measure of their knowledge of employee training, evaluation, and motivation?

Assumptions

Assumptions upon which this study were based are as follows:

1. The subjects were administered the study's instruments and answered them independently, without the aid of resources or classmates.

2. The subjects were provided either the experimental or traditional treatment as prescribed and explained to the instructors.

3. The student competency records were completed accurately by the instructors using the adult IDECC systematic approach.

4. The IDECC learning activity package pretests and posttests were valid and reliable.

Delimitations of the Study

This study involved two approaches to instruction, the IDECC systematic approach and the traditional approach. The IDECC system may be defined as the steps a student follows to learn the competencies determined as necessary to perform in a specified occupation. For purposes of this study, the IDECC system was delimited to exclude the process of identifying required competencies. The treatment only included the adult IDECC systematic approach of instruction used to teach the same ten competencies to all students in the experimental group. Competencies based upon individual career objectives were not determined but, rather, all experimental group students were involved in learning the same competencies.

Furthermore, even though the adult IDECC system at the time of the study had materials to develop 983 competencies, this study was delimited to the development of ten competencies.
The 983 competencies, upon which the adult IDECC system are based include competencies within the cognitive, affective, and psychomotor domains. This study involved only the cognitive domain. Competencies within the affective and psychomotor domains were not included.

The control group of this study received the instruction by use of the traditional approach. The scope of traditional teaching in adult distributive education that was to be considered as the control treatment was determined by the control group instructors. Traditional teaching was defined as an approach that uses the following methods and techniques to convey information to a group of students: lectures, discussion, case studies, handouts, visual presentations using transparencies, role playing, and exercises. Traditional teaching was considered as a highly structured approach that is narrow, specific, and time-oriented based upon the topic. Little or no testing is common and grading is based upon attendance by the student. The control treatment was delimited to the above definition.

Although adult distributive education courses include a wide range of subjects and types of organization, this study only used courses that normally provided instruction in the unit selected as the content to be taught.

Since the investigators were mostly interested in cognitive achievement of the students in terms of knowledge, student and instructor attitudes toward the instructional approach were not determined.

This study was not meant to be an evaluation of the entire adult IDECC system. It was a first attempt at determining the effectiveness of the adult IDECC systematic approach of instruction which involves the use of selected adult learning activity packages consisting of pretests.
objectives, learning activities, instructional materials, and posttests as a systematic procedure to assist adult students in learning competencies.

Limitations of the Study

Six limitations confronted this study. First, the population of the study was those adult distributive education classes which were available to the researchers. In other words, interested instructors volunteered to participate in the study. Random selection occurred from those classes taught by the volunteer instructors. Therefore, the findings can only be generalized to the volunteer classes from which the sample was drawn. The study was limited to the extent that the classes may not be representative of the population of adult distributive education classes.

Another limiting factor was that subjects were not randomly assigned to classes. However, the intact classes were randomly assigned to groups and treatments. Furthermore, based upon the independent variable of entry knowledge of subject matter included in the study, the classes were found to be homogeneous based on a pretest.

Third, even though the research study pretest and research study posttest were examined for content validity and even though the reliability of these two instruments was studied, the results of the study are limited to the degree to which the responses were accurate and truly reflected the knowledge of the content held by the respondents.

Fourth, the study is limited to the truthfulness of the instructors' and students' answers to the questions on the Instructor Questionnaire and Student Questionnaire, respectively.
Although the Quick Word Test has been studied for validity and reliability, this study was limited to the extent that the Quick Word Test accurately reflects the general mental ability of the subjects.

A final limitation of this study was that the results are valid only to the extent that the learning activity package pretests and posttests are valid and reliable instruments.
Definition of Terms

Adult IDECC System: the strategy and supportive documents and procedures developed for distributive educators nationally to initiate and maintain the IDECC instructional system in adult programs (Broadnax, et al., 1978).

Adult IDECC systematic approach: a procedure for developing a competency that entails the use of an adult Learning Activity Package. The student is administered a LAP pretest. If he/she passes the pretest, it is assumed that the student has that competency and does not continue the LAP. If not, the student does a learning activity, after which he/she completes a posttest. If successful, the student goes on to the next LAP. If not, another learning activity is attempted. This cycle is continued until the posttest is passed.

Cognitive domain: that area of learning which deals with student knowledge (as opposed to attitudes or skills). It is one of three learning domains into which LAPs objectives are categorized (Williams, et al., 1978).

Competency: a skill, knowledge, or attitude required for a person to perform a task.

Competency-based instruction: instruction based on actual competencies required for a specific occupation (as opposed to subject-matter based curriculum).

Human Subject Clearance: the procedure that assesses the role of the subject of a research study and determines whether provisions have been made for the protection of the subjects' rights and welfare.

IDECC: The Interstate Distributive Education Curriculum Consortium is an organization of 23 states that develops and disseminates systematic approaches for planning, organizing, directing, and evaluating distributive education curricula for specific occupations in marketing and distribution. IDECC curricula is competency-based and includes materials for testing, content documents, learning activities, behavioral objectives and related support materials.

Instructional materials: materials included in a Learning Activity Package that accompany a learning activity. These may include handouts, transparency masters, detailed instructions, self-checks, etc.

Instructor questionnaire: questions asked of the instructors in order to obtain demographic data for analysis purposes.

LAP posttest: provided in each LAP, the posttest is designed to measure the student's mastery of the given objective after he/she has completed appropriate learning activities.
LAP pretest: the pretest is intended to identify those students who have the adequate knowledge, attitude, or skill and do not, therefore, need to complete a learning activity(ies).

Learning activities: written or performance exercises which develop attitude, knowledge, and/or skill competencies.

Learning activity package or competency package: a collection of materials designed to provide training toward a career goal in a distributive occupation. Each individual LAP contains a pretest, objectives, learning activities, instructional materials, posttest, and test keys. These materials are designed to fulfill the objectives written from the competency statements.

Learning manager: the term refers to a new role for the traditional D.E. coordinator – that of an individual who organizes and coordinates learning experiences for the student. The role of instructor as a "disseminator of knowledge" is greatly reduced.

Objective: a specific statement which specifies the exact behavior or performance expected of a student.

Quick Word Test: a measure of verbal intelligence consisting of 100 multiple-choice vocabulary items developed by Edgar F. Borgatta and Raymond J. Corsini.

Reliability: if a test has reliability, it will measure the same set of objects repeatedly and get similar results (Kerlinger, 1973, p. 442).

Research Study Posttest: the collection of test items developed by the researchers that was administered to all students in the study in order to determine the achievement of the control and experimental groups.

Research Study Pretest: the collection of test items developed by the researchers that was administered to all students in the study in order to determine equivalence of the experimental and control groups.

Student Competency Record: a listing of the competencies used in the experimental treatment of the study, which includes space for the learning manager and/or student to indicate whether or not the student passed the LAP pretest and which learning activities were completed by the student.

Student Questionnaire: questions asked of the students in order to obtain demographic data for analysis purposes.

Traditional approach: the approach that uses the following methods and techniques to convey information to the group of students: lectures, discussion, case studies, handouts, visual presentations using transparencies, role playing, and exercises. This highly structured approach is narrow, specific, and time-oriented based upon the topic. In adult classes, little or no testing is common and grading is often based upon attendance by the student.
Traditional lesson plan: a plan developed by the instructors of the sites selected for the traditional approach that included the unit title, objective, introduction, method, learning activity, resources, and summary for the teaching of a topic or objective.

Unit of instruction: the content, or subject matter, used for the treatments of this study. One list of objectives was used for the experimental and control treatments. The title of the unit was, "Employee Training, Evaluation, and Motivation."

Validity: a test is considered valid if it measures what it is supposed to measure (i.e., the objectives).
CHAPTER 2

METHODS AND PROCEDURES

Definition of Treatment

The experimental study involved two levels of treatment: (a) the adult traditional teaching approach and (b) the adult IDECC systematic teaching approach. IDECC was the experimental group and traditional was the control group.

Adult IDECC Systematic Approach - Experimental Group

The adult IDECC systematic approach is a competency-based system of instruction based on a research study conducted by Lucy Crawford (1967) under a U.S.O.E. grant in 1967. The original IDECC system consisted of identified attitudes, knowledge and skill competencies for 69 occupations in seven occupational areas. The student selects a desired occupation, and develops the competencies required to reach the goal. The systematic teaching approach for developing these competencies provides a learning activity package which consists of a pretest, objectives for developing the competency, learning activities, handouts, and a posttest. The instructor becomes a learning manager as the students develop needed competencies at their own pace through the system shown in Figure 1.

Traditional Approach - Control Group

The traditional approach as defined by the traditional instructor participants of the study possesses the following characteristics:
SYSTEM FOR DEVELOPING A COMPETENCY

Figure 1. A flowchart of the IDECC systematic teaching approach.
(a) highly structured, (b) narrow, (c) specific, (d) time-oriented, (e) little or no testing, (f) grading based upon student attendance, (g) uses the following methods and techniques to convey information (instructional content) to a group of students: lectures, discussion, case studies, handouts, visual presentations using transparencies, role playing, and exercises (i.e., projects, reading assignments).

Selection of Content

The selection of the content for instruction in the study was based on the following procedures: (a) instructors of sites volunteering to be candidates for final selection were contacted to determine the courses which would be taught in those sites in the spring (see population and sample section for selection of sites), (b) sites which were teaching similar courses were placed in a pool, (c) an outline consisting of topics pertaining to employee training, evaluation, and motivation was devised based on similar courses such as personnel management, management, supervision, etc. (see Appendix A for outline); (d) the outline was sent to those sites which were placed in the pool and (e) sites which could teach the content in their course during the spring were identified as final candidates for random selection.

Development of Instructional Materials

IDECC instructional materials. The instructional materials for the experimental group were 10 competency packages which were adapted from the original IDECC system to the adult level in the area of employee training, evaluation, and motivation. The experimental group was to utilize the 10 learning activity packages while following the systematic
Teaching approach of the IDECC system (see Appendix B for reference information).

Traditional instructional materials. The traditional instructional materials for the unit "Employee Training, Evaluation, and Motivation," were developed by the instructors of the sites randomly assigned to utilize the traditional teaching approach. A workshop was held previous to the experiment for the traditional instructors. The unit outline, objectives, and resources were presented to the instructors for the development of the lesson plans for instruction of the unit. Objectives and resources were identical to those used by the adult IDECC experimental group (see Appendix C for objectives and resource list). Within the workshop structure, each instructor was responsible for a segment of the unit by developing a lesson plan. All the lesson plans were approved by a consensus of the instructors. Handouts, transparencies and case studies were identified and developed as supporting materials to the unit (see Appendix T for lesson plans and supporting materials).

Teaching Procedures

IDECC teaching procedures. The IDECC teaching procedures for the unit followed the adult IDECC systematic approach. Each student took the pretest before being exposed to an activity. The pretest determined the need for the student to develop the competency. If the student demonstrated the competency by passing the pretest, the student moved on to the pretest of the next competency and the same procedure followed. If the results of the pretest determined the need for the student to develop the competency, the student and/or instructor selected the learning activity and the student proceeded to develop the competency by completing a selected learning activity. Once the student had developed the competency
as determined by mastery of the posttest, the student moved to
the next competency and repeated the procedures. Each student maintained
a competency record which indicated: (a) pass or no pass on the pretest,
(b) activities completed if any, and (c) the time it took to complete
the required components of the package.

Traditional teaching procedures. The procedures for teaching the
traditional groups followed the definition of traditional teaching as
established by the instructors of the traditional sites (see the
section of this chapter entitled, Traditional Approach – Control Group).

As previously described, the instructors taught the unit utilizing
the same lesson plans which were developed in the workshop. The methods
used for presenting the lessons were those which were representative of
traditional teaching as defined by the instructors. Each traditional
instructor used the techniques for presenting the lesson which was
specified in the lesson plan.

Population and Sample

The population for this experimental study was identified by
contacting the state supervisor of distributive education for each of
the fifty states and requesting the recommendation of potential experimental
sites (see Appendix D for letter and reference form). Once these sites
were identified, letters were sent to 67 instructors explaining the
study and soliciting their possible participation (see Appendix 3 for
instructor letter and response form). Volunteer sites were then
contacted to determine the feasibility of implementing the proposed unit
of instruction into their course to be taught in the spring of 1978.
Thirty sites indicated they could implement the unit into their course of study and thus became the population for the study (see Appendix F for letter and response form to instructors who wished to participate in the study). Therefore, 16 sites were randomly selected from the 30 sites, with one class from each site involved in the study. These intact classes made up the original sample for the study. Once the sites were selected, the classes were assigned to groups one and two by randomly drawing eight sites for the first group and the remaining sites made up the second group. A flip of a coin determined which method of teaching would be assigned to group one. IDECC became group one and traditional was group two. The study is quasi-experimental with the student as the unit of analysis. It was necessary to utilize the student as the unit of analysis due to the low number of available sites. The design of the study explained later in this chapter accounts for the effect of the school on intact classes. The findings can be generalized only to the 30 sites from which the classes were randomly selected. Instructors were informed by mail as to the results of the random selection process (see Appendix G).

Fifteen of the randomly selected sixteen sites completed all requirements of the study. One site in the experimental group was unable to complete the study because of problems occurring at the site. The research study pretests, general mental ability tests, instructor's questionnaire, and student questionnaires were received by the researchers from this site. However, the research study posttests and student competency records were not received even though the site's instructor was contacted frequently in an attempt to receive the necessary materials from the site. This site was eliminated from the study based upon lack of response.
Development of Research Study Pretest and Posttest

Content of Study's Pretest and Posttest

The content of the research study pretest and posttest was based on the objectives from the 10 competencies for the unit, "Employee Training, Evaluation, and Motivation." Specifically, content was derived from the resources identified for both treatment groups. Therefore, 67 questions on the topic of employee training, evaluation, and motivation were developed in multiple choice format with three choices for each question (see Appendix H for master list of multiple choice test questions). A panel of distributive education curriculum specialists reviewed the questions for clarity. A panel of test construction experts reviewed the instruments for content validity and clarity. Based upon the review, revisions were made.

Research Study Pretest

Test questions were sorted according to objectives. Approximately equal number of questions were drawn for each objective resulting in a total of 34 multiple choice questions for the research study pretest. The purpose of the pretest was to determine if the experimental and control groups were equivalent in their previous knowledge of employee training, evaluation, and motivation (see Appendix I for pretest).

Research Study Posttest

Once the pretest was administered, each item on the pretest was analysed for discriminatory power. Those items showing the most discrimination were used in conjunction with the remaining test items in the original pool from which the pretest was drawn to make up a 34 item research study posttest (see Appendix J for posttest). Each posttest score was used as the dependent variable that is a measure of achievement.
in the student's knowledge of employee training, evaluation, and motivation.

**Development of Instructor and Student Questionnaires**

Questionnaires were developed to obtain demographic data on both the instructor and the students who were involved in the study. The variables identified through the questionnaire were used for descriptive purposes. In addition, the student variables were analyzed in relation to the posttest scores to determine which student variables contributed significantly to the posttest scores.

**Instructor Questionnaire**

The instructor questionnaire consisted of questions which allowed for description of the following variables (see Appendix K for instructor questionnaire):

1. Age
2. Educational level
3. Full-Time Employment
4. Years of Teaching Experience
5. Years of Occupational Experience
6. Major Area of Study
7. Years of Teaching Adult Courses

**Student Questionnaire**

The variables of interest for analysis pertaining to the students consisted of the following characteristics (see Appendix L for student questionnaire):
1. Sex
2. Age
3. Educational level
4. Years of Occupational Experience
5. Previous Training in the Area of Employee Training, Evaluation, and Motivation
6. Years of Supervisory and Management Experience
7. Employment Status
8. Type Student (Preparatory or Supplementary)
9. Past Participation in Distributive Education Programs

Development of Student Competency Records

Competency records were maintained by the experimental group instructors for each student involved in classes using the adult IDECC systematic approach. The competency record listed the ten competencies involved in the study. The instructor indicated if the student passed the pretest or which learning activities the student completed. Furthermore, space was provided for the instructor to note the time involved for the student to complete the competency package. (see Appendix M for competency record).

Selection of General Mental Ability Test

It was desired to determine the general mental ability of the students involved in the study in order to analyze the effect of the student's general mental ability on the posttest score.

A thorough review of the literature was conducted in order to find a general ability test appropriate for use in this study. The following criteria were used in the selection of an adequate ability test:
1. The test should be appropriate for use with adults and, especially, adult education students.
2. The test should have been checked for validity and reliability through previous research.
3. The test should be objective in nature.
4. The test should be relatively simple to administer.
5. The test should require little time to complete.

The general ability test selected was the "Quick Word Test," developed by Edgar F. Borgatta and Raymond J. Corsini (1964).

Appropriateness of the "Quick Word Test"

The literature concerning the "Quick Word Test" supported the use of this test for adults and in adult education. Grotelueschen and Knox (1967) suggested the use of the "Quick Word Test":

Mental ability is a relevant variable for research ... related to adults. For research purposes in which mental ability is a dependent variable, or for clinical descriptions of individuals, a valid, reliable, and comprehensive instrument such as the Wechsler Adult Intelligence Scale (WAIS) is appropriate. However, for many research and clinical purposes a more brief instrument for estimating adult mental ability is required, especially when circumstances render the administration of a more comprehensive scale impractical.

Educational psychologists generally agree that vocabulary level is the best single available estimate of adult mental ability. This is clearly substantiated by empirical evidence obtained from correlational and factor analytic studies. Normal studies (Doppelt & Wallace, 1955; Terman & Merrill, 1937; Wechsler, 1955) of existing individual scales of general intelligence have shown a high correlation between vocabulary and total test scores.

In general, the correlational and factor-analytic findings suggest that a vocabulary test would provide the best brief estimate of general intellectual functioning. (p. 169)

Gro telueschen and Knox (1967) then reported on a study conducted using the "Quick Word Test" that included an item analysis and comparison of
"Quick Word Test" scores and selected demographic characteristics of adults. Discussing that study, the researchers claimed that,

The results of the analysis of QWT scores of a sample of adults who participated in university evening-class programs indicate that the QWT is a very reliable and seemingly valid estimate of adult mental ability. Its use is recommended for situations in which the administration of more comprehensive scales would not be practical. (p. 175)

Grotelueschen and Lyons (1967) reported on a study conducted to provide information regarding the predictive validity of the 'Quick word Test,' based on a sample of adult men and women who were similar in characteristics to adults generally enrolled in continuing education programs, using the Wechsler Adult Intelligence Scale (WAIS) total IQ score as the criterion measure (p. 489). They concluded that, "the result, based on a sample of adults similar in characteristics to adults generally enrolled in continuing education programs, indicated that the QWT has promising validity in predicting general intellectual functioning" (p. 490).

The "Quick Word Test" has two basic forms, levels 1 and 2. Level 1 is appropriate for grades 7-12 and average adult groups, as indicated by F.E. Peacock Publishers, Inc., publisher of the "Quick Word Test" (Borgatta, 1978). Edgar F. Borgatta, one of the authors of the test, suggested that level 1 be used for this study, based upon the nature of the study and the subjects involved.

The level chosen was found to be quite appropriate for this study after the subjects' educational levels were determined. The class means of the students' completed educational levels ranged from high school tenth grade to college sophomore level. The median of the class means of the students completed educational levels was 12.83, between twelfth grade and college freshman year. This data indicated that level 1 of the "Quick Word Test" was appropriate for this study.
Validity and Reliability of the "Quick Word Test"

Validity of this instrument was established through a variety of investigations as reported in the **Quick Word Test Manual** (Borgatta and Corsini, 1964). Concurrent validity was determined by correlating scores with other widely used tests. Correlation coefficients for concurrent validity ranged from .72 to .84. Tables showing these relationships can be found in the **Quick Word Test Manual** (Borgatta and Corsini, 1964, p. 14).

Kuder-Richardson reliability for the level 1 "Quick Word Test" for grade 12 was found to be .91 (Borgatta and Corsini, 1964, p. 9). Furthermore, split-half reliability coefficients for grade 12 was .93 (Borgatta and Corsini, 1964, p. 15).

Objective and Administration of the "Quick Word Test"

The "Quick Word Test" consists of 100 multiple choice items, each of which has four alternatives. Students merely darken with a pencil the block by the selected answer directly on the test itself. Time for completing the test varies between ten and twenty minutes. No subjective questions are included. Scoring is done objectively with no judgments involved. Therefore, the "Quick Word Test" seemed to be objective in nature, relatively simple to administer, and required little time to complete.

Human Subject Clearance

Research conducted at the Ohio State University must be presented to a review committee which "assesses the role of the subject in the proposed activity and determines whether provisions have been made for the protection of the subjects' rights and welfare" ("A Digest of Human Subject Program Guidelines," The Ohio State University).
The policies of the university in regard to research, development, and related activities involving human subjects adhere to the following:

a. Participation on the part of the human subject must be voluntary and information which gained the subject's consent must be appropriate. Subjects are not obligated to participate in cases where educational experiences are encountered such as in a course of study and that appropriate alternatives will be provided in place of the experimental experience.

b. The risks must be acceptable in relation to the knowledge gained as a result of participation.

c. A qualified person must supervise the research and training activities which involve human subjects.

d. All research involving human subjects must receive prior approval of a committee. Research continuing past a year is subject to review.

A summary sheet required by the human subjects committee was completed and submitted for their review.

Instructors were directed to solicit student participation on a volunteer basis and were further instructed to orient the students on the conditions of the study through oral communications via a handout describing the purpose, confidentiality, testing and questionnaire techniques, and volunteer participation of the study.

Each subject and instructor signed a participation consent form which were filed with IDECC, Inc. It should be noted that no subject elected to withdraw from the study.

The human subjects committee approved the proposed research with the following conditions:

a. If the students are graded, they should be graded in comparison to other students in their same learning group or condition rather than in comparison to students in other learning groups or conditions.
b. The information that will be given by the teachers at the onset of the study must be submitted to the human subjects committee for review.

c. Other provisions must be made for students deciding not to participate or to transfer to another section if they so choose.

Once the committee was assured the above conditions would be met, approval was given to proceed with the study (see Appendix N for human subjects approval and related materials).

**Instructor Training**

Two workshops were held to orient and prepare the 16 instructors to participate in the experimental study (see Appendix O for IDECC and traditional workshop agenda). Each workshop, IDECC and traditional, consisted of eight instructors and was held separately for three days within a two week span of time. Each workshop was based on specific objectives according to the teaching approach to be utilized and the following objectives which were common to both the IDECC group and the traditional group:

a. To develop a knowledge of the purpose of the experimental study.

b. To provide inservice on the mechanics of the study.

c. To become acquainted with the resources to be used.

Once common objectives were realized in each of the workshops, the content branched off to reach the objectives which were characteristic for each of the instructional approaches.

**IDECC Instructor Training Objectives**

Workshop objectives which were unique for the IDECC instructors were:

a. To develop the knowledge, attitude and skill competencies in order to utilize the IDECC system.
b. To become acquainted with the IDECC materials and resources to be utilized in the study.

c. To determine management techniques to be used for implementation of the competencies identified for the study.

d. To develop the knowledge and skill necessary for student orientation for IDECC.

e. To develop the knowledge and skill of maintaining student competency records.

The IDECC instructors completed a competency package entitled, "Orientation to IDECC" (see Appendix P). In order to familiarize the instructors with the competency packages to be used in the study, each instructor was asked to read each package and complete the assignment sheet in Appendix Q individually. After this assignment was completed, the group reconvened and each instructor led a discussion on one or two competency packages. This discussion led into a presentation of management techniques and implementation strategies. Transparency masters were then passed out to each instructor for use in orienting their students to IDECC (see Appendix R).

Traditional Instructor Training Objectives

Again there were objectives which were characteristic to the traditional group alone. The additional objectives which were reached in the traditional workshop were:

a. To define traditional teaching.

b. To develop learning activities to teach the objectives.

c. To develop lesson plans involving the learning activities.

Within the workshop structure, the traditional group of instructors came to a general consensus of the traditional teaching as defined in the beginning of Chapter 2. A unit outline on employee training, evaluation, and motivation and the same objectives and resources given to the IDECC group were also given to the traditional group (see
Appendix C). Based on these objectives and resources the group developed lesson plans to teach the unit. Each instructor was responsible for a segment of the unit (see Appendix S for Instructor Assignment Sheet) and developed the lesson plans with an agreement of the other instructors for the presentation of the lesson. Handouts, transparencies, and case studies were identified and developed as supporting materials to the unit (see Appendix T for lesson plans and supporting materials).

Procedures of the Experimental Study

Each instructor for both methods of teaching, was expected to fulfill certain steps in order to proceed with the experimental study. Those steps were as outlined:

a. Orient students
b. Obtain student signature on the human subjects consent form
c. Assign student numbers
d. Administer student questionnaire
e. Administer ability test
f. Administer research study pretest
g. Mail to the researchers items (b) through (f) by registered mail
h. Teach units
i. Administer research study posttest
j. Mail to the researchers posttests answer sheets, and student competency records by registered mail

Close of Workshops

Upon completion of the workshops, instructors returned to their school to implement the instruction to which they were assigned.

Each instructor returned to their sites with lesson plans or
competency packages, resources, and a guide for conducting the experiment (see Appendix U for guides).

Constant correspondence was maintained in order to keep open communication between the sites and the researchers.

**Collection of Data**

The data were collected on site by the instructor and then mailed to the research office. Records were kept by the investigators on all incoming data.

**Mailing Procedures**

Ability tests, research study pretests and answer sheets, student questionnaires, and human subject consent forms were completed and returned to the research office by registered mail at the onset of the study. Upon completion of the unit, research study posttests, and answer sheets were mailed to the sites, administered by the instructors, and returned to the researchers for compilation and analysis. Student competency records were returned with the posttest answer sheets by the instructors using the adult IDECC systematic approach.

**Maintenance of Records.**

Complete records were maintained by the investigators for all materials mailed to the research office.

Files for each site were kept which included all correspondence, human subject's clearance forms for subjects and instructors, completed questionnaires for both students and instructors, pretest and posttest answer sheets, and ability test answer sheets.

Records were maintained for each site which contained pretest, posttest and ability test scores, coded student variables and coded
instructor variables. In addition, a master competency record was kept on all students who were involved in the IDECC group. The master competency record provides information for each student on the number of pretests passed and the activities completed.

Treatment of the Data

Scoring the research study pretests and posttests

All research study pretests and posttests were administered to the students by their instructors and mailed to the instructors to the researchers. The tests were machine-scored at the Ohio State University Office of Testing and Evaluation. Spot checks were performed to assure accuracy of the machine scoring process. Computerized item analyses were run on the research study pretests and posttests.

The research study pretests were analyzed to determine if the classes using the adult IDECC systematic teaching approach had students with a similar level of knowledge toward the content of the unit of instruction as the classes using the traditional approach. Kuder-Richardson 20 reliability estimates of .829 for the IDECC group and .763 for the traditional group were determined for the pretest instruments. The research study posttests were also analyzed and revealed Kuder-Richardson 20 reliability estimates of .804 for the IDECC group and .735 for the traditional group.

Scoring Quick Word Tests

All Quick Word Tests were administered to the subjects by their instructors and returned by mail to the researchers. The Quick Word Tests were scored by the researchers and checked for accuracy.
The Quick Word Test was used in order to gain insight into the general mental ability of the subjects, so that the covariance in posttest scores due to ability could be determined. Spot checks were performed to assure accuracy of the scoring process.

**Coding demographic data**

Levels of the demographic variables were coded numerically for analysis. Data acquired from the instructors and students were coded and recorded on a form from which the computer data cards were key punched.

**Key Punching**

The following items were key punched onto a data card for each student:

- class identification number
- instructional mode
- research study posttest student score
- "Quick Word Test" student score
- student sex - male or female
- student age - number of years
- student educational level - number of years
- student occupational experience - number of years
- student previous training in employee training, evaluation, and motivation - yes or no
- student supervisory and/or managerial experience - number of years
- student employment status - employed or not employed
- type student - preparatory or supplementary
- student past participation in Distributive Education programs - yes or no
Analysis of Data

Condescriptive statistics were derived by utilizing the Statistical Package for the Social Sciences. These statistics were used to explain the students and instructor variables (Nie, et al., 1970, p. 185).

A general linear model procedure from the Statistical Analysis System was utilized to analyze the data (Barr, Goodnight, Sall, and Helwig, 1976). The general linear model procedure was first utilized with a full model design to determine the proportion of the total variance of the dependent variable score accounted for by 48 sources of variance as identified in Chapter 1. Specifically, each source of variance while controlling for all other independent variables was entered last in the general linear model. This analysis of covariance by regression identified the partial sum of squares which could be attributed to each source of variance. Therefore, variance due to main effects, interactions, and squared terms were tested for their collective and separate statistical significance based on their contribution to the variation of the dependent variable.

Further analysis of the data utilized a restricted model design based on the outcome of the full model design analysis. The purpose of using the restricted model design analysis was to analyze the independent variables which contributed the most to the variance of the dependent variable. The restricted model procedure allowed the investigators to analyze the separate statistically significant contribution of independent variables to the variation of the dependent variable.
CHAPTER 3

ANALYSIS AND INTERPRETATION OF THE DATA

The purpose of this chapter is to analyze and interpret the data collected during the investigation of the following primary research question:

Does teaching approach after controlling for school effect and selected student variables contribute significantly to student achievement based on a measure of knowledge of employee training, evaluation, and motivation?

If the answer to this question is yes, will there be a significant difference between the achievement of adult students who learn by the IDECC adult systematic teaching approach and adult students who learn by the traditional teaching approach.

In addition, this study was designed to investigate the secondary research questions:

1. What proportion of the variance of student achievement is accounted for by the sources of variance identified in Chapter 1?

2. Which of the identified sources of variance contribute significantly to the achievement of adult students based on a measure of their knowledge of employee training, evaluation, and motivation?

In order to investigate these questions, a quasi-experimental study was conducted utilizing 16 adult classrooms. The 16 classrooms were
divided into two groups: (1) the experimental group utilizing the adult IDECC systematic teaching approach and (2) the control group utilizing the traditional teaching approach.

Each group of instructors, IDECC and traditional, attended a three day workshop for inservice in regard to the procedures for the study and the teaching approach to be utilized within each group.

Previous to the treatment, students in both groups were tested for ability and prior knowledge of "Employee Training, Evaluation, and Motivation."

**Research Study Pretest**

The research study pretest was designed to provide information concerning the students' knowledge of employee training, evaluation, and motivation prior to the treatment. The results of the research study pretest were used to compare those students in classes taught using the traditional approach and students in classes taught using the adult IDECC systematic approach to determine whether or not a difference existed between the traditional and IDECC groups in relation to prior knowledge of the content of the unit of instruction.

Data in Table 1 indicates that the mean of the research study pretest scores of the IDECC group, 25.14, was close to the mean of the traditional group, 24.75. Furthermore, the amount of dispersion of the scores within the IDECC group and the amount of dispersion of the scores within the traditional group, as revealed by the standard deviations, were also similar (5.51 and 4.89, respectively).

Using a t-test to determine whether or not the difference between the research study pretest means was significant, no significant difference was found, \( t(179) = .493; p > .05 \). Therefore, the conclusion
was reached that the students in classes taught using the adult IDECC approach had approximately the same knowledge of the content of the unit of instruction prior to the treatment as the students in classes taught using the traditional approach. In other words, no significant difference existed between the IDECC and traditional groups in relation to prior knowledge of the content of the unit of instruction.

Description of the Sample

Questionnaires, as described in Chapter 2, were developed to obtain the demographic data in relation to the variables of interest for both the student and the instructor with the exception of the student general mental ability. The ability was derived by utilizing the Corsini and Borgatta "Quick Word Test."

Student Variables

General mental ability. The "Quick Word Test" was used as a medium for estimating the general mental ability of the students. The test consists of 100 multiple choice items, each of which has four alternatives. The score indicating that the student answered all 100 items correctly would be 100. The score reflecting no correct items would be 0. The "Quick Word Test" was administered to all students in the study.

The class means and standard deviations of the "Quick Word Test" scores are shown in Table 2. The highest class mean of all the classes in the study was 31.571 (class eight of the traditional group). The same class had the lowest standard deviation of all classes in the study (9.343) and the least number of students in the class (seven). Thus, in comparison to the other classes in the study, this class (traditional
Table 1
Means, Medians, Modes, and Standard Deviations of Student Scores on the Research Study Pretest by Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Pretest</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>mean</td>
<td>median</td>
<td>mode</td>
<td>SD</td>
</tr>
<tr>
<td>IDECC</td>
<td>80</td>
<td>25.14</td>
<td>26</td>
<td>27</td>
<td>5.51</td>
</tr>
<tr>
<td>Traditional</td>
<td>99</td>
<td>24.75</td>
<td>26</td>
<td>27</td>
<td>4.39</td>
</tr>
</tbody>
</table>
class eight) appears to have had few students, most of whom had high general mental ability.

Data in Table 2 indicate that the lowest class mean in the traditional group was 43.000 (class seven). This mean was considerably lower than the other class means of the traditional group. The next lowest class mean of the traditional group was 68.118 (class one).

The highest class mean of the IDECC group was 79.444 (class five). Class seven had the lowest class mean of the IDECC group, 38.154, which was also the lowest class mean of the study. The same class had the second to the lowest standard deviation of the study, 9.441, which was the lowest standard deviation of the IDECC group. This data indicate that IDECC class seven had students with mostly low general mental ability.

Also having a low class mean as compared to the other class means of the IDECC group was IDECC class four, which was 58.769. IDECC class four had the highest standard deviation of the IDECC group, 15.706, indicating that IDECC class four had students with varying general mental ability.

Student sex. One means of describing the sample was to collect information regarding the sex of the students in the study from the completed student questionnaires.

As shown in Table 3 traditional classes 4, 5, and 6 had relatively similar numbers of males and female students. Traditional classes 1 and 3 had predominantly male students while traditional classes 2, 7, and 8 had predominantly female students. IDECC classes 5 and 6 had approximately the same number of male and female students. IDECC class 4 had all male students. IDECC classes 1, 2, 3, and 7 had predominately female students.
Table 2
Numbers, Means, and Standard Deviations of Student General Mental Ability Scores by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>&quot;Quick Word Test&quot; Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>IDECC</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>9</td>
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<tr>
<td></td>
<td>4</td>
<td>13</td>
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</tr>
<tr>
<td></td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Total IDECC</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td></td>
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<td>17</td>
</tr>
<tr>
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<td>17</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Traditional</td>
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<td>12</td>
</tr>
<tr>
<td></td>
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<td>9</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Total Traditional</td>
<td></td>
<td>99</td>
</tr>
</tbody>
</table>
Overall, the IDECC group had 55.0% males and 45.0% females. The traditional group had 53.6% males and 50.1% females. These percentages show little differences in the number of males and females between the two groups.

**Student age.** The review of the literature indicated that students enrolled in adult distributive education classes tended to range from 16 years of age to beyond 65 years of age. This led the investigators to question whether or not student age might be influencing the learning taking place in the classes of the study. Therefore, student ages were determined by asking the students to mark on the student questionnaire the age interval in which their age fell.

Data in Table 4 indicate that the class means of student ages of the traditional group were mostly in the thirties and low forties. However, traditional class 7 had a mean age of 22 with the lowest standard deviation of the classes in the traditional group (SD = 6.325). Thus students in class 7 had students whose ages were close to 22. Traditional class 3 had a class mean of 26.429.

The IDECC group had student age class means in the thirties with three exceptions. IDECC class 5 had a class mean of 40.000, IDECC class 6 had a class mean of 26.667, and IDECC class 7 had a class mean of 22.308. IDECC class 7 had the lowest class mean of 22.308 and a comparatively low standard deviation as compared to the other IDECC class standard deviations (SD = 5.633), indicating little difference among students in IDECC class 7 in relation to student age. Therefore, both the traditional group and IDECC group had one student age class mean that was
Table 3

Numbers and Percentages of Male and Female Students
by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Student Sex</th>
<th>n</th>
<th>% Males</th>
<th>% Females</th>
</tr>
</thead>
<tbody>
<tr>
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<td>82.4</td>
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<td>14.3</td>
<td>85.7</td>
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<td></td>
<td></td>
<td>97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Males

Females
comparatively low, each of which had a comparatively low standard deviation. That is, traditional class 7 had a class mean of 22.000 with a standard deviation of 6.325 and IDECC class 7 had a class mean of 22.308 with a standard deviation of 5.633.

The ages of the IDECC and traditional groups were very close with means of 32.282 and 32.990, respectively.

**Student educational level.** The literature indicated that the educational level completed by adult distributive education students varies considerably. An adult distributive education class may be composed of predominantly high school dropouts or it may be comprised of mostly college graduates. In order to determine the completed educational level of the students participating in this study, students were asked to indicate their completed educational level on the student questionnaire.

Data in Table 5 show that the range of class means of student completed educational level of the traditional group was larger than the range of class means of student completed educational level of the IDECC group. The highest class mean of the traditional group was 14.714 and the lowest class mean of the traditional group was 10.900, meaning that the class mean of one of the traditional group classes (class 3) was between the sophomore and junior years of college while the class mean of one of the traditional group classes (class 7) was lower than the junior year of high school. However, the IDECC class means were closer and, thus, had a lower range. The highest class mean of the IDECC group was just above the sophomore year of college (classes 3 and 5) while the lowest class mean of the IDECC group was higher than the senior year of high school and almost the freshman year of college (classes 4 and 7).
Table 4
Numbers, Means, and Standard Deviations of Student Ages by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Student Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>IDECC</td>
<td>1</td>
<td>10</td>
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<td>Total</td>
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</tr>
<tr>
<td>Traditional</td>
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<tr>
<td></td>
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<td>17</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14</td>
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<td>10</td>
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<tr>
<td></td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>99</td>
</tr>
</tbody>
</table>
The means for educational level based on the total cases for each of the groups were 13.175, IDECC, and 12.582, traditional, which resulted in a difference of .593. This mean difference indicated that there was very little difference in the actual number of school years completed between the two groups.

**Student occupational experience.** The investigators were concerned that the variance in the number of years of occupational experience the students in the study had might influence the amount of learning taking place. Therefore, information concerning the number of years of occupational experience of the students was gathered from the completed student questionnaires.

As shown in Table 6, the range of the class means of the student years of occupational experience was quite high for both the traditional and IDECC groups. Traditional class 8 had a class mean of 13.714 while traditional class 7 had a class mean of 0.900. This range (17.814) reflects the large range in the number of years of occupational experience the students in the study had. The highest class mean of the IDECC group was 11.556 (class 3) while the lowest class mean of the IDECC group was 0.000 (class 7). This range (11.556), although lower than the traditional group range, reflects the differences among the classes in relation to students' occupational experience.

Although the overall means of the IDECC and traditional groups varied somewhat with the IDECC mean being 4.950 and the traditional mean being 7.740, the wide range of class means in both groups indicated that each group consisted of students with a large variance in relation to years of occupational experience.
Table 5
Numbers, Means, and Standard Deviations of Student Educational Levels by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>n</td>
<td>Mean</td>
<td>SD</td>
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</tr>
<tr>
<td>IDECC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>13.300</td>
<td>1.767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>12.929</td>
<td>1.639</td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>9</td>
<td>14.111</td>
<td>2.571</td>
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<tr>
<td>4</td>
<td>13</td>
<td>12.769</td>
<td>1.235</td>
<td></td>
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<tr>
<td>5</td>
<td>9</td>
<td>14.111</td>
<td>2.088</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>12</td>
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<td>1.528</td>
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<td>12.769</td>
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<tr>
<td>Traditional</td>
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<td></td>
</tr>
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<td>1.111</td>
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<td>1.826</td>
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<td>11.889</td>
<td>1.537</td>
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</tr>
<tr>
<td>6</td>
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<td>13.231</td>
<td>1.787</td>
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</tr>
<tr>
<td>7</td>
<td>10</td>
<td>10.900</td>
<td>0.316</td>
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</tr>
<tr>
<td>8</td>
<td>7</td>
<td>14.714</td>
<td>0.951</td>
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<td></td>
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<tr>
<td>Total</td>
<td>98</td>
<td>12.582</td>
<td>1.630</td>
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Table 6
Numbers, Means and Standard Deviations of
Student Years of Occupational Experience by Class and Teaching Approaches

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<th>Teaching Approach</th>
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<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
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<td>2.601</td>
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<td>3.490</td>
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<tr>
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<td>3</td>
<td>9</td>
<td>11.556</td>
<td>10.163</td>
</tr>
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<td>4</td>
<td>13</td>
<td>5.154</td>
<td>6.805</td>
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<td>9</td>
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<td>6.766</td>
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<td>12</td>
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<td>1.749</td>
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<td>7</td>
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<td>4.950</td>
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<td>4.923</td>
<td>10.920</td>
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<td>7</td>
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<td>1.595</td>
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<td>8</td>
<td>7</td>
<td>18.714</td>
<td>8.712</td>
</tr>
<tr>
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<td>96</td>
<td>7.740</td>
<td>9.335</td>
</tr>
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</table>
Since some students participating in this study may have had previous education or training in the content of the unit of instruction, employee training, evaluation, and motivation, that might have influenced their posttest scores, a question was asked on the student questionnaire to find out whether or not a student had had such previous training.

As indicated in Table 7, most classes in the study were composed of students with no previous training in the content of the unit of instruction. One traditional class (class 8) had a class percentage of students with previous training in the unit of instruction of 71.4%, indicating that many students in that class (71.4%) had had previous training in the unit. Traditional class 4 was comprised of students, 36.4 percent of whom had had previous training in the unit. Fifty percent of the students in IDECC class 2 had had previous training in the unit and 46.2 percent of the students in IDECC class 4 had had previous training in the unit. Of the remaining classes in the study, the percentage of students with previous training in the unit was 30 or less.

The overall percentage of the IDECC students' previous training in the unit, 24.1%, was very close to the overall percentage of the traditional students' previous training in the unit, 23.5%. Therefore, little difference existed between the IDECC and traditional groups in relation to students' previous training in the unit.

Student supervisory and/or managerial experience. Since the literature indicates that adult distributive education students have varied backgrounds and experiences, and since the unit of instruction of this
Table 7

Numbers and Percentage of Students with and Without Previous Training in Employee Training, Evaluation and Motivation by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>% With Previous Trng.</th>
<th>% Without Previous Trng.</th>
</tr>
</thead>
<tbody>
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<td>70.0</td>
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<td>50.0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>22.2</td>
<td>77.8</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>46.2</td>
<td>53.8</td>
</tr>
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<td>5</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8.3</td>
<td>91.7</td>
</tr>
<tr>
<td>Total</td>
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<td>24.1</td>
<td>75.9</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td>17.6</td>
<td>82.4</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td>Traditional</td>
<td>4</td>
<td>36.4</td>
<td>63.6</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>11.1</td>
<td>88.9</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>15.4</td>
<td>84.6</td>
</tr>
<tr>
<td></td>
<td>7</td>
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<td>90.0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>7.4</td>
<td>92.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>23.5</td>
<td>76.5</td>
</tr>
</tbody>
</table>
study was based on supervision and management, the students' experience in supervision and management was of interest. Data were collected from the student questionnaires concerning the number of years of supervisory and/or management experience a student had had at the time the student questionnaire was completed by the student.

Data in Table 8 show that the highest class mean of the traditional group was 7.857 (class eight) which means that class eight students averaged slightly less than eight years of supervisory and/or managerial experience. The number of students in traditional class eight was the smallest number of students of any traditional class (n = 7). Also, the standard deviation was large in comparison to the other standard deviations of the traditional classes (SD = 7.193). Therefore, class eight had comparatively few students who had varied numbers of years of supervisory and/or managerial experience.

Two classes in the traditional group had relatively low class means in relation to the other classes in the traditional group. Classes three and seven each had a class mean of .500, which means that on the average, the students in those classes had one-half year of supervisory and/or management experience. Furthermore, the students in these classes did not vary much in relation to years of supervisory and/or managerial experience since the standard deviation of class three was .941 and the standard deviation of class seven was 1.531.

The highest class mean of the IDECC group was 8.231 (class four) which means that students in class four averaged slightly over eight years of supervisory and/or managerial experience. However, the students in class four varied considerably in relation to the number of years of
supervisory and/or managerial experience since the standard deviation of that class was 10.158, the highest, by far, of the IDECC group standard deviations for this variable.

Two classes in the IDECC group had relatively low class means in relation to the other classes in the IDECC group. Class seven had no students with any supervisory and/or managerial experience. Class six had a class mean of .667, which means that on the average, the students in that class had slightly over one-half year of supervisory and/or managerial experience. Furthermore, the standard deviation of that class was relatively low in relation to the other standard deviations of the IDECC group classes (SD = 1.231).

The overall mean of the IDECC students' years of supervisory and/or managerial experience was 2.595 which was close to the overall mean of the traditional students' years of supervisory and/or managerial experience, which was 3.135. Therefore, little difference existed between the IDECC and traditional group in relation to student years of supervisory and/or managerial experience.

Employment status of the students. A factor which the researchers felt might influence the student's learning of the content of the unit of instruction was the employment status of the student. Was the student employed at the time the student was exposed to the instruction? The student questionnaire included an item asking for this information.

As shown by the data in Table 9, traditional classes one, two, and eight and IDECC classes one, two, three, and six were composed of students all of whom were employed at the time they completed the student questionnaire. Questionnaires were completed at the beginning of the class involvement in this study.
Table 8
Numbers, Means, and Standard Deviations of Student Years of Supervisory and/or Managerial Experience by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Student Supervisory and/or Managerial Experience</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
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<td>2.271</td>
</tr>
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<td>2</td>
<td></td>
<td>14</td>
<td>1.857</td>
<td>2.507</td>
</tr>
<tr>
<td></td>
<td>3</td>
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<td>5.994</td>
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<td>1.581</td>
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<td>8</td>
<td></td>
<td>7</td>
<td>7.857</td>
<td>7.198</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>96</td>
<td>3.135</td>
<td>5.326</td>
</tr>
</tbody>
</table>
The majority of the students in all but two classes participating in this study were employed at the time of the study. Slightly under half of the students in traditional classes three and seven were employed (traditional class three percentage of employed students = 42.9, traditional class seven percentage of employed students = 40.0).

The overall percentage of students employed in the IDECC group (93.8%) was larger than the overall percentage of students employed in the traditional group (78.9%). Thus, the IDECC and traditional group were comprised of mostly employed students although the traditional group had fewer students employed as compared to the IDECC group.

Type of student (preparatory or supplementary). Students in adult distributive education classes are enrolled for two basic reasons, preparatory instruction or supplementary instruction. U.S.O.E. (1976) defined adult preparatory (part-time study) as, "a program designed to provide training for persons who have already entered the labor market or are unemployed but need retraining in preparing for a new occupation" (p. 61). Adult supplementary (part-time study) was defined as, "a program designed to provide training for persons who have already entered the labor market and need training to be updated or upgraded to achieve stability or advancement in their current employment" (U.S.O.E., 1976 p. 61). Based upon these definitions and the information collected from the student background questionnaire, each student was classified as either preparatory or supplementary.

Data in Table 10 show that two classes in the traditional group and two classes in the IDECC group were composed entirely of supplementary students (traditional classes 1 and 8 and IDECC classes 1 and 3). The following classes had a majority of supplementary students, although not 100% supplementary students: traditional class 2 (percentage of
Table 9

Numbers and Percentages of Students Employed and Not Employed

At the Time of the Study by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Student Employment Status</th>
<th>%</th>
<th>% Not Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Employed</td>
<td></td>
</tr>
<tr>
<td>IDECC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
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<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>92.3</td>
<td>7.7</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>77.8</td>
<td>22.2</td>
</tr>
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<td>6</td>
<td>12</td>
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<td>80</td>
<td>93.8</td>
<td>6.2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>91.7</td>
<td>8.3</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>77.8</td>
<td>22.2</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>69.2</td>
<td>30.8</td>
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<tr>
<td>7</td>
<td>10</td>
<td>40.0</td>
<td>60.0</td>
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<tr>
<td>8</td>
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</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>78.9</td>
<td>21.1</td>
</tr>
</tbody>
</table>
supplementary students = 94.1), traditional class 4 (percentage of supplementary students = 83.3), traditional class 5 (percentage of supplementary students = 77.8), IDECC class 2 (percentage of supplementary students = 92.9), IDECC class 4 (percentage of supplementary students = 69.2), IDECC class 6 (percentage of supplementary students = 66.7), and IDECC class 7 (percentage of supplementary students = 92.3). Two classes in the traditional group and one class in the IDECC group were comprised of a majority of preparatory students (traditional classes 3 and 6 and IDECC class 5). Traditional class 1 was composed of entirely preparatory students.

The percentage of preparatory students in the IDECC group was 18.7 and the percentage of preparatory students in the traditional group was 36.4.

**Student past participation in distributive education programs.** The literature indicated that students enrolled in adult distributive education classes may have had past experience in distributive education programs or may not have had such experience. In order to determine whether or not a student had been enrolled in other distributive education programs prior to participation in this study, a question was included on the student questionnaire requesting such information.

Data in Table 11 indicate that most classes in the study were composed of students without prior participation in distributive education programs. Traditional class 5 and IDECC classes 1, 3, 5, and 6 had no students with prior participation in distributive education programs. Traditional classes 1, 2, 3, 4, 6, and 7 and IDECC classes 2 and 4 were comprised of students, less than 25% of whom had participated in distributive education programs prior to participation in this study.
Table 10

Numbers and Percentages of Preparatory and Supplementary Students by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Type Student (Preparatory or Supplementary)</th>
<th>N</th>
<th>% Preparatory Students</th>
<th>% Supplementary Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDECC</td>
<td>1</td>
<td></td>
<td>10</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>14</td>
<td>7.1</td>
<td>92.9</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>9</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td>13</td>
<td>30.8</td>
<td>69.2</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>9</td>
<td>55.6</td>
<td>44.4</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td>12</td>
<td>33.3</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td>13</td>
<td>7.7</td>
<td>92.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>50</td>
<td>18.7</td>
<td>81.3</td>
</tr>
<tr>
<td>Traditional</td>
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<td>17</td>
<td>5.9</td>
<td>94.1</td>
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<td>14</td>
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<td>28.6</td>
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<td>4</td>
<td></td>
<td>12</td>
<td>16.7</td>
<td>83.3</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td>9</td>
<td>22.2</td>
<td>77.8</td>
</tr>
<tr>
<td></td>
<td>6</td>
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<td>84.6</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td>10</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
<td>7</td>
<td>0.0</td>
<td>100.0</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>99</td>
<td>36.4</td>
<td>63.6</td>
</tr>
</tbody>
</table>
Furthermore, although traditional classes 1, 2, 3, 4, 6, and 7 and IDECC classes 2 and 4 had some students with prior participation in distributive education programs, each class was composed of less than 25% students with prior participation in distributive education programs.

Two classes were exceptions to the above finding. Traditional class seven had all students with prior participation in distributive education programs and IDECC class seven had 84.6% with prior participation.

The percentage of students with previous experience in Distributive Education programs in the IDECC group (17.5%) was close to the percentage of students with previous experience in Distributive Education programs in the traditional group (20.2%). Thus, each group was composed of appropriately the same percentage of students who had previously participated in Distributive Education programs.

Instructor Variables

Instructor age. Instructor age was reported by the midpoint of a given age interval for each of the instructors in the experimental study sites. Instructors were given eight categories from which to identify their age.

Data in Table 12 show the number of instructors falling within a certain age interval, the percentage of frequency and the cumulative percentage.

The ages of the instructors in the IDECC group ranged from the 23-27 interval to the 48-52 interval. Two IDECC instructors marked their ages being in the 28-32 category, two in the 43-47 interval, and two in the 48-52 interval. The ages of the instructors in the traditional group
Table 11

Numbers and Percentages of Students Previously Participating and Not Previously Participating in Distributive Education Programs by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Student Past Participation in D.E.</th>
<th>%Previously Participating</th>
<th>% Not Previously Participating</th>
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</thead>
<tbody>
<tr>
<td>IDECC</td>
<td></td>
<td>n</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Traditional</td>
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<td>10</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>7.7</td>
<td>92.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
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<td></td>
<td>12</td>
<td>0.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>84.6</td>
<td>17.5</td>
<td>82.5</td>
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<td>Total IDECC</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>17</td>
<td>5.9</td>
<td>94.1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17</td>
<td>23.5</td>
<td>76.5</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>12</td>
<td>8.3</td>
<td>91.7</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>9</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>13</td>
<td>7.7</td>
<td>92.3</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>10</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td>Total Traditional</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>17</td>
<td>5.9</td>
<td>94.1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17</td>
<td>23.5</td>
<td>76.5</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>4</td>
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<td></td>
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<td>9</td>
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<td>100.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>13</td>
<td>7.7</td>
<td>92.3</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>10</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td>14.3</td>
<td>85.7</td>
</tr>
</tbody>
</table>
ranged from the 23-27 interval to the 58 or over interval. Two traditional instructors marked their ages being in the 33-37 interval. As shown in Table 12, the groups were very similar with IDECC having a median age of 46.25 while the traditional median was 37.50. Thus the instructors' median age for the two groups were close to the same age with a median difference of only 8.75 years.

Instructor Educational Degree. Adult distributive education instructors may have various degrees. Adult classes in distributive education may be taught by instructors with extensive education and business experience or instructors with extensive business experience and less education. In order to ascertain the highest level of education attained by the instructors of this study, the instructor questionnaire asked for the highest educational degree.

In the IDECC group, four of the seven instructors indicated their highest degree was a bachelor's degree and three of the seven instructors had a master's degree. One-half of the traditional instructor's highest degree was a bachelor's degree and the other half of the traditional instructors' highest degree was a master's degree (see Table 13).

Type of full-time employment of instructors. Adult distributive education instructors may be full-time educators, businesspersons, or others with a background in marketing and distribution.

The majority of instructors participating in this study were employed full-time as post-secondary instructors. Three of the 7 IDECC instructors and 5 of the 8 traditional instructors were post-secondary instructors. The other instructors in the IDECC group included two businesspersons and one administrator. The other instructors in the traditional group included
### Table 12

Frequency, Frequency Percentage, and Cumulative Percentage of Instructors' Age Interval by Teaching Approach

<table>
<thead>
<tr>
<th>Age Interval</th>
<th>IDECC - experimental</th>
<th></th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
<td>Cumulative Percentage</td>
</tr>
<tr>
<td>23-27</td>
<td>1</td>
<td>14.3</td>
<td>14.3</td>
</tr>
<tr>
<td>28-32</td>
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<td>42.9</td>
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<td>33-37</td>
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<tr>
<td>38-42</td>
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<td>42.9</td>
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<td>43-47</td>
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<td>71.5</td>
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<td>48-52</td>
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<td>28.6</td>
<td>100.0</td>
</tr>
<tr>
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<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td>58 or Over</td>
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<td>100.0</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Median of IDECC Instructors' Age: 46.25
Range of IDECC Instructors' Age: 25

Median of Traditional Instructors' Age: 37.5
Range of Traditional Instructors' Age: 35
Table 13

Frequency, Frequency Percentage, and Cumulative Percentage of Instructors' Highest Degrees by Teaching Approach

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
</tr>
<tr>
<td>Bachelor's</td>
<td>4</td>
<td>57.1</td>
</tr>
<tr>
<td>Master's</td>
<td>3</td>
<td>42.9</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>
one full-time adult instructor, one high school teacher-coordinator, and one businessperson (see Table 14).

**Instructor years of teaching experience.** Adult distributive education instructors may have varying years of teaching experience. In the IDECC group, five of the seven instructors had 11 or fewer years of teaching experience. One IDECC instructor had 18 years and one IDECC instructor had 22 years of teaching experience. In the traditional group, seven of the eight instructors had ten or fewer years of teaching experience. The other traditional instructor had 19 years of teaching experience.

The two groups, IDECC and traditional, had a similar number of years of teaching experience as shown in Table 15. The ranges of the two groups were very close with the IDECC group's range being 19 and the traditional group's range being 13.

**Instructor Years of occupational experience.** Adult distributive education instructors have occupational experience. The extent of that experience varies among instructors. The instructor questionnaire asked the instructor to give the actual number of years of occupational experience the instructor had at the time of this study.

The traditional group was composed of instructors with years of occupational experience ranging from two to 24. One-half of the traditional instructors (four out of eight) had less than ten years of occupational and the other half had more than ten years of occupational experience. The IDECC group was comprised of instructors with years of occupational experience ranging from five to 11 with two instructors having eight years of occupational experience. Thus, the traditional
Table 14
Frequency, Frequency Percentage, and Cumulative Percentage of Instructors' Type of Full-Time Employment

<table>
<thead>
<tr>
<th>Type Employment</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
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<tr>
<td>Adult instructor</td>
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<td>28.6</td>
</tr>
<tr>
<td>Post-secondary instructor</td>
<td>3</td>
<td>42.8</td>
</tr>
<tr>
<td>High School Teacher-Coordinator</td>
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<td>14.3</td>
</tr>
<tr>
<td>Businessperson</td>
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<td>0.0</td>
</tr>
<tr>
<td>Administrator</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Totals</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Years of Teaching Experience</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
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<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
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<td>14.3</td>
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<tr>
<td>6</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>28.6</td>
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<td>14.3</td>
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</tr>
<tr>
<td>22</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Median of IDECC Instructors' Years of Teaching Experience: 7.25
Range of IDECC Instructors' Years of Teaching Experience: 19

Median of Traditional Instructors' Years of Teaching Experience: 5.0
Range of Traditional Instructors' Years of Teaching Experience: 18
group instructors varied more than the IDECC group instructors in relation to number of years of occupational experience. However, the medians were close with the IDECC median being 7.75 and the traditional median being 11.5 (see Table 16).

Instructor major area of study. Adult distributive education instructors have various backgrounds in relation to education since business experience is often used as a major criterion in the selection of adult instructors and these instructors may have varying educational backgrounds. Thus, the major area of study of instructors varies. The instructor questionnaire requested information pertaining to the major area of study of the instructors.

Three of the seven IDECC instructors and three of the eight traditional instructors had majors in distributive education. Two of the IDECC instructors and four of the traditional instructors indicated business administration as the major areas of study. Two IDECC instructors had majors in psychology and one traditional instructor had a major in civil engineering (see Table 17).

Instructor years of teaching adult courses. Adult distributive education instructors have varying experience in adult teaching. The instructor questionnaire gathered data on the instructors' years of teaching adult courses. The IDECC group had instructors with years of teaching adult courses ranging from two to seventeen and the traditional group had instructors with years of teaching adult courses ranging from one to ten. Both IDECC and traditional groups had medians close to six meaning that the instructors of both groups averaged close to the same number of years of teaching adult courses (see Table 18).
Table 16

Frequency, Frequency Percentage, and Cumulative Percentage of Years of Instructor Occupational Experience by Teaching Approach

<table>
<thead>
<tr>
<th>Years of Occupational Experience</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Median Years of IDECC Instructors' Occupational Experience: 7.75

Median Years of Traditional Instructors' Occupational Experience: 11.50

Range of Years of IDECC Instructors' Occupational Experience: 6

Range of Years of Traditional Instructors' Occupational Experience: 22
<table>
<thead>
<tr>
<th>Major Area of Study</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>3</td>
<td>42.9</td>
</tr>
<tr>
<td>Business Administration</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>Psychology</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 10

Frequency, Frequency Percentage, and Cumulative Percentage of Years of Instructors' Teaching Adult Courses by Teaching Approach

<table>
<thead>
<tr>
<th>Years of Teaching Adult Courses</th>
<th>IDECC - experimental</th>
<th>Traditional - control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Frequency Percentage</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Median Years of IDECC Instructor Adult Course Teaching: 6.0

Range of Years of IDECC Instructor Adult Course Teaching: 15

Median Years of Traditional Instructor Adult Course Teaching: 5.0

Range of Years of Traditional Instructor Adult Course Teaching: 9
Dependent Variable

Student posttest scores were reported as the number of correct responses by the student on a 34 item multiple choice test.

The class with the highest class mean score within the IDECC group was in site six with a mean of 29.08. The lowest IDECC class mean on the posttest occurred in site seven with a mean of 17.31. T: 3 provides a range of 11.77.

Within the traditional group, the highest class mean was in site eight with a mean of 28.71. The lowest class mean was in site seven with a mean of 18.90 thus providing a range of 9.81.

As shown in Table 19, the group means for the IDECC and traditional group were very similar with a mean of 25.66 for the IDECC group and a mean of 25.39 for the traditional. The standard deviations were also similar with the standard deviation for the IDECC group being 5.04 and the standard deviation of the traditional group being 4.37. Thus, the amount of dispersion of the scores for each group were close to the same.

The group means are raw score means with none of the preceding variables taken into consideration.

Analysis of Covariance

Full Model Analysis

When achievement scores are analyzed to determine how much variance teaching approach contributed to the research study posttest score, the secondary research question, identified in Chapter 1, must be answered: "What proportion of the variance is accounted for by other variables of interest?" A total of 48 sources of variance was taken into consideration. An analysis of covariance by regression was performed involving the 48 sources of variance as presented in the full model in
Table 19
Numbers, Means, and Standard Deviations of Student Post Test Scores by Class and Teaching Approaches

<table>
<thead>
<tr>
<th>Teaching Approach</th>
<th>Class</th>
<th>Post Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Traditional</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>IDECC</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>99</td>
</tr>
</tbody>
</table>
Table 20. By entering these sources of variance into the equation the full model accounts for 81.83% of the variance of the research study posttest scores, as indicated in the R-square column of Table 21.

The full model analysis revealed that five sources of variance were contributing significantly to the posttest scores. These sources were as follows (Tables 20 and 21):

- $(X_{12})$ (School) $F = 2.06; \ df = \frac{12}{105}; \ p = .0230$
- $(X_5 \times X_5)$ (Student Educational Level by Student Educational Level) $F = 4.15; \ df = \frac{1}{105}; \ p = .0443$
- $(X_6 \times X_6)$ (Student Occupational Experience by Student Occupational Experience) $F = 5.16; \ df = \frac{1}{105}; \ p = .0252$
- $(X_{11} \times X_{11})$ (Teaching Approach by Student Past Participation in Distributive Education Programs) $F = 4.56; \ df = \frac{1}{105}; \ p = .0351$
- $(X_4 \times X_6)$ (Student Age by Student Occupational Experience) $F = 9.36; \ df = \frac{1}{105}; \ p = .0023$

School. The investigators expect the schools $(X_{12})$ to make a significant contribution to the posttest scores since the design of the study called for intact classes with a different instructor teaching each class.

Teaching approach in combination with student past participation in distributive education programs. Table 20 indicates that the interaction of teaching approach and student past participation in distributive education programs made a significant contribution to the student score on the research study posttest. The graph in Figure 2 shows that students without past participation in distributive education achieved a higher
Table 20

Full Model Analysis of Covariance for Sources of Variance
With Degrees of Freedom, Partial Sum of Squares,
F Value, and Probability Level

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Partial Sum of Squares</th>
<th>F Value</th>
<th>PR F</th>
</tr>
</thead>
<tbody>
<tr>
<td>X_1</td>
<td>1</td>
<td>2.01730273</td>
<td>0.34</td>
<td>0.5617</td>
</tr>
<tr>
<td>X_2</td>
<td>1</td>
<td>2.51816824</td>
<td>0.42</td>
<td>0.5168</td>
</tr>
<tr>
<td>X_3</td>
<td>1</td>
<td>0.00017335</td>
<td>0.00</td>
<td>0.9957</td>
</tr>
<tr>
<td>X_4</td>
<td>1</td>
<td>1.05128596</td>
<td>0.18</td>
<td>0.6751</td>
</tr>
<tr>
<td>X_5</td>
<td>1</td>
<td>22.4732025</td>
<td>3.78</td>
<td>0.0547</td>
</tr>
<tr>
<td>X_6</td>
<td>1</td>
<td>17.5365266</td>
<td>2.95</td>
<td>0.0890</td>
</tr>
<tr>
<td>X_7</td>
<td>1</td>
<td>6.11434762</td>
<td>1.03</td>
<td>0.3131</td>
</tr>
<tr>
<td>X_8</td>
<td>1</td>
<td>2.4827646</td>
<td>0.45</td>
<td>0.5034</td>
</tr>
<tr>
<td>X_9</td>
<td>1</td>
<td>5.0260212</td>
<td>0.84</td>
<td>0.3602</td>
</tr>
<tr>
<td>X_10</td>
<td>1</td>
<td>1.89658376</td>
<td>0.32</td>
<td>0.5736</td>
</tr>
<tr>
<td>X_11</td>
<td>1</td>
<td>4.13017685</td>
<td>0.69</td>
<td>0.4057</td>
</tr>
<tr>
<td>School (X_{12})</td>
<td>13</td>
<td>159.0148769</td>
<td>2.06</td>
<td>0.0230 *</td>
</tr>
<tr>
<td>X_2 * X_3</td>
<td>1</td>
<td>2.66315942</td>
<td>0.45</td>
<td>0.5050</td>
</tr>
<tr>
<td>X_2 * X_4</td>
<td>1</td>
<td>0.76042821</td>
<td>0.13</td>
<td>0.7215</td>
</tr>
<tr>
<td>X_2 * X_5</td>
<td>1</td>
<td>4.25046159</td>
<td>0.71</td>
<td>0.4000</td>
</tr>
<tr>
<td>X_2 * X_6</td>
<td>1</td>
<td>0.28414962</td>
<td>0.05</td>
<td>0.8275</td>
</tr>
<tr>
<td>X_2 * X_7</td>
<td>1</td>
<td>1.06842817</td>
<td>0.18</td>
<td>0.6726</td>
</tr>
<tr>
<td>X_4 * X_4</td>
<td>1</td>
<td>7.09353188</td>
<td>1.19</td>
<td>0.2774</td>
</tr>
<tr>
<td>X_5</td>
<td>1</td>
<td>24.67185237</td>
<td>4.15</td>
<td>0.0443 *</td>
</tr>
<tr>
<td>X_6</td>
<td>1</td>
<td>30.69208669</td>
<td>5.16</td>
<td>0.0252 *</td>
</tr>
<tr>
<td>X_7</td>
<td>1</td>
<td>11.6828413</td>
<td>1.96</td>
<td>0.1641</td>
</tr>
<tr>
<td>X_8</td>
<td>1</td>
<td>5.39404485</td>
<td>0.91</td>
<td>0.3433</td>
</tr>
<tr>
<td>X_9</td>
<td>1</td>
<td>0.29828736</td>
<td>0.05</td>
<td>0.8233</td>
</tr>
<tr>
<td>X_10</td>
<td>1</td>
<td>1.47462438</td>
<td>0.25</td>
<td>0.6197</td>
</tr>
<tr>
<td>X_11</td>
<td>1</td>
<td>0.00332175</td>
<td>0.00</td>
<td>0.9312</td>
</tr>
<tr>
<td>X_12</td>
<td>1</td>
<td>1.13056424</td>
<td>0.19</td>
<td>0.6638</td>
</tr>
<tr>
<td>X_13</td>
<td>1</td>
<td>4.89218014</td>
<td>0.82</td>
<td>0.3667</td>
</tr>
<tr>
<td>X_14</td>
<td>1</td>
<td>19.99181562</td>
<td>3.36</td>
<td>0.0697</td>
</tr>
<tr>
<td>X_15</td>
<td>1</td>
<td>2.25880074</td>
<td>0.33</td>
<td>0.5392</td>
</tr>
<tr>
<td>X_16</td>
<td>1</td>
<td>9.88420696</td>
<td>1.66</td>
<td>0.2003</td>
</tr>
<tr>
<td>X_17</td>
<td>1</td>
<td>27.13324919</td>
<td>4.56</td>
<td>0.0351 *</td>
</tr>
</tbody>
</table>

* Statistically Significant p < .05
(Table 20 continued)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Partial Sum of Squares</th>
<th>F Value</th>
<th>pR F</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x_2$ * $x_8$</td>
<td>1</td>
<td>12.72437599</td>
<td>2.14</td>
<td>0.1467</td>
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<tr>
<td>$x_2$ * $x_9$</td>
<td>1</td>
<td>3.47515216</td>
<td>0.58</td>
<td>0.4465</td>
</tr>
<tr>
<td>$x_9$ * $x_{10}$</td>
<td>1</td>
<td>3.75433137</td>
<td>0.63</td>
<td>0.4288</td>
</tr>
<tr>
<td>$x_4$ * $x_9$</td>
<td>1</td>
<td>3.97648237</td>
<td>0.67</td>
<td>0.4155</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>1</td>
<td>1.23970784</td>
<td>0.21</td>
<td>0.6490</td>
</tr>
<tr>
<td>$x_8$</td>
<td>1</td>
<td>2.77643057</td>
<td>0.47</td>
<td>0.4961</td>
</tr>
<tr>
<td>$x_9$</td>
<td>1</td>
<td>0.39987792</td>
<td>0.07</td>
<td>0.7960</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>1</td>
<td>55.71631159</td>
<td>9.36</td>
<td>0.0028</td>
</tr>
<tr>
<td>$x_2$</td>
<td>1</td>
<td>7.00786763</td>
<td>1.18</td>
<td>0.2803</td>
</tr>
<tr>
<td>$x_3$</td>
<td>1</td>
<td>2.73274954</td>
<td>0.35</td>
<td>0.5995</td>
</tr>
<tr>
<td>$x_4$</td>
<td>1</td>
<td>0.55432168</td>
<td>0.09</td>
<td>0.7608</td>
</tr>
<tr>
<td>$x_6$</td>
<td>1</td>
<td>5.01524935</td>
<td>0.85</td>
<td>0.3596</td>
</tr>
<tr>
<td>$x_7$</td>
<td>1</td>
<td>3.09268777</td>
<td>0.52</td>
<td>0.4726</td>
</tr>
<tr>
<td>$x_8$</td>
<td>1</td>
<td>2.50234066</td>
<td>0.42</td>
<td>0.5166</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>1</td>
<td>5.86957821</td>
<td>0.99</td>
<td>0.3229</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>1</td>
<td>21.87745986</td>
<td>3.68</td>
<td>0.0579</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>1</td>
<td>7.47348438</td>
<td>1.26</td>
<td>0.2650</td>
</tr>
</tbody>
</table>

* Statistically Significant p < .05
Table 21
Summary Table for Analysis of Covariance of Full Model Consisting of 48 Sources of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>PR F</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>60</td>
<td>2813.56060005</td>
<td>46.89267667</td>
<td>7.88</td>
<td>0.0001</td>
<td>0.818268</td>
</tr>
<tr>
<td>Error</td>
<td>105</td>
<td>624.87313489</td>
<td>5.95117271</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>165</td>
<td>3438.43373494</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3438.43373494</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23.55

26.48

With Past Participation
Without Past Participation
in Distributive Education
in Distributive Education

Figure 2. A graphic representation of interaction between teaching approach and past participation in distributive education programs.
posttest score when taught using the adult IDECC systematic approach than students taught using the traditional approach. Students with past participation in distributive education programs achieved a higher posttest score when taught using the traditional approach than when taught using the adult IDECC systematic approach.

**Restricted Model Analysis**

In order to investigate the second secondary research question, "Which of the 48 variables contributed significantly to the research study posttest score?" the full model was restricted to 19 sources of variance with only a loss of 4.52% of the 81.83% accounted for in the full model.

Tables 22 and 23 include the results of this restricted model analysis of covariance. Eleven sources of variance contributed significantly to the posttest scores, as follows:

- $X_2$ (Student Ability) $F = 82.83; \, df = 1; \, p = .0001$.
- $X_4$ (Student Age) $F = 7.02; \, df = 1; \, p = .0090$.
- $X_5$ (Student Educational Level) $F = 5.23; \, df = 1; \, p = .0238$.
- $X_6$ (Student Occupational Experience) $F = 4.13; \, df = 1; \, p = .0441$.
- $X_8$ (Student Supervisory and/or Managerial Experience) $F = 7.23; \, df = 1; \, p = .0079$.
- $X_{12}$ (School) $F = 3.05; \, df = 12; \, p = .0006$.
- $(X_5 \times X_5)$ (Student Educational Level by Student Educational Level) $F = 4.01; \, df = 1; \, p = .0473$.
- $(X_6 \times X_6)$ (Student Occupational Experience by Student Occupational Experience) $F = 8.61; \, df = 1; \, p = .0039$.
- $(X_1 \times X_8)$ (Teaching Approach by Student Supervisory and/or Managerial Experience) $F = 5.68; \, df = 1; \, p = .0185$.
The results of the restricted model revealed that although the teaching approach separately did not significantly contribute to the posttest scores, other variables were contributing separately and in combination. Furthermore, teaching approach in combination with student past participation in distributive education programs contributed significantly to the posttest score in the full model analysis and teaching approach in combination with student supervisory and/or managerial experience contributed significantly to the posttest score in the restricted model analysis.

**Student ability.** Table 23 indicates that the student's general mental ability contributed significantly to the posttest score. Figure 3 shows that although the individual observations were widely scattered, a linear relationship seemed to exist in such a way that the higher the student's ability score, the higher the student's posttest score. Furthermore, when the student's ability score is considered with the student's supervisory and/or managerial experience, a significant contribution is made to the student's posttest score. This interaction effect is discussed later in this chapter.

**Student age.** Table 23 indicates that the age of the student contributed significantly to the posttest score. This variable in combination with student occupational experience contributed significantly to the achievement of the student on the posttest score.
Table 22
Summary Table for Analysis of Covariance of Restricted Model Consisting of 19 Sources of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>PR F</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>2658.26032346</td>
<td>85.75033301</td>
<td>14.73</td>
<td>0.0001</td>
<td>0.773102</td>
</tr>
<tr>
<td>Error</td>
<td>134</td>
<td>780.17341148</td>
<td>5.82218964</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>165</td>
<td>3438.43373494</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 23

Restricted Model Analysis of Covariance for Selected Sources

Of Variances with Degrees of Freedom, Sum of Squares, F Value, and Probability Level

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Partial Sum of Squares</th>
<th>F Value</th>
<th>PR F</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1</td>
<td>0.48499078</td>
<td>0.08</td>
<td>0.7733</td>
</tr>
<tr>
<td>X2</td>
<td>1</td>
<td>482.24093611</td>
<td>82.83</td>
<td>0.0001 *</td>
</tr>
<tr>
<td>X3</td>
<td>1</td>
<td>4.3125879</td>
<td>0.83</td>
<td>0.3649</td>
</tr>
<tr>
<td>X4</td>
<td>1</td>
<td>40.86830867</td>
<td>7.02</td>
<td>0.0090 *</td>
</tr>
<tr>
<td>X5</td>
<td>1</td>
<td>30.42590176</td>
<td>5.23</td>
<td>0.2038</td>
</tr>
<tr>
<td>X6</td>
<td>1</td>
<td>24.04059798</td>
<td>4.13</td>
<td>0.0441 *</td>
</tr>
<tr>
<td>X7</td>
<td>1</td>
<td>0.79836906</td>
<td>0.14</td>
<td>0.7117</td>
</tr>
<tr>
<td>X8</td>
<td>1</td>
<td>42.38354351</td>
<td>7.28</td>
<td>0.0079 *</td>
</tr>
<tr>
<td>X9</td>
<td>1</td>
<td>20.32882635</td>
<td>3.49</td>
<td>0.0639</td>
</tr>
<tr>
<td>X10</td>
<td>1</td>
<td>0.08248306</td>
<td>0.01</td>
<td>0.9054</td>
</tr>
<tr>
<td>X11</td>
<td>1</td>
<td>0.25319272</td>
<td>0.04</td>
<td>0.8351</td>
</tr>
<tr>
<td>School (X12)</td>
<td>13</td>
<td>231.07402523</td>
<td>3.05</td>
<td>0.0006 *</td>
</tr>
<tr>
<td>X5 * X5</td>
<td>1</td>
<td>23.33435794</td>
<td>4.01</td>
<td>0.0473 *</td>
</tr>
<tr>
<td>X6 * X6</td>
<td>1</td>
<td>50.11876420</td>
<td>8.61</td>
<td>0.0039 *</td>
</tr>
<tr>
<td>X1 * X8</td>
<td>1</td>
<td>33.08917416</td>
<td>5.68</td>
<td>0.0185 *</td>
</tr>
<tr>
<td>X1 * X11</td>
<td>1</td>
<td>15.72393666</td>
<td>2.70</td>
<td>0.1027</td>
</tr>
<tr>
<td>X2 * X9</td>
<td>1</td>
<td>4.4546.331</td>
<td>7.12</td>
<td>0.0086 *</td>
</tr>
<tr>
<td>X4 * X6</td>
<td>1</td>
<td>60.91682406</td>
<td>10.46</td>
<td>0.0015 *</td>
</tr>
<tr>
<td>X6 * X10</td>
<td>1</td>
<td>1.35532203</td>
<td>0.23</td>
<td>0.5303</td>
</tr>
</tbody>
</table>

* Statistically Significant p < .05.
Figure 3. A graphic representation of the relationship between student ability and research study posttest score.
Student Age in Combination with Student Occupational Experience.

Not only did student age contribute separately and student occupational experience contribute separately to the posttest score, but the combination of student age and student occupational experience contributed significantly to the posttest score (Table 23). Figure 4 reveals that as the crossproducts of student age and student occupational experience increase, the research study posttest scores increase. However, the researchers caution the reader at this point in the discussion since the two variables forming this interaction are continuous variables which are non-additive. The graph in figure 4 is included for study purposes only.

Student educational level. A significant contribution to the posttest score was made by the variable, student educational level, by itself and when it was multiplied by itself. This indicates that a linear and a curva-linear relationship were present. Therefore, not only did student educational level have a linear effect, but it also had a curva-linear effect.

As the graph in Figure 5 indicates, as the student's educational level increased, the posttest score increased. However, as the student educational level got higher, the less of an increase occurred in the posttest scores.

Student occupational experience. A significant contribution to the posttest score was made by the variable, student occupational experience, by itself and when it was multiplied by itself. This indicates that linear and curva-linear relationships were present. Therefore, not only did student occupational experience have a linear effect, but it also had a curva-linear effect.
Figure 4. A graphic representation of the interaction between student age and student occupational experience.
Figure 5. A graphic representation between educational level and research study posttest score.
As the graph in Figure 6 indicates, as the student’s occupational experience increased, the posttest score decreased. Furthermore, the larger the number of years of occupational experience, the sharper the decrease in the posttest score. Also, this occupational experience variable affected the posttest score when considered in combination with the variable, student age.

**Student age in combination with student occupational experience.** The interaction of student age and student occupational experience contributed significantly to the scores on the research study posttest. However, the effect was not interpretable.

**Student supervisory and/or managerial experience.** Table 23 indicates that the student’s supervisory and/or managerial experience contributed significantly to the posttest score. This variable in combination with teaching approach and in combination with ability contributed significantly to the posttest score.

**Student ability in combination with student supervisory and/or managerial experience.** Figure 7 seems to indicate that as the combination of student ability and student supervisory and/or managerial experience increases, the posttest scores may decrease. However, the investigators caution the reader at this point of the discussion since the two variables forming this interaction are continuous variables which are non-additive. The graph in figure 7 is included for study purposes only.

**Teaching approach in combination with student supervisory and/or managerial experience.** Table 23 indicates that teaching approach and student supervisory and/or managerial experience interaction does contribute significantly to the achievement of students on the research study posttest.
Figure 6. A graphic representation of the relationship between student occupational experience squared and research study posttest score.
Figure 7. A graphic representation between student ability and student supervisory and/or managerial experience.
The graph in Figure 6 reveals that students with less than 2.89 years of supervisory and/or managerial experience who received instruction on employee training, evaluation, and motivation by the adult IDECC systematic approach tended to achieve higher posttest scores on the research study posttest than students with less than 2.89 years of supervisory and/or managerial experience taught by the traditional approach. However, as the number of years of supervisory and/or managerial experience increased past the 2.89 years, students taught by the traditional approach achieved higher posttest scores than the students taught by the adult IDECC systematic approach.
Figure 8. A graphic representation between years of supervisory and/or managerial experience and teaching approaches.
CHAPTER 4

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The final Chapter of this study will present:

1. A summary of the problem.
2. A review of the research methodology.
3. Major findings and conclusions.
4. Recommendations for further study.

Summary of the Problem

The need for this study resulted from the development of a new adult IDECC system. In order to provide the most effective competency-based materials for adult distributive education, a study was needed to determine the effectiveness of the newly adapted IDECC system at the adult level. The purpose of the study was to provide IDECC, Inc. with information which would be useful in improving future adult instructional materials.

Therefore, this study was designed to investigate the primary research question:

Does teaching approach, after controlling for school effect and selected student variables, contribute significantly to student achievement based on a measure of knowledge of employee training, evaluation, and motivation?

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If the answer to this question is yes, will there be a significant difference between the achievement of adult students who learn by the adult IDECC systematic teaching approach and adult students who learn by the traditional teaching approach?

Furthermore, this study was designed to investigate the following secondary research questions:

1. What proportion of the variance of student achievement is accounted for by the following sources of variance?

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$</td>
<td>Teaching Approach</td>
</tr>
<tr>
<td>$X_2$</td>
<td>Student Ability</td>
</tr>
<tr>
<td>$X_3$</td>
<td>Student Sex</td>
</tr>
<tr>
<td>$X_4$</td>
<td>Student Age</td>
</tr>
<tr>
<td>$X_5$</td>
<td>Student Educational Level</td>
</tr>
<tr>
<td>$X_6$</td>
<td>Student Occupational Experience</td>
</tr>
<tr>
<td>$X_7$</td>
<td>Student Previous Training in Employee Training, Evaluation, and Motivation</td>
</tr>
<tr>
<td>$X_8$</td>
<td>Student Supervisory and/or Managerial Experience</td>
</tr>
<tr>
<td>$X_9$</td>
<td>Student Employment Status</td>
</tr>
<tr>
<td>$X_{10}$</td>
<td>Type Student (preparatory or supplementary)</td>
</tr>
<tr>
<td>$X_{11}$</td>
<td>Past Participation in Distributive Education, Programs</td>
</tr>
<tr>
<td>$X_{12}$</td>
<td>School</td>
</tr>
<tr>
<td>$X_2 \times X_3$</td>
<td>Student Ability by Student Sex</td>
</tr>
<tr>
<td>$X_2 \times X_4$</td>
<td>Student Ability by Student Age</td>
</tr>
<tr>
<td>$X_2 \times X_5$</td>
<td>Student Ability by Student Educational Level</td>
</tr>
<tr>
<td>$X_2 \times X_6$</td>
<td>Student Ability by Student Occupational Experience</td>
</tr>
</tbody>
</table>
Variable $X_2$ by $X_8$ : Student Ability by Student Supervisory and/or Managerial Experience

Variable $X_2$ by $X_9$ : Student Ability by Student Employment Status

Variable $X_2$ by $X_{10}$ : Student Ability by Type Student

Variable $X_3$ by $X_6$ : Student Sex by Student Age

Variable $X_3$ by $X_7$ : Student Sex by Student Occupational Experience

Variable $X_3$ by $X_8$ : Student Sex by Student Supervisory and/or Managerial Experience

Variable $X_4$ by $X_5$ : Student Age by Student Educational Level

Variable $X_4$ by $X_6$ : Student Age by Student Occupational Experience

Variable $X_4$ by $X_7$ : Student Age by Student Supervisory and/or Managerial Experience

Variable $X_4$ by $X_8$ : Student Age by Student Employment Status

Variable $X_5$ by $X_6$ : Student Educational Level by Student Occupational Experience

Variable $X_5$ by $X_7$ : Student Educational Level by Student Previous Training in the Unit

Variable $X_5$ by $X_8$ : Student Educational Level by Supervisory and/or Managerial Experience

Variable $X_6$ by $X_7$ : Student Occupational Experience by Student Previous Training in the Unit

Variable $X_6$ by $X_8$ : Student Occupational Experience by Student Supervisory and/or Managerial Experience
Variable $X_6$ by $X_{10}$: Student Occupational Experience by Type Student

Variable $X_7$ by $X_9$: Student Previous Training in the Unit by Student Supervisory and/or Managerial Experience

2. Which of the above variables contribute significantly to the achievement of adult students based on a measure of their knowledge of employee training, evaluation, and motivation?

Research Methodology

The study was quasi-experimental involving two levels of treatment: (1) the adult IDECC teaching approach and (2) the adult traditional teaching approach.

Sixteen classes were randomly selected from a population of 30 volunteer sites. Eight of the 16 classes were randomly assigned to one group while the remaining eight sites were assigned to a second group. Then each group was randomly assigned to either the adult IDECC teaching approach or to the traditional teaching approach. One adult IDECC class did not complete the study.

In order to assure control of the study, a workshop was held for each of the groups, IDECC and traditional.

The instructional materials for both teaching approaches were based on the unit, "Employee Training, Evaluation, and Motivation." The same objectives were used for both approaches.

The IDECC approach instructors utilized selected adult IDECC competency-based materials for their unit of instruction. The traditional instructors developed lesson plans for their instructional materials.
within the workshop setting. This method was used by all eight traditional instructors involved in the study.

In order to collect the data on the variables of interest, questionnaires were developed and administered to the students and instructors prior to the treatment.

At the onset of the study, students were administered a research study pretest and a general mental ability test. The research study pretest was designed and validated to assess the student's prior knowledge of employee training, evaluation, and motivation in order to determine the equivalency of the two groups based on their knowledge prior to the treatment. The ability test was used to determine if there was a significant difference in the ability of all the students involved in the study.

During the treatments, the students in the IDECC group received instruction by the adult IDECC systematic approach through 10 competency packages which provided instruction on the topic of employee training, evaluation, and motivation. The traditional students received their instruction through the traditional teaching approach as established by the traditional instructors during the workshop.

At the completion of the instruction, students in each group were administered a research study posttest to assess the students' knowledge of employee training, evaluation, and motivation.

Data were submitted by mail to the investigators as they were collected at the sites. Ability tests were hand scored and double checked at the project office of the investigators. The research study pretests and posttests were machine scored and spot checked for accuracy.
The data were analyzed by utilizing the Statistical Package for the Social Sciences (SPSS) for the description of the student and instructor variables. The Statistical Analysis System (SAS) was used to analyze the sources of variance in relation to the research study's posttest scores.

**Major Findings and Conclusions**

Notwithstanding the limitations stated in Chapter 1, the findings and conclusions of this study are as follows:

**Secondary Research Questions**

**Question - 1.** What proportion of the variance of student achievement is accounted for by the sources of variance identified in Chapter 1?

When analysis of covariance by regression was utilized taking 48 sources of variance into consideration, 81.83% of the variance was accounted for in the research study posttest score. After restricting the sources of variance to 19, only a 4.52% loss of the variance accounted for in the full model occurred, therefore, 77.31% of the variance was accounted for in the restricted model.

**Question - 2.** Which of the identified sources of variance contribute significantly to the achievement of adult students based on a measure of their knowledge of employee training, evaluation, and motivation?

Within the full model with 48 sources of variance presented, five sources of variance made significant contributions, which were as follows: school, student educational level by student educational level, student occupational experience by student occupational experience, teaching approach by student past participation in Distributive Education programs, and student age by student occupational experience.
Based upon these findings, the investigators concluded that variables contributing to student research study posttest scores among the students participating in this study were: school \( (p = .0230) \), student educational level by student educational level \( (p = .0443) \), student occupational experience by student occupational experience \( (p = .0252) \), teaching approach by student past participation in Distributive Education programs \( (p = .0351) \), and student age by student occupational experience \( (p = .0028) \).

Students without past participation in distributive education achieved a higher posttest score when taught using the adult IDECC systematic approach than students taught using the traditional approach. Students with past participation in Distributive Education achieved a higher posttest score when taught using the traditional approach than when taught using the adult IDECC systematic approach.

This source of variance was the only variable that contributed significantly to the research study posttest according to the full model analysis but did not contribute significantly according to the restricted model analysis.

The investigators found that by restricting the sources of variance to 19, with only a 4.52% loss of the variance accounted for in the full model, the following eleven sources of variance made a significant contribution to the research study posttest score:

a. student supervisory and/or managerial experience \( (p = .0079) \)

b. student ability by student supervisory and/or managerial experience \( (p = .0086) \)

c. teaching approach by student supervisory and/or managerial experience \( (p = .0185) \)
d. student ability (p = .0001)
e. student age (p = .0090)
f. student occupational experience (p = .0041)
g. student occupational experience by student occupational experience (p = .0039)
h. student age by student occupational experience (p = .0045)
i. student educational level (p = .0233)
j. student educational level by student educational level (p = .0473)
k. school (p = .0006)

a.b.c. Supervisor and/or managerial experience of the student contributed significantly to the research study posttest score when considered alone, when considered in combination with student ability and when considered in combination with teaching approach, as the combination of student ability and student supervisory and/or managerial experience increased, the research study posttest scores seemed to increase.

Students with less than 2.89 years of supervisory and/or managerial experience who received instruction on employee training, evaluation, and motivation by the adult IDECC systematic approach tended to achieve higher posttest scores than students with less than 2.89 years of supervisory and/or managerial experience taught by the traditional approach. However, as the number of years of supervisory and/or managerial experience increased past 2.89 years, the students taught by the traditional approach achieved higher posttest scores than the students taught by the adult IDECC systematic approach.
d. As student ability increased, the research study posttest scores increased.

3. f. g. and h. Student age significantly contributed when considered alone; student occupational experience significantly contributed separately, when multiplied by itself and then considered in combination with student age.

The investigators found that as the student's occupational experience increased, the posttest score decreased. Furthermore, the larger the number of years of occupational experience, the sharper the decrease in the posttest score.

However, as the crossproducts of student age and student occupational experience increased, the posttest scores seemed to increase.

i. and j. As the student's educational level increased, the research study posttest score increased. However, as the student educational level got higher, the less of an increase occurred in the research study posttest score.

k. The effect of the intact classes used in the studies resulted in schools making a significant contribution to the research study posttest scores.

Primary Research Questions

This study was primarily designed to answer the following research question:

Does teaching approach after controlling for school effect and selected student variables contribute significantly to student achievement based on a measured knowledge of employee training, evaluation, and motivation? If the answer to this question is yes, will there be a
significant difference between the achievement of adult students who learn by the adult IDECC systematic teaching approach and adult students who learn by the traditional teaching approach?

Teaching approach was found to contribute significantly to the research study posttest scores when considered in combination with student past participation in Distributive Education programs and when considered in combination with student supervisory and/or managerial experience. Specifically, a significant difference occurred between the achievement of adult students who learned by the adult IDECC systematic approach and adult students who learned by the traditional approach when the teaching approach was considered in combination with student past participation in Distributive Education programs and when the approach was considered in combination with student supervisory and/or managerial experience.

Students without past participation in Distributive Education programs achieved higher posttest scores when taught using the adult IDECC approach than students taught using the traditional approach. However, students with past participation in Distributive Education achieved higher posttest scores when taught by the traditional approach than when taught by the adult IDECC approach. Therefore, the investigators concluded that adult students having never participated in Distributive Education prior to instruction may achieve more by being taught by the adult IDECC approach. However, an adult student with experience in Distributive Education may achieve more by being taught by the traditional approach.

The investigators found that students with less than 2.89 years of supervisory and/or managerial experience who received instruction by the
adult IDECC approach tended to achieve higher posttest scores than students with less than 2.89 years of supervisory and/or managerial experience taught by the traditional approach. However, as the number of years of supervisory and/or managerial experience increased past 2.89 years, the students taught by the traditional approach achieved higher posttest scores than the student taught by the adult IDECC approach.

The investigators concluded that students with under 2.89 years of supervisory and/or managerial experience may achieve higher when learning by the adult IDECC teaching approach than by the traditional approach and that students with over 2.89 years of supervisory and/or managerial experience may gain more achievement when learning by the traditional approach than by the adult IDECC approach.

Implications

Since supervisory and/or managerial experience is directly related to the content of the unit taught in this study, namely, employee training, evaluation, and motivation, an implication of the previously stated findings is that students with little or no experience in the content to be studied may gain more knowledge by using the adult IDECC systematic approach rather than the traditional approach.

Furthermore, based on the findings of this study, new adult Distributive Education students without past experience in Distributive Education may gain more knowledge by using the adult IDECC systematic approach rather than the traditional approach.
Recommendations for Further Research

Based on the findings of this study, the following are recommendations for further research:

1. A study that replicates the design of this study using more of the competency-based materials of the adult IDECC system.

2. A study that examines the relationship between school effect and teaching approach.

3. An investigation of instructor variables as they relate to the effectiveness of a teaching approach.

4. A descriptive study that identifies the characteristics of students enrolled in adult distributive education courses.

5. A descriptive study that identifies adult distributive education courses offered across the United States.

6. A descriptive study that identifies the characteristics of the traditional teaching approach.

7. A study to determine attitudes of adult distributive education students toward the adult IDECC approach as compared to the traditional approach.
BIBLIOGRAPHY


"A Digest of Human Subject Program Guidelines." Columbus, Ohio: The Ohio State University, July 1, 1977.


APPENDIX A

Unit of Instruction Outline
EMPLOYEE TRAINING, EVALUATION, AND MOTIVATION

A. Job Orientation
   1. Efficiency in job orientation
   2. Orientation and its relation to future job performance

B. Employee Training
   1. Methods of training
   2. Selection of training methods
   3. Use of training methods

C. Employee Evaluation
   1. Evaluation procedures
   2. Analysis of employee performance
   3. Constructive criticism

D. Employee Morale and Motivation
   1. Employee morale
   2. Employee motivation
   3. Employee complaints
APPENDIX B

Reference Information for Competencies from the Adult IDECC System
ABSTRACT

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT DISTRIBUTIVE EDUCATION

EIGHTEEN MONTHS - SEPTEMBER 1976 to MARCH 1978

OBJECTIVE: To develop and validate a competency based adult distributive education instructional system using the current IDECC system as a nucleus of the project.

PROCEDURE: A panel of consultants who represent industry and education within each of the seven IDECC business areas reviewed the current IDECC system. Educators from adult distributive education re-wrote Learning Activities where needed as identified by the consultants. Rewritten adult learning activities were field tested in adult distributive education programs. Review of the field tested activities identified needed changes. Final learning activities were developed.

RESULTS: Based upon the field test of the developed adult learning activities it was demonstrated that the current IDECC system is a usable format for adult distributive education.

CONTRIBUTION TO ADULT DISTRIBUTIVE EDUCATION:

Specific adult distributive education learning activities have been written to supplement the existing IDECC system. Flexibility, offering a wide application to adult skill training, is now available to the users of the IDECC system.

Spinoff effects: core competencies identified; specific competency identification with jobs at levels—entry, step I and step II—within business areas and curriculum sections.
The ten adult competencies utilized for this experimental study can be found in Part I of the Final Report, U.S.O.E., Part C., Grant #G0076-05242, "B", "T", project #498AH60200. The competency numbers for the Learning Activity Packages utilized in this study are:

- Competency # 097 (Communication)
- Competency # 604 (Management)
- Competency # 605 (Management)
- Competency # 606 (Management)
- Competency # 607 (Management)
- Competency # 610 (Management)
- Competency # 664 (Management)
- Competency # 690 (Management)
- Competency # 691 (Management)
- Competency # 729* (Management)

* Competencies were presented by the IDECC group of instructors in this order of instruction to the experimental treatment group.
APPENDIX C

Objectives and Resources Utilized in the Experimental Study
**OBJECTIVES**

Objective: As a result of the study of job orientation and the training process, you will be able to identify a minimum of ten points/steps that will assure efficiency in job orientation training.

Objective: As a result of the study, you will indicate one of two reasons proper employee orientation is necessary to insure future job performance and discuss two of four approaches a supervisor may use to orient a new employee.

Objective: Given a job performance to be developed, the student will demonstrate the ability to identify most appropriate methods of training an individual for the position.

Objective: The student will indicate a knowledge and understanding of ten training methods.

Objective: To demonstrate knowledge and understanding of a store's procedure for evaluating employees, the student will respond to four questions concerning evaluation procedures.

Objective: The student will be able to identify, in writing, three specific suggestions one should keep in mind when using records to analyze and supervise the work of employees at different levels.

Objective: As a result of a study of employee problems, the student will be able to name a minimum of three guides/steps he would use when correcting an employee.

Objective: By correctly responding to a series of questions, the student will indicate an understanding of the factors/ways of developing employee pride.

Objective: By responding to a series of sample questions, the student will indicate a knowledge and understanding of four ways to maintain a working environment which offers security and freedom from worry for employees.

Objective: Given prepared questions, demonstrate a knowledge of how to communicate with others in order to make them work willingly.
Resource Book List

APPENDIX D

Letter and Reference Form to Distributive Education State Supervisors
IDECC Project Office
1166 Chesapeake Ave.
Columbus, Ohio 43212

Dear...

The Interstate Distributive Education Curriculum Consortium (IDECC) will be conducting an experimental study in the spring as a part of a recently funded federal project. A comparison is to be made between the use of the IDECC systematic approach of instruction and the traditional approach in adult distributive education classes.

At this time, I am attempting to identify adult distributive education courses that are planned for the spring (April, May, early June) and adult instructors who may be interested in participating in this study. Courses must be at least ten hours in length and may be either preparatory or supplementary (upgrading of employees). They may or may not be geared towards a certain type of business. In order to avoid the risk of courses not being filled, only relatively stable programs will be used if at all possible.

Instructors will come to Columbus for one to five days of training in March, depending on whether the instructor will be using the IDECC systematic approach or traditional approach. A stipend and expenses will be paid to the instructors for participation in the March workshop. In addition, a set of IDECC materials will be given to each site.

Please identify on the enclosed form adult instructors you believe may be interested and the courses they will be teaching in the spring. These may be distributive education teacher-coordinators, full-time adult instructors, or businesspeople with a teaching background. The instructor should have had experience in teaching. However, knowledge of IDECC is not necessary. I will contact those suitable for the study to determine their interest.

Please send me this information by November 25th. Thank you.

Sincerely yours,

Robert G. Berns
IDECC Project Coordinator

If you do not have information needed to respond to this request, please forward this letter through proper channels.
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<thead>
<tr>
<th>Course Taught</th>
<th>Primarily (check one)</th>
<th>If Appropriate, Specific Type of Business (e.g., department store)</th>
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Instructor's Name ___________________________ Phone # ___________________________

Address ____________________________________________ Street ____________ City, State ____________ Zip ____________

Full Time Occupation ___________________________
APPENDIX E

Letter and Response Form to
Instructors
The Interstate Distributive Education Curriculum Consortium (IDECC) will be conducting an experimental study in the spring as a part of a recently funded federal project. A comparison is to be made between the use of the IDECC systematic approach of instruction and the traditional approach in adult distributive education classes.

You have been suggested as an adult instructor who may be interested in participating in this study. Courses must be at least ten hours in length and may be either preparatory or supplementary (upgrading of employees). They may or may not be geared towards a certain type of business.

Instructors will come to Columbus for one to five days of training in March, depending on whether the instructor will be using the IDECC systematic approach or traditional approach. A stipend and expenses will be paid to the instructors for participation in the March workshop. In addition, a set of IDECC materials will be given to each site.

If you are interested in participating in this study and have an adult distributive education class(es) planned for the spring, please fill out the enclosed form and return it in the envelope by You need not have any knowledge of IDECC. After hearing from you, I will send you further information.

Thank you.

Sincerely,

Robert G. Berns
IDECC Project Coordinator
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**Adult D.E. Courses**
Planned for the
Spring of 1978

(Please attach a course outline if you have one)

Please return by
APPENDIX F

Letter and Response Form to Interested Instructors
Thank you for your interest in the adult IDECC project planned for spring. In order to make the final selection of 16 instructors, I will need for you to complete and return the enclosed form.

Based on the course titles and outlines that many of you submitted, I have developed a short unit of instruction which has the potential of slotting into one of several courses. Approximately 5-10 hours of instruction in April and/or May will be needed for this unit. The rest of the course time, of course, is entirely your own.

Please review the enclosed unit outline and complete and return the attached form. The course may be supervision, small business management, or any other course as long as you use this unit of instruction in its entirety. The main concern is that your class be within the area of adult distributive education. Students may be gaining credit towards a high school diploma. However, credit toward an associate (post-secondary), or baccalaureate degree would exclude that class from participating.

Dates for the workshop in Columbus, Ohio are yet to be determined. Please check off the dates you cannot attend on the enclosed form. Only check those on which you ABSOLUTELY CANNOT ATTEND.

The length of the workshop will be either 2 or 3 days. This will be determined in early February based upon the agenda. You will come to Columbus on either Wednesday or Thursday evening and depart on Saturday night. A stipend of $300 will be paid to you if the workshop is 3 days or $200 if it is 2 days.

Your stipend along with a set of the IDECC system materials will be sent to you upon the completion of your teaching the unit and submitting the requested data.

All transportation, motel and food expenses will also be paid for your trip to Columbus.
I must have this form back by January 27th in order to include you as a potential site when I make the final selection. You will be notified in early February whether or not you have been selected. The actual dates for the workshop will also be set at that time.

If you have any questions, please call me collect at (614) 486-6417. Thank you.

Sincerely,

Robert G. Berns
IDECC Project Coordinator

Enclosure: (2)
RGB/cal
EMPLOYEE TRAINING, EVALUATION, AND MOTIVATION

A. Job Orientation
   1. Efficiency in job orientation
   2. Orientation and its relation to future job performance

B. Employee Training
   1. Methods of training
   2. Selection of training methods
   3. Use of training methods

C. Employee Evaluation
   1. Evaluation procedures
   2. Analysis of employee performance
   3. Constructive criticism

D. Employee Morale and Motivation
   1. Employee morale
   2. Employee motivation
   3. Employee complaints
I am willing to participate in this study and use the enclosed unit in a course I am teaching in April and/or May.

Yes ___ No ___

If yes, what course? __________________________________________

If not, why not? __________________________________________

DATES I CANNOT ATTEND

I cannot come to Columbus on the following dates:

(Wednesday, March 1) Thursday, March 2 - Saturday, March 4

(Wednesday, March 8) Thursday, March 9 - Saturday, March 11

(Wednesday, March 15) Thursday, March 16 - Saturday, March 18

(Wednesday, March 22) Thursday, March 23 - Saturday, March 25

(Wednesday, March 29) Thursday, March 30 - Saturday, April 1

PLEASE RETURN IN THE ENCLOSED ENVELOPE BY JANUARY 27
APPENDIX G

Letters to Instructors Informing Them of Results of the Random Selection
Thank you for your interest in the adult IDECC experimental study planned for spring. More instructors were interested in participating than could be included. Selection was based first on the dates that the instructor could be in Columbus. This eliminated some applicants. From the remaining list, a random selection of 16 classes was made. Due to one of the above conditions, your class was excluded from the study.

The possibility remains that one or more of the participating instructors may find it necessary to withdraw from the study for some reason. If this occurs and your name is randomly selected for participation in the study, you will be called immediately.

Thanks again for your positive response.

Sincerely,

Robert G. Berns
IDECC Project Coordinator

RGB/cal
You have been randomly selected to participate in an experimental study concerning the adult IDECC system and will be teaching the enclosed unit of instruction using the IDECC approach. Enclosed is a summary of the experiment and conditions for the study for your review. These conditions may seem rather strict, but are necessary to obtain valid results.

A workshop will be conducted to prepare you and the other instructors for teaching the unit of instruction. I have provided in this envelope another copy of the unit outline sent to you earlier.

Please make your own plane or travel arrangements so that you will arrive in Columbus on Wednesday evening, March 15 and leave after 3:00 P.M. Saturday, March 18. The meeting will be held Thursday morning, March 16 through Saturday morning, March 18 in Columbus, Ohio.

Plane and limousine fares and approximately $10.00 per day for breakfast and dinner will be reimbursed at the close of the workshop. Lodging (at double occupancy) and lunch will be paid on a master bill by IDECC. The name and address of the motel is enclosed. Whenever possible, roommates will be assigned based upon smoking or non-smoking. A single room will cost you $30.50 ($10.20 per night) which will be collected at the workshop.

At the close of the experimental study, a stipend of $300 will be paid to you as a participating instructor. Also, a set of the IDECC system will be sent at that time.

Enclosed is a brief form to be completed and returned as soon as possible. If there is any reason you cannot participate in the study, please call me immediately. It is imperative that eight sites participate in each teaching
approach and that each instructor attends the workshop.

Thank you so much for your willingness to participate in the study. If you have any further questions, please call me collect at (614) 486-6417.

Looking forward to working with you during the experiment.

Sincerely,

Robert G. Berns
IDECC Project Coordinator

Enclosures:  Form (to be returned in enclosed envelope)
Motel Information Sheet
Description of the Experimental Study
Experimental Study Conditions
Unit Outline
Sample of Human Subjects Consent Form
You have been randomly selected to participate in an experimental study concerning the adult IDECC system and will be teaching the enclosed unit of instruction using the traditional approach. Enclosed is a summary of the experiment and conditions for the study for your review. These conditions may seem rather strict, but are necessary to obtain valid results.

A workshop will be conducted to prepare you and the other instructors for teaching the unit of instruction. I have provided in this envelope another copy of the unit outline sent to you earlier.

Please make your own plane or travel arrangements so that you will arrive in Columbus on Wednesday evening, March 8 and leave after 3:00 P.M. Saturday, March 11. The meeting will be held Thursday morning, March 9 through Saturday morning, March 11 in Columbus, Ohio.

Plane and limousine fares and approximately $10.00 per day for breakfast and dinner will be reimbursed at the close of the workshop. Lodging (at double occupancy) and lunch will be paid on a master bill by IDECC. The name and address of the motel is enclosed. Whenever possible, roommates will be assigned based upon smoking or non-smoking. A single room will cost you $30.60 ($10.20 per night) which will be collected at the workshop.

At the close of the experimental study, a stipend of $300 will be paid to you as a participating instructor. Also, a set of the IDECC system will be sent at that time.

Enclosed is a brief form to be completed and returned as soon as possible. If there is any reason you cannot participate in the study, please call me.
immediately. It is imperative that eight sites participate in each teaching approach and that each instructor attends the workshop.

Thank you so much for your willingness to participate in the study. If you have any further questions, please call me collect at (614) 486-6417.

Looking forward to working with you during the experiment.

Sincerely,

Robert G. Berns
IDECC Project Coordinator

Enclosures: Form (to be returned in enclosed envelope)
Motel Information Sheet
Description of the Experimental Study
Experimental Study Conditions
Unit Outline
Sample of Human Subjects Consent Form
Location of Workshop: Hospitality Motor Inn
Interstate Rt. 7 and State Rt. 161
1000 East Dublin-Granville Road
Columbus, Ohio

Phone: (614) 888-4300

Limousine service is available from Port Columbus Airport to the Hospitality Motor Inn. Fare is $10.00 for a round trip ticket which will be reimbursed at the workshop. This limousine is marked "Airport Limousine" and looks like a yellow bus. It caters to many Columbus north end motels, including the Hospitality Inn. It leaves the airport at the following times:

11:35 A.M.  4:50 P.M.
1:40 P.M.   6:30 P.M.
3:15 P.M.   8:40 P.M.

If you are unable to make the 8:40 P.M. limousine, please take a taxi to the motel.

Ask at the desk for the IDECC meeting room number. Reservations will be made for you. If you prefer a single room, please so indicate on the enclosed form. Reimbursement will be at double occupancy rate. A single will cost you $30.60 ($10.20 per night).

(Since it is usually cold in Columbus in March, warm clothing is advised.)
EXPERIMENTAL STUDY

ADULT

The experimental study in adult distributive education will be conducted to measure the achievement of adult distributive education students when learning either by the IDECC systematic approach or the traditional approach. Within the study, the two levels of instructional approach will involve the teaching of identical curriculum content for a period of five to ten instructional hours. A pre-test and post-test will be administered previous to the treatment and following the treatment respectively to control for threats to internal validity. In addition, a short ability test will be administered to the students.

Sixteen classes have been randomly selected from throughout the nation representing twelve states, eight of which will utilize the IDECC approach, and eight the traditional approach. The treatment has been randomly assigned to the selected intact groups, resulting in a quasi-experimental design.

The sixteen classes have been identified as follows: (1) recommendation of state supervisors, (2) volunteer action on the part of the instructor, and (3) the identification of similar courses being taught by the instructors.

An in-service workshop will be held for each of the two groups (traditional and IDECC) in order to control the experiment as closely as possible. Each group will be in workshop two and one-half days. Instructors will be paid a stipend of $300.00 for participating in this study. Expenses will be reimbursed for the following items: motel room (at double room occupancy), air fare and limousine service, and $10.00 a day for breakfast and dinner (lunch will be provided).

Each participating site will be given a set of the IDECC system at the close of the study.
EXPERIMENTAL STUDY CONDITIONS

For the study to be valid the following conditions have to be met:

1. The instructor of the unit must attend the workshop in Columbus, Ohio. (Expenses paid)

2. Students and instructor must sign a human subject clearance form. (See attached)

3. The students in the class must take a general ability test. (Takes approximately 20-30 minutes)

4. A pre-test and post-test (developed by IDECC, must be administered to all students in the study.

5. The unit must be taught in the manner prescribed in the workshop. IDECC instructors will use the IDECC approach. Traditional instructors will use the method established by the instructors in the traditional workshop.

6. The provided and identified resources must be used.

7. Preliminary work must not be done on the unit.

8. A brief background questionnaire will be administered to the instructor and students.

9. The enclosed topical outline of a unit of instruction must be implemented during the month of April and early May.

10. Students in the course must not be gaining credit toward a post-secondary degree.
Topics to be included in study

(please do not teach these topics prior to the workshop)

Employee Training, Evaluation, and Motivation

A. Job Orientation
   1. Efficiency in job orientation
   2. Orientation and its relation to future job performance

B. Employee Training
   1. Methods of training
   2. Selection of training methods
   3. Use of training methods

C. Employee Evaluation
   1. Evaluation procedures
   2. Analysis of employee performance
   3. Constructive criticism

D. Employee Morale and Motivation
   1. Employee morale
   2. Employee motivation
   3. Employee complaints
PLEASE RETURN THIS FORM AS SOON AS POSSIBLE

Name of Instructor ________________________________

Social Security Number ____________________________

Motel

Please check one of the following:

Double occupancy is acceptable

I prefer a single room and understand
I must pay the extra cost (3 nights @ $10.20 per night, total $30.60)

Please check one of the following:

Smoker

Non-smoker

Resources

Please check the blank if you have at least one (1) copy of the book available to you.


Resources (continued)


Motivate for Profit, Burbank, Distributive Education Instructional Materials Laboratory, University of Texas, 1967.


RESEARCH INVOLVING HUMAN SUBJECTS
CONSENT TO SERVE AS A SUBJECT IN RESEARCH

BEHAVIORAL AND SURVEY RESEARCH FORM

I consent to serve as a subject in the research investigation entitled:

The nature and general purpose of the research procedure have been explained to me. This research is to be performed by or under the direction of Dr. __________, who is authorized to use the services of others in the performance of the research.

I understand that any further inquiries I make concerning this procedure will be answered. I understand my identity will not be revealed in any publication, document, recording, video-tape, photograph, computer data storage, or in any other way which relates to this research. Finally, I understand that I am free to withdraw my consent and discontinue participation at any time following the notification of the Project Director.

Signed (Subject)

Date ____________________________ A.M.
Time ____________________________ P.M.

Witness - (Auditor)

Investigator

PA-027
APPENDIX H

Master List of Multiple Choice Items
Questions for Unit of Instruction

Employee Training, Evaluation, and Motivation

Select the best answer:

1. A formal orientation program should provide new employees with all but one of the following items. Which item should it NOT include?
   A. Information concerning safety rules.
   B. Elaboration over policies and procedures of the business
   C. Description of the company

2. Which person has the most important role in the orientation program?
   A. Co-worker
   B. Personnel director
   C. Supervisor

3. Time spent to reduce anxiety at the beginning of the orientation period has shown that:
   A. It makes no difference in the productivity and absenteeism of new employees.
   B. The results are greater productivity and reduced personnel costs
   C. Neither of the above statements are accurate.

4. The supervisor should not orient the new worker in the following way:
   A. The supervisor may assign the new employee to a current employee
   B. The supervisor may choose to conduct the entire orientation.
   C. The new employee may be allowed to look around and learn on their own.

5. Regardless of who actually does the orientation of new employees, the responsibility for the task lies with the:
   A. Worker
   B. Supervisor
   C. Peers

6. When should a new employee be oriented to the job?
   A. First day on the job
   B. After the employee has been able to "settle down" (second day)
   C. Second week of work

7. A primary purpose of the orientation program is to do which of the following?
   A. Train the employee
   B. Relieve anxieties of the employee
   C. Evaluate the employee
8. Proper job orientation has a relationship to:
   A. amount of salary required
   B. the overtime put in by the new employee
   C. future job performance

9. It has been found that in regard to anxieties and orientation that:
   A. anxiety of new employees interferes with the orientation and training process
   B. orientation and training makes new employees have anxieties
   C. it is better to orient and train new employees after they have been on the job six weeks.

10. A good training program is based upon which of the following?
    A. A variety of methods
    B. One specific method
    C. Classroom training

11. Initiation practices with new employees by peers has a tendency to:
    A. increase anxiety in new employees
    B. give an image that the organization will be pleasurable to work in.
    C. cause the new employee to resent their peers.

12. The use of a checklist in orienting new employees insures:
    A. that the new employee has something to follow for the first few days
    B. not overlooking items in orientation that are important to the new employee
    C. none of the above are accurate.

13. Job orientation programs are primarily concerned with which of the following?
    A. In-depth instruction on the organization, its purpose and procedures
    B. A general overview of the company and policies and procedures as they concern the new employee
    C. Both A and B

14. The most commonly used method of training employees is:
    A. classroom training
    B. on the job training
    C. conference or discussion

15. Which of the following training methods is used to provide training in the practical and theoretical aspects of the work in a skill trade?
    A. apprentice
    B. on-the-job
    C. Simulation
16. Which of the following training approaches provides for handling the maximum number of trainees with a minimum number of instructors?
   A. individualized instruction
   B. classroom training
   C. conference

17. Which of the following training methods is used when the actual equipment is not available but similar devices are used?
   A. simulation
   B. On-the-job
   C. demonstration

18. Which of the following training methods usually requires a high degree of employee participation?
   A. demonstration
   B. discussion
   C. simulation

19. A training program which combines practical on-the-job experience with formal classes are called:
   A. apprenticeship training
   B. cooperative training
   C. programmed instruction

20. Which of the following training methods is developed from actual, realistic experiences which the students interpret and analyze?
   A. simulation
   B. discussion
   C. case study

21. The most frequently used methods of training are:
   A. simulators and other training devices, computer assisted instruction, job instruction training, conference and lecture.
   B. job instruction training, conference or discussion, apprenticeship training, job rotation, coaching and lecture.
   C. job instruction training, computer assisted instruction, conference or discussion, apprenticeship training, coaching and lecture.

22. The use of a training method should be determined by:
   A. objectives of the particular training course
   B. abilities of the trainer and trainees
   C. both of the above
23. Which of the following is a disadvantage associated with programmed instruction?
   A. Each trainee learns at his or her own pace
   B. More instructors are needed
   C. Cost in preparing programs is high

24. Which of the following statements is most valid?
   A. Large companies usually use the same number of training methods as small businesses
   B. Certain methods of instruction are best for most training programs
   C. Some methods of instruction may be better for a particular training program than others

25. The content (subject matter) to be included in the training program should be based upon which of the following?
   A. Cost of the training method
   B. Tasks performed on the job
   C. Abilities of the individuals to be trained

26. Evaluation of a training program should be based primarily upon which of the following?
   A. The extent to which the original goal or objective was achieved
   B. Employee attitudes toward their training
   C. Methods training

27. Which of the following is NOT a consideration when choosing a training method?
   A. Type or level of the job
   B. Time and expense involved
   C. Objectives of the business

28. It is important that which of the following occur before employee training begins?
   A. Conducting a class entitled "How to Study"
   B. Issuing name tags
   C. Training the instructor

29. Appraisal of employees should occur at least:
   A. once every five years
   B. once a year
   C. once a month.

30. A formal evaluation system helps the supervisor in which of the following ways?
   A. Reduces the chance of personal bias distorting the rating
   B. Requires less time be spent on employee evaluation
   C. Both A and B
31. The evaluation of an employee should be made by:
   A. their co-workers
   B. the corporation president
   C. the immediate supervisor

32. Employee evaluation can serve as a basis for:
   A. salary adjustments, transfers, promotion and termination
   B. salary adjustments, promotions, vacations, and termination
   C. transfers, promotions, leave, termination

33. Which of the following factors is most frequently included in performance rating (evaluation) forms?
   A. Punctuality, drive, attendance, quantity
   B. Cooperation, quality, stability, attitude
   C. Both A and B

34. Which of the following is a major difficulty in filling out evaluation forms?
   A. Finding the time to complete the form
   B. Understanding the format of the evaluation form
   C. Interpreting what is meant by such terms as excellent, good, average or poor

35. Who should appraise the employee?
   A. the manager
   B. the employee's immediate supervisor
   C. a co-worker

36. Which of the following best reflects when formal employee evaluation should occur?
   A. regularly
   B. continuously
   C. occasionally

37. An employee should be evaluated for which of the following reasons?
   A. an employee has a right to know (1) how well s/he is doing and (2) what s/he can do to better his/her work performance.
   B. To let him/her know where their weaknesses are and why they may not receive a pay raise
   C. Neither of the above are valid reasons for evaluating an employee.

38. Disciplinary action should be taken:
   A. in private
   B. in weekly meeting
   C. in public
39. In what setting should evaluation reviews take place?
   A. During department or store meetings
   B. In small groups
   C. In private

40. When evaluating an employee, the supervisor should do which of the following?
   A. Emphasize strengths which could help the employee grow
   B. Emphasize weaknesses only
   C. Ask that employee traits be changed

41. The most drastic form of disciplinary action is:
   A. reprimand
   B. demotion
   C. discharge

42. Four basic rules to apply in discipline are:
   A. immediacy, appealing, warning, and impersonality
   B. immediacy, advance warning, consistency, and impersonality
   C. immediacy, impersonality, consistency, and harassment

43. Which of the following is a primary purpose of employee evaluation?
   A. Identify employees that should be released
   B. Motivate employees
   C. Relax the employees

44. Discipline action should always be applied by:
   A. top management
   B. immediate supervisor
   C. union representative

45. The employee should be evaluated based upon which of the following?
   A. Standards established for the individual when hired
   B. Standards established for all employees doing the same job
   C. Both A and B

46. In order to minimize frustrations, if an employee's personality appears to conflict with his or her assigned tasks, it is best to do which of the following?
   A. Attempt to assign the employee to tasks that fit his or her personality
   B. Let the employee go so as to avoid future conflicts
   C. Keep the employee on the same tasks in hopes that his or her personality will adapt to the job
47. Which of the following provides for effective morale?
   A. Emphasis on competition among individuals
   B. Emphasis on conflicts to prevent employees from being too relaxed
   C. Emphasis on employees working together as a team

48. When an employer hires a disadvantaged or slow employee, he or she should do which of the following?
   A. Expect low productivity from the employee
   B. Expect the employee to eventually reach the job's performance standards
   C. Expect the employee to resist training efforts

49. Which of the following is a way to develop pride and self-esteem in the employee?
   A. Give the employee freedom to participate in decision-making situations
   B. Explain thoroughly the responsibilities that the employee has and what is expected of him or her
   C. Formally evaluate the employee frequently

50. Research has found which of the following to be valid?
   A. Supervisors generally know what employees want most from their jobs.
   B. Supervisors generally do not know what employees want most from their jobs.
   C. Supervisors need not be concerned with what employees want most from their jobs.

51. Research has found that employees want which of the following the most?
   A. High wages
   B. Full appreciation of work done
   C. Good working conditions

52. Which of the following reflects the type of recognition that should be offered to the employee?
   A. General recognition
   B. Lavish recognition
   C. Recognition over specifics

53. In order to motivate employees, which of the following approaches should be taken by the supervisor?
   A. Praise the employee when the supervisor is sincere
   B. Rarely praise the employee so as to prevent the employee from feeling too confident
   C. Praise the employee frequently over supervisor's general impression of the employee
54. Which of the following seems to help in motivating employees?
   A. Do not tell the employee his/her faults so that s/he will improve on his/her own.
   B. Make the employee feel as if s/he belongs in order to get him/her to want to produce.
   C. Alienate the employee so that s/he will not spend a lot of time talking to other employees and not getting his/her work done.

55. When communicating with employees, which of the following statements is best?
   A. Each employee should be motivated based upon individual differences.
   B. Each employee should be motivated in the same way.
   C. Employees should not be motivated.

56. Which of the following statements is valid in terms of communicating with and motivating employees?
   A. The supervisor must be articulate and have a good command of the language.
   B. The supervisor must follow only the formal communication channels when motivating employees.
   C. The supervisor should want to communicate with the employees.

57. Which of the following is a word that means the same thing as motivation?
   A. Morale
   B. Incentive
   C. Communication

58. A dissatisfaction is usually considered to be a grievance when which of the following exists?
   A. The dissatisfaction is real (valid) and not imaginary (invalid).
   B. The dissatisfaction has been expressed in writing to management and action has been taken on it.
   C. The dissatisfaction is real (valid) or imagined (invalid).

59. The role of the supervisor concerning grievances is which of the following?
   A. A part of the supervisor's job.
   B. The supervisor has no part in grievances—it is the work of the supervisor's superiors.
   C. The supervisor serves as the person providing information to superiors only.

60. Policies are the same as which of the following?
   A. Objectives of the business.
   B. Procedures of the business.
   C. Guides for a course of action.
61. Policies are usually expressed in which of the following manner?
   A. Orally understood
   B. Written statements
   C. Within the written objectives of the business

62. Who usually writes the policies of a business?
   A. Employees
   B. Supervisors
   C. Top management

63. Policies of the business usually apply to employees in which of the following ways?
   A. Employees should not be told what the policies of the business are
   B. Employees should be kept informed as to what the policies of the business are
   C. Employees should be asked to write policies for the business

64. The supervisor should answer questions concerning a grievance in which of the following ways?
   A. In a straightforward and clearly understood manner
   B. In a manner so that the employees do not really understand the decisions
   C. In a formal atmosphere, usually through legal aides or lawyers

65. When should a decision on a grievance occur?
   A. Immediately upon hearing of the grievance so that the employees need not wait and get more upset
   B. After time has passed and the complaint has hopefully been mostly forgotten
   C. After time has been spent listening to employees and gathering facts

66. An effective way for the supervisor to deal with a grievance is to do which of the following?
   A. Avoid the employees in order to lessen the opportunity for conflicts
   B. Listen to the employees' grievances
   C. Issue a statement citing company policies and procedures

67. The first step of the grievance procedure finds which of the following persons primarily involved?
   A. Supervisor
   B. Personnel Manager
   C. Company Manager
APPENDIX I

Experimental Study Pretest
ADULT STUDY
PRE-TEST

Select the BEST answer:

1. Research has found which of the following to be valid?
   A. Supervisors generally know what employees want most from their jobs.
   B. Supervisors generally do not know what employees want most from their jobs.
   C. Supervisors generally are not concerned with what employees want most from their jobs.

2. The formal evaluation of an employee's job performance is usually made by:
   A. his/her co-workers
   B. the corporation president
   C. the immediate supervisor

3. In what setting should evaluation reviews take place?
   A. in department or store meetings
   B. in small groups
   C. in private

4. Evaluation of a training program should be based primarily upon which of the following?
   A. The degree to which the original goal or objective was achieved
   B. Employee attitudes toward their training program
   C. The type of training method used

5. Which of the following is an important objective of employee evaluation?
   A. Identify employees that should be released
   B. Motivate employees
   C. Relax the employees

6. What should an employer expect when a disadvantaged or slow employee has been hired?
   A. The employee will be low in productivity
   B. The employee will eventually reach the job's performance standards
   C. The employee will resist training efforts

7. What is the relation between anxieties and orientation of most new employees?
   A. Anxiety of new employees interferes with the orientation
   B. Anxiety of new employees has no effect on the orientation process
   C. Anxiety of new employees is reduced by the orientation process
8. What is the recommended time interval for appraisal of employees?
   A. Once every two years
   B. Once a year
   C. Once a month

9. Which of the following reflects the type of recognition that should be offered to the employee?
   A. General recognition
   B. Lavish recognition
   C. Recognition over specifics

10. Which of the following is a consideration when choosing a training method?
    A. Type or level of the job
    B. Objectives of the business
    C. Personality traits of the trainer

11. Research on time spent to reduce anxiety at the beginning of the orientation period has shown that:
    A. it makes no difference in the productivity and absenteeism of new employees
    B. it results in greater productivity and reduced personnel costs
    C. it does not reduce training costs.

12. Which of the following training methods is used when the actual equipment is not available but similar devices are used?
    A. Simulation
    B. On-the-job
    C. Demonstration

13. Which of the following training approaches provides for handling the maximum number of trainees with a minimum number of instructors?
    A. Individualized instruction
    B. Classroom instruction
    C. Conference

14. Which of the following is a word that is the closest in meaning to "motivation?"
    A. Morale
    B. Incentive
    C. Communication
15. Regardless of who does the orientation of new employees, who actually has the responsibility for the task?

A. Worker
B. Supervisor
C. Peers

16. A formal orientation program should provide new employees with all but one of the following items. Which item should it NOT include?

A. Information concerning safety rules
B. Elaboration over policies and procedures of the business
C. Description of the company

17. Policies are usually expressed in which of the following manner?

A. Oral statements
B. Written statements
C. Within the written objectives of the business

18. Employee evaluation usually does NOT serve as a basis for which of the following?

A. Leave, vacations
B. Promotion, terminations
C. Salary adjustments, transfers

19. Which of the following statements is valid in terms of communicating with and motivating employees?

A. The supervisor must be articulate and have a good command of the language
B. The supervisor must follow only the formal communication channels when motivating employees
C. The supervisor should want to communicate with the employees

20. Which of the following training methods is based upon actual, realistic experiences which the students interpret and analyze?

A. Case study
B. Discussion
C. Simulation

21. When motivating employees, which of the following statements is best?

A. Each employee should be motivated based upon individual differences
B. Each employee should be motivated in the same way
C. Each employee should be motivated continuously.
22. The use of a check list in orienting new employees insures:
   A. that the new employee has something to follow for the first few days
   B. that important items are not overlooked by the supervisor in the orientation
   C. that the company is well managed

23. Policies are the same as which of the following?
   A. Objectives of the business
   B. Procedures of the business
   C. Guides for a course of action

24. Which of the following training methods usually requires a high degree of employee participation?
   A. Demonstration
   B. Discussion
   C. Lecture

25. The most frequently used methods of training are:
   A. simulators and other training devices, computer assisted instruction
   B. job instruction training, conference or discussion, apprenticeship training
   C. Computer assisted instruction, apprenticeship training, coaching and lecture

26. Which of the following is a suggestion to keep in mind when using records to analyze and supervise employees?
   A. Records need not be confidential
   B. Records should be used as the sole basis for a final decision on personnel
   C. Records should be checked for completeness, accuracy and updated periodically

27. A good orientation program is based upon which of the following?
   A. A variety of methods
   B. One specific method
   C. Classroom training

28. If the personality of an employee appears to conflict with the assigned task(s), which of the following actions is suggested in order to minimize frustrations?
   A. Assign the employee to task(s) that fit his/her personality.
   B. Let the employee go so as to avoid future conflicts
   C. Keep the employee on the same tasks in hopes that his/her personality will adapt to the job
29. Which of the following is a common difficulty in filling out evaluation forms?

A. Finding the time to complete the form
B. Understanding the format of the evaluation form
C. Interpreting what is meant by such terms as excellent, good, average or poor

30. Records may be used to analyze and supervise the work of employees in which of the following ways?

A. Records should not be used for evaluating work - supervisors should use observations and evaluations of co-workers
B. For comparison purposes to see if an individual has improved his/her work over a period of time
C. As a source of information to co-workers to compare their work to others

31. In order to motivate employees, which of the following approaches should be taken by the supervisor?

A. Offer praise when it is sincere
B. Rarely praise the employee so as to prevent the employee from feeling too confident
C. Praise the employee concerning the supervisor's general impression of the employee

32. Which of the following provides for effective morale?

A. Emphasis on competition among individuals
B. Emphasis on conflicts to prevent employees from becoming too complacent
C. Emphasis on employees working together as a team

33. The content (subject matter) to be included in the training program should be based primarily upon which of the following?

A. Cost of the training method
B. Tasks performed on the job
C. Abilities of the individuals to be trained

34. A primary purpose of the orientation program is to:

A. Recruit the employee
B. Relieve anxieties of the employee
C. Evaluate the employee
APPENDIX J

Experimental Study Post-Post
ADULT STUDY
POST-TEST

Select the best answer:

1. The most commonly used method of training employees is:
   A. classroom training.
   B. on the job training.
   C. conference or discussion.

2. Evaluation of a training program should be based primarily upon which of the following?
   A. The type of training method used
   B. The degree to which the original goal or objective was achieved
   C. Employee attitudes toward their training program

3. What should an employer expect when a disadvantaged or slow employee has been hired?
   A. The employee will resist training efforts.
   B. The employee will be low in productivity.
   C. The employee will eventually reach the job's performance standards.

4. What is the recommended time interval for appraisal of employees?
   A. once a year.
   B. once a month.
   C. once every two years.

5. Which of the following statements is valid in terms of communicating with and motivating employees?
   A. The supervisor should want to communicate with the employees.
   B. The supervisor must be articulate and have a good command of the language.
   C. The supervisor must follow only the formal communication channels when motivating employees.
Select the best answer:

6. In order to motivate employees, which of the following approaches should be taken by the supervisor?
   A. Rarely praise the employee so as to prevent the employee from feeling too confident.
   B. Praise the employee concerning the supervisor's general impression of the employee.
   C. Offer praise when it is sincere.

7. When should orientation to the job begin for a new employee?
   A. First day on the job
   B. After the employee has been able to "settle down" (second day)
   C. Second week of work

8. The use of a checklist in orienting new employees insures:
   A. that the company is well managed.
   B. that the new employee has something to follow for the first few days.
   C. that important items are not overlooked by the supervisor in the orientation.

9. When evaluating an employee, the supervisor should do which of the following?
   A. Emphasize strengths which could help the employee grow
   B. Emphasize weaknesses only
   C. Ask that employee traits be changed

10. Which of the following personnel has the most important role in the orientation program?
    A. Co-worker
    B. Personnel director
    C. Supervisor

11. Records may be used to analyze and supervise the work of employees in which of the following ways?
    A. As a source of information to co-workers to compare their work to others.
    B. Records should not be used for evaluating work - supervisors should use observations and the evaluation of co-workers.
    C. For comparison purposes to see if an individual has improved his/her work over a period of time.
Select the best answer:

12. Which of the following is a common difficulty in filling out evaluation forms?

A. Interpreting what is meant by such terms as excellent, good average or poor.
B. Understanding the format of the evaluation form.
C. Finding the time to complete the form.

13. In general, disciplinary action should be taken:

A. in private.
B. in weekly meeting.
C. in public.

14. Job orientation programs are primarily concerned with which of the following?

A. In-depth introduction to the organization, its purpose and procedures
B. An overview of the company and policies and procedures as they concern the new employee
C. The projected earnings of the company

15. The content (subject matter) to be included in the training program should be based primarily upon which of the following?

A. Tasks performed on the job
B. Abilities of the individuals to be trained
C. Cost of the training method

16. Which of the following is a disadvantage associated with programmed instruction?

A. Each trainee learns at his/her own pace.
B. More instructors are needed.
C. Cost in preparing programs is high.

17. Which of the following seems to help in motivating employees?

A. Do not tell employees their faults so that they will improve on their own.
B. Make the employees feel as if they belong in order to get them to want to produce.
C. Alienate the employees so that they will not spend a lot of time talking to other employees and not getting their work done.
18. A training program which combines practical on-the-job experience with formal classes is called:
   A. competency training.
   B. cooperative training.
   C. programmed instruction.

19. Which of the following is a consideration when choosing a training method?
   A. Objectives of the business
   B. Personality traits of the trainer
   C. Type or level of the job

20. According to a survey in 1946, which of the following job factors did employees want most?
   A. High wages
   B. Full appreciation of work done
   C. Good working conditions

21. The employee should be evaluated based upon which of the following?
   A. Standards established for the individual when hired.
   B. Standards established for all employees doing the same job.
   C. Standards established for all departments in the business.

22. A sound orientation program requires which of the following?
   A. a plan.
   B. an organization chart.
   C. a lot of activities.

23. Which of the following provides for effective morale?
   A. Emphasis on conflicts to prevent employees from becoming too complacent.
   B. Emphasis on employees working together as a team.
   C. Emphasis on competition among individuals.

24. Which of the following training methods is based upon actual, realistic experiences which the students interpret and analyze?
   A. Discussion
   B. Case study
   C. Simulation
25. Proper job orientation has a relationship to:
   A. amount of salary required.
   B. the overtime put in by the new employee.
   C. future job performance.

26. Who should evaluate the employee's job performance in a large company?
   A. The manager
   B. The employee's immediate supervisor
   C. A co-worker

27. Which of the following reflects the types of recognition that should be offered to the employee?
   A. Recognition over specifics
   B. General recognition
   C. Lavish recognition

28. Which of the following best reflects when formal employee evaluation should occur?
   A. on a regular basis
   B. on a continuous basis
   C. on an occasional basis

29. Which of the following statements is most valid?
   A. Large companies usually use the same number of training methods as small businesses.
   B. Certain methods of instruction are best for most training programs.
   C. Some methods of instruction may be better for a particular training program than others.

30. Research has found which of the following to be valid?
   A. Supervisors generally do not know what employees want most from their jobs.
   B. Supervisors generally are not concerned with what employees want most from their jobs.
   C. Supervisors generally know what employees want most from their jobs.
31. Which of the following is a suggestion to keep in mind when using records to analyze and supervise employees?

A. Records should be checked for completeness, accuracy and updated periodically.
B. Records need not be confidential.
C. Records should be used as the sole basis for a final decision on personnel.

32. Which of the following is a word that is the closest in meaning to "motivation?"

A. Incentive
B. Communication
C. Morale

33. Which of the following is recommended to develop pride and self-esteem in the employee?

A. Give the employee freedom to participate in decision-making situations.
B. Explain thoroughly the responsibilities of and expectations from the employee.
C. Formally evaluate the employee frequently.

34. What is the most drastic form of disciplinary action?

A. Demotion.
B. Discharge
C. Reprimand.
APPENDIX K

Instructor Questionnaire
INSTRUCTOR QUESTIONNAIRE

Name ________________________________

Age:  17 or younger ____  43-47 ____
     18-22 ____  48-52 ____
     23-27 ____  53-57 ____
     28-32 ____  58-62 ____
     33-37 ____  63 or over ____
     38-42 ____

Which of the following is the highest level of education you have achieved? (circle one)

High School:  8 9 10 11 12
College:  1 2 3 4  Major Area of Study _______________________
Advanced Education:  Degree _______________________
                              Major Area of Study _______________________

Present Full-Time Position: ____________________________
Name of Company/School: ____________________________

Approximately how many adult education courses have you taught? ____________
Over how many years or months have you taught adult education? ____________
Are you presently or have you ever been certified to teach in any state? ____________

If yes, in what subject areas? ____________________________

Teaching Experience

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APPENDIX L

Student Questionnaire
STUDENT QUESTIONNAIRE

Sex: Male ____ Female ____ Code Number ________

Age: 17 or younger _______ 43-47 _______
     18-22 _______ 48-52 _______
     23-27 _______ 53-57 _______
     28-32 _______ 58-62 _______
     33-37 _______ 63 or over _______
     38-42 _______

Which of the following is the highest level of education you have achieved? (circle one)

High School: 8 9 10 11 12
College: 1 2 3 4 Major Area of Study: ____________
Advanced Education: Degree ____________________
     Major Area of Study _______________________

Total years of work experience toward occupation for which you are training: ________

Do you have supervisor or management experience? Yes ____ No ___
If so, how many years and describe the experience:
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Have you had educational training in the following areas:
Employee Training, Employee Evaluation, Employee Morale and Motivation?
Yes ____ No ____ If so, please explain ______
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Were you enrolled in a high school distributive education program? _______
Have you ever been enrolled in a post-secondary distributive education program?
Are you currently employed? Yes ____ No ___
If you are presently employed, why are you enrolled in this course? (check as many as you wish)

- To prepare for a higher-level job in the same or another company
- To update your knowledge and skills for your present job
- To upgrade your knowledge and skills so that you will become more productive in your present job
- To refresh your memory (if you have recently returned to work after an absence)
- To prepare for a new job in an occupation other than your present one - please specify the occupation for which you are preparing:
  ____________________________
  ____________________________
  ____________________________
- Other - please explain ________________
  ____________________________

If you are not presently employed why are you enrolled in this course? (check as many as you wish)

- To prepare for employment in the following occupation: ________________________
  (please specify occupation)
- To obtain a high school diploma
- Other - please explain ________________
  ____________________________
APPENDIX M

Student Competency Record
Competency 097 - Knowledge of how to communicate with others in order to motivate them to work willingly.

Time to successfully achieve this competency (in minutes as best you can) _______________________

Pretest passed? Yes____ No____ If you checked no, which learning activities were completed?

Individual #1 ___ Group #3 ___ Service Station Group ___
Individual #2 ___ Group #4 ___ Wholesaling Group ___

Competency 604 - Knowledge of how to maintain a working environment where employees can have a sense of security and reasonable freedom from worry.

Time to successfully achieve this competency (in minutes as best you can) _______________________

Pretest passed? Yes____ No____ If you checked no, which learning activities were completed?

Individual #1 ___ Group #3 ___ Hotel/Motel Individual ___ Service Station Group ___
Individual #2 ___ Group #4 ___ Hotel/Motel Group ___ Variety Store Individual ___
                    Service Station Individual ___ Variety Store Group ___
                    Wholesaling Individual ___
Competency 605 - Knowledge of how to help each employee have a feeling of pride in his company and the worthwhileness of his work.

Time to successfully achieve this competency (in minutes as best you can) ________________

Pretest passed? Yes ____ No ____ If you checked no, which learning activities were completed?

Individual #1 ____ Group #3 ____ Hotel/Motel Individual ____ Service Station Group ____

Individual #2 ____ Group #4 ____ Hotel/Motel Group ____ Variety Store Individual ____

Service Station Individual ____ Variety Store Group ____

Competency 606 - Knowledge of the ways to make job orientation for new employees friendly, skillful and adequate.

Time to successfully achieve this competency (in minutes as best you can) ________________

Pretest passed? Yes ____ No ____ If you checked no, which learning activities were completed?

Individual #1 ____ Group #3 ____ Hotel/Motel Group ____

Individual @ ____ Group #4 ____ Service Station Group ____
Competency 607 - Knowledge of the methods of training which can be used such as telling, showing, demonstration, and dramatization.

Time to successfully achieve this competency (in minutes as best you can) ______________________

Pretest passed?  Yes ____ No ____  If you checked no, which learning activities were completed?

Individual #1 ___  Group #4 ___  Hotel/Motel Individual ___

Individual #2 ___  Group #5 ___  Service Station Group ___

Individual #3 ___

Competency 610 - Knowledge of the store's procedures for evaluating employees.

Time to successfully achieve this competency (in minutes as best you can) ______________________

Pretest passed?  Yes ____ No ____  If you checked no, which learning activities were completed?

Individual #1 ___  Group #3 ___  Department Store Individual ___

Individual #2 ___  Group #4 ___  Department Store Group ___

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APPENDIX N

Human Subjects Approval and Related Materials
Submission Date: February 17, 1978

Meeting Date: February 24, 1978

The research protocol entitled "Experimentation and Further Validation of the IDEC Competency Based Instructional Systems in Adult, Post-Secondary, and Teacher-Education" by Terry M. Williams/Robert G. Berns

Protocol No.: 788-083

Fac. of Vocational Technical Ed/Education

Department & College

119 Townshend, 1885 Neil Ave Mall
(Campus Address)

presented for review by the Human Subjects Review Committee to ensure the proper protection of the rights and welfare of the individuals involved with consideration of methods used to obtain informed consent and the justification of risks in terms of potential benefits to be gained. The Committee action was:

☐ APPROVED
☒ APPROVED WITH CONDITIONS BELOW
☐ DEFERRED - CONCERNS BELOW
☐ DISAPPROVED
☐ NO REVIEW NECESSARY

SIGNATURE OF COMMITTEE MEMBER

CONDITIONS/COMMENTS:

The subjects were deemed not at risk and the protocol was approved with the following restrictions:

1. If the students are graded, they should be graded in comparison to other students in their same learning group or condition rather than in comparison to students in other learning groups or conditions.

2. Submit the information that will be given by the teachers at the onset of the study.

3. What, if any, provisions are made for students not to participate or to transfer to another section if they so choose?

If you agree to the above conditions, please sign this form in the space(s) provided and return it with any additional information requested to Room 205, Ohio State University Research Foundation, 1314 Kinnear Road, Campus, within one week. Upon such compliance, the approval form will be mailed to you. (In the case of a deferred protocol, please submit the requested information at your earliest convenience. The next meeting of the Committee is two weeks from last meeting date.)

Date 2-28-78 Signature

Robert G. Berns, Ph.D.

(Principal Investigators)

Date ______________ Signature

I. D. Kay (Chairman, Behavioral and Social Sciences Human Subjects Review Committee)
RESEARCH INVOLVING HUMAN SUBJECTS

PROPOSED USE OF HUMAN SUBJECTS: ACTION OF THE REVIEW COMMITTEE

The Behavioral & Social Sciences Review Committee has taken the following action:

1. Approve
2. Approve with Conditions
3. Disapprove

with regard to the employment of human subjects in the proposed research entitled: Experimentation and Further Validation of the IDECC Competency Based Instructional Systems in Adult, Post-Secondary, and Teacher-Education

Terry M. Williams/Robert G. Burns is listed as the principal investigator.

The conditions, if any, are attached and are signed by the committee chairperson and by the principal investigator. If disapproved, the reasons are attached and are signed by the committee chairperson.

It is the responsibility of the principal investigator to retain a copy of each signed consent form for at least four (4) years beyond the termination of the subject's participation in the proposed activity. Should the principal investigator leave the University, signed consent forms are to be transferred to the Human Subjects Review Committee for the required retention period.

Date February 24, 1978 Signed

(Chairperson)
REVIEW OF RESEARCH, DEVELOPMENT, OR RELATED ACTIVITIES INVOLVING HUMAN SUBJECTS

SUMMARY SHEET

PROTOCOL NO. 

PRINCIPAL INVESTIGATOR(S): Dr. Terry M. Williams, Project Director/P. R. E. G. Berns. (if graduate student, list adviser's name first) Project Coordinator

IDECC/Faculty of Vocational-Technical Education/College of Education (department & college)

119 Townsend Hall/1885 Neil Avenue Hall (faculty member's campus mailing address)

PROTOCOL TITLE (INCLUDE PROPOSAL TITLE FOR EXTERNALLY-FUNDED ACTIVITIES IF THE TITLE IS DIFFERENT FROM THE PROTOCOL TITLE): Experimentation and Further Validation of the IDECC Competency Based Instructional Systems in Adult, Post-Secondary, Secondary and Teacher-Education

WHEN SUBMITTING A PROPOSAL TO THE BEHAVIORAL AND SOCIAL SCIENCES HUMAN SUBJECTS REVIEW COMMITTEE, WE WOULD APPRECIATE YOUR SUPPLYING THE FOLLOWING INFORMATION IN SUMMARY FORM. HAVING THESE DETAILS PRIOR TO READING AND REVIEWING THE PROTOCOL CAN EXPEDITE THE PROCESS. PLEASE BE AS SPECIFIC AS POSSIBLE SUCH THAT THE READER CAN HAVE A RATHER COMPLETE AND ACCURATE IDEA OF EXACTLY WHAT YOUR SUBJECTS WILL EXPERIENCE WHEN THEY PARTICIPATE IN YOUR RESEARCH, AS WELL AS KNOW THE PROTECTIONS THAT HAVE BEEN INCLUDED TO SAFEGUARD THE SUBJECT AGAINST ADVERSE CONSEQUENCES (E.G., ARE THEY FREE TO NOT PARTICIPATE IF THEY CHOOSE, DO THEY OR THEIR PARENTS KNOW EXACTLY WHAT THEY ARE GETTING INTO BEFORE THEY ARE COMMITTED TO PARTICIPATE; WILL BOTH THEIR PARTICIPATION AND ANY COLLECTED DATA BE COMPLETELY CONFIDENTIAL).

1) IN A SENTENCE OR TWO, BRIEFLY DESCRIBE WHY THE PROPOSED PROJECT IS OF INTEREST. THE INTENT OF THIS QUESTION IS TO GIVE THE REVIEWER A BRIEF IDEA OF THE BACKGROUND AND PURPOSE OF THE RESEARCH.

The purpose of this project is to further develop and validate the IDECC System of learning. The project will evaluate through experimental research the IDECC competency based adult instructional approach.

2) BRIEFLY DESCRIBE EACH OF THE DIFFERENT CONDITIONS OR MANIPULATIONS TO BE INCLUDED WITHIN THE STUDY.

The teaching approach will be manipulated. One approach will be traditional based upon lesson plans formulated by instructors during a workshop using such traditional methods as lecture and discussion. The second approach will be the IDECC systematic approach based upon competency packets such as the attached competency packet.

3) WHAT IS THE NATURE OF THE MEASURES OR OBSERVATIONS THAT WILL BE TAKEN IN THE STUDY?

A written objective cognitive pretest, a written objective cognitive posttest, and a 100-item written vocabulary ability test will be administered to each subject participating in the study. Also, a brief background questionnaire will be administered to the instructors and subjects.

4) IF ANY QUESTIONNAIRES, TESTS, OR OTHER INSTRUMENTS ARE TO BE USED, PLEASE PROVIDE A BRIEF DESCRIPTION AND EITHER INCLUDE A COPY OR INDICATE APPROXIMATELY WHEN A COPY WILL BE SUBMITTED TO THE COMMITTEE FOR REVIEW.

Two brief background questionnaires are attached, one for the instructors and one for the subjects. Questions include age, sex, work experience, etc. A pretest and a posttest will be written based upon the items on the attached sheet. All items will be multiple-choice. The short ability test (continued on back)
4. (continued), test to be used is a Quick Word Test, a vocabulary test developed by Borgatta and Corsini. Attached is a copy of the instructor's questionnaire, student's questionnaire, test items and ability test.
5) Will the subjects encounter the possibility of either psychological, social, physical or legal risk?
☐ yes  ☐ no  If so, please describe.

6) Will any stress be involved in the study?  ☐ yes  ☐ no  If so, please describe.

7) Will the subjects be deceived or misled in any way?  ☐ yes  ☐ no  If so, please describe and include a statement regarding the nature of the debriefing.

8) Will there be any probing for information which an individual might consider to be personal or sensitive?  ☐ yes  ☐ no  If so, please describe.

The background questionnaire and Quick Word Test might be considered to be personal. However, strict rules of confidentiality will be enforced. Also, these will be analyzed and scored in the IDECC office, away from the sites.

9) Will the subjects be presented with materials which they might consider to be offensive, threatening or degrading?  ☐ yes  ☐ no  If so, please describe.

10) Approximately how much time will be demanded of each subject?  5 - 10 Hours

11) Who will be the subjects in this study? How will the subjects for this study be solicited or contacted?

Students enrolled in 16 adult distributive education classes from approximately 12 states. They will be contacted through their instructors.

12) What steps will be taken to insure that the subject’s participation is voluntary? What, if any, inducements will be offered to the subjects for their participation?

The Behavioral and Research Survey form will be signed by each subject. During the workshops, emphasis will be placed upon the necessity of subjects volunteering for the study. Instructors have volunteered to be involved.
The instructor will inform the students that s/he will be in an experiment and will describe the teaching approach, questionnaires and tests before it begins.

14) **What steps have been taken to insure that the subjects give their consent prior to participating?**

- Will a written consent form be used?  □ Yes  □ No  
- If so, please include it.  
- If the subjects are minors, will their parents' consent be obtained?  □ Yes  □ No  
- If so, please include the form and if not, please indicate why not.

(See attached)

All subjects will be over eighteen years of age.

15) **Will any aspect of the data be made a part of any permanent record that can be identified with the subject?**  □ Yes  □ No

16) **Will whether or not a subject participated in a specific experiment or study be made a part of any permanent record available to a supervisor, teacher or employer?**  □ Yes  □ No

17) **What steps will be taken to insure the confidentiality of the data?**

   Instructors will code the names of the subjects and will submit all tests and questionnaires based upon codes and not names. Names will never be identified to the researchers. Furthermore, pretests, posttests and Quick Work Tests will be scored in the IDECC office and not by the instructors.

18) **If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subject or society?**

   No risks are anticipated.

19) **Will any data from files or archival data be used?**  □ Yes  □ No

*************

191
To: Human Subjects Review Committee
From: Dr. Terry M. Williams/Robert G. Berns
Subject: Research Protocol entitled, "Experimentation and Further Validation of the LD/CC Competency Based Instructional Approach in Adult Education" - Protocol Number 78B083
Date: February 28, 1978

In regard to the prescribed restrictions in relation to the above study, the agreements and/or information are as follows:

Restriction #1
Students will not be graded in relation to students in other learning groups or conditions. Should the instructor wish to utilize post-test scores, they will be provided for grading purposes in comparison with the students in their own learning group only.

Restriction #2
See attached for information which will be given to the students at the onset of the study.

Restriction #3
Instructors will be told to provide the following options to the students:

1. Sign the consent form and participate.
2. Instructor will attempt to place the student to a similar adult education course.
3. Refund the student's instructional fee.
4. Enroll the student in the course the next time it is offered and apply the instructional fee to that course.
STUDENT ORIENTATION
ADULT IDECC EXPERIMENTAL STUDY

Purpose
The Interstate Distributive Education Curriculum Consortium (IDECC) consists of 20 states that have developed curriculum for distributive education based upon tasks performed in 69 occupations within the field of marketing and distribution. Competencies needed to perform the tasks were identified and instructional materials were written for use in distributive education programs. Within the past year-and-a-half, the IDECC system has been adapted to the adult level and learning activities were written that are appropriate for adult distributive education courses.

In order to determine the effectiveness of this adult IDECC system, an experimental study is being conducted, which will measure the achievement of adult distributive education students when learning by one of two instructional approaches, traditional and IDECC. Within the study, the two levels of instructional approach involves the teaching of identical curriculum content for a period of five to ten instructional hours. You will be taught using the IDECC approach.

Sixteen classes have been randomly selected from throughout the nation representing twelve states, eight of which are utilizing the IDECC approach, and eight the traditional approach.

Confidentiality
For the purpose of this study, no names will be used. Your scores on the pre-test, post-test, ability test, and the information about you on the questionnaire will never be identified with your name. I have coded each of you with a number so that all information sent to IDECC about you will never reveal your name. Your scores will be used only for statistical purposes.

Testing and Questionnaire
In order to determine how much you actually learned from the teaching approach it will be necessary for you to take a pre-test and a post-test. The pre-test will tell us how much you know about the material now and the post-test will tell us how much you learned during the time the teaching approach was used.

A second evaluation instrument which will be given to you is a short ability test that will only take 10-20 minutes to complete. The purpose of this test is to enable the investigators to determine if one approach of teaching is more effective than another depending on the individual student's ability.

You will be asked to complete a background questionnaire which will enable the investigator to make several comparisons in the study. Again, no names will be used on the questionnaires, only your assigned number. The assigned number is only for the purpose of keeping your data together which is obtained at different times.

Volunteer Participation
You are not obliged to participate in this study. If you wish to withdraw, I will attempt to place you in a similar adult education course nearby. If I am unsuccessful or if this is not satisfactory with you, either your money will be refunded or you may enroll in this course the next time it is offered and your fee will be applied to that course.
The Interstate Distributive Education Curriculum Consortium has asked me to thank you for your participation in this study. Through efforts such as this, educational endeavors pursued by IDECC will mean improvement in the training of personnel for marketing and distribution through distributive education programs. Hopefully, this will result in more efficient and effective practices in retailing, wholesaling and service-type businesses which will serve to benefit the American society.
I consent to serve as an instructor in the research investigation entitled:

Experimentation and Further Validation of the IDECC Competency Based Instructional Approach in Adult Education.

The nature and general purpose of the research procedure have been explained to me. This research is to be performed by or under the direction of Dr. Terry M. Williams, who is authorized to use the services of others in the performance of the research.

I understand that any further inquiries I make concerning this procedure will be answered. I understand my identity will not be revealed in any publication, document, recording, video-tape, photograph, computer data storage, or in any other way which relates to this research. Finally, I understand that I am free to withdraw my consent and discontinue participation at any time following notification to the Project Director.

Signed ________________________________  (Subject)

Date ________________________________  A.M.

Time ________________________________  P.M.

Witness

Investigator - Robert G. Berns
RESEARCH INVOLVING HUMAN SUBJECTS
CONSENT TO SERVE AS A SUBJECT IN RESEARCH

BEHAVIORAL AND SURVEY FORM

I consent to serve as a subject in the research investigation entitled:

Experimentation and Further Validation of the IDECC Competency Based Instructional Approach in Adult Education.

The nature and general purpose of the research procedure have been explained to me. This research is to be performed by or under the direction of Dr. Terry M. Williams, who is authorized to use the services of others in the performance of the research.

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Signed (Subject)

Date ____________________________

Time ____________________________ A.M. P.M.

Witness (Instructor)

Investigator - Robert G. Berns
APPENDIX O

IDCC and Traditional Workshop Agenda
IDECC INSTRUCTORS' WORKSHOP

AGENDA

March 16-18, 1978

Columbus, Ohio

Introductions

Introduction to IDECC

Explanation of Experimental Study and Objectives of the Workshop

Instructor's Role

Forms

Instructor Consent Form
Instructor Questionnaire
Student Consent Form
Student Questionnaire
Expense Voucher

Student Orientation to Study

Student Code Number

Tests

Ability
Pre-Test
Post-Test

Mailing Procedure

IDECC Competency Package

Review of Competency Packages for Experimental Study

Discussion of Competency Packages

Management Techniques

Student Competency Record

Presentation on IDECC Materials

Student Orientation to IDECC

Separation of Student and Learning Manager Sections
Material Dissemination
Reimbursement
Close of Workshop
TRADITIONAL INSTRUCTORS' WORKSHOP

AGENDA

March 9-11, 1978

Columbus, Ohio

Introductions
Introduction to IDECC
Explanation of Experimental Study and Purpose of Workshop
Instructor's Role
Forms
Instructor Consent Form
Instructor Questionnaire
Student Consent Form
Student Questionnaire
Expense Voucher

Student Orientation
Student Code Number
Tests
Ability
Pre-Test
Post-Test

Mailing Procedure

What is Traditional Teaching in Relation to Adult Distributive Education?
Definition
Methods & Activities
Development of Lesson Plan Outline

Development of the Unit of Study
Review Unit Outline
Review Objectives
Review Literature
Decide Activity for Each Objective
Develop Lesson Plans
Review Lesson Plans
Edit Lesson Plans

Reimbursement

Close of Workshop
APPENDIX P
IDECC Instructors "Orientation to IDECC
Learning Activity Package
1. Define competency based education.

2. What is the research upon which IDECC is based?

3. What occupational areas are included in IDECC?

4. List the curriculum sections in IDECC.

5. How does the student know what competencies to develop for their occupation?

6. What are the parts of an IDECC competency packet?
COMPETENCY: Knowledge of competency based education, IDECC as a competency based curriculum and the parts of the IDECC competency learning activity packet.

OBJECTIVES: Define competency based education including three component parts.

Describe the research base of IDECC.

List the seven occupational areas presently existing in the IDECC system.

Identify the ten curriculum areas of IDECC in which competencies are developed.

Identify the sources which relate to the student the competencies which are needed for their chosen occupation.

List the parts of the IDECC competency learning packet including teacher materials.

DIRECTIONS: Select and complete one or more of the following:

Individual #1 Read pages 15 and 21 in the Learning Manager's Guide for IDECC.

Individual #2 Read pages 11, 19 and 50 in Bold New Directions The Ohio Handbook for Effective Use of Laps.

Group #3 Listen to the side tape, Sound of a Different Drummer, designate a chairman to present the group's response to meet the objective in this package.

Group #4 Listen to a presentation on competency based education, IDECC as a competency based curriculum and the parts of the IDECC competency packet. Refer to Handouts #1, 2, A-B, 4.
OCCUPATIONAL CLUSTERS

DEPARTMENT STORE

ADVERTISING MANAGER
ASSISTANT BUYER
ASSISTANT CREDIT MANAGER
ASSISTANT DISPLAY MANAGER
ASSISTANT RECEIVING MANAGER
BUYER
CREDIT INTERVIEWER
CREDIT MANAGER
DEPARTMENT MANAGER
DISPLAY HELPER
DISPLAY MANAGER
PROFESSIONAL SALESPERSON
RECEIVING CLERK
RECEIVING MANAGER
SALESPERSON
STOCKPERSON

FOOD STORE

ASSISTANT MANAGER
CHECKER
GROCERY CLERK
HEAD CASHIER
HEAD GROCERY CLERK
STORE MANAGER

HOTEL/MOTEL

ASSISTANT MANAGER
BELL CAPTAIN
BELLMAN
BUILDING SUPERINTENDENT
CATERING MANAGER
CHEF
EXECUTIVE HOUSEKEEPER
MANAGER
NIGHT AUDITOR
PURCHASING AGENT
RECREATION DIRECTOR
RESERVATION MANAGER
ROOM CLERK
SALES MANAGER
SERVICE SUPERINTENDENT

RESTAURANTS

ASSISTANT MANAGER
BUSBOY
CASHIER
HEAD WAITER
HOSTESS
MANAGER
WAITER/WAITRESS

SERVICE STATION

ASSISTANT MANAGER
ATTENDANT
MANAGER/DEALER

VARIETY STORE

ASSISTANT MANAGER
BUYER
CHECKOUT CASHIER
COMMISSIONED SALESPERSON
HEAD CASHIER/BOOKKEEPER
MARKER
OFFICE CLERK
PERSONNEL MANAGER
SALESPERSON
SECTION MANAGER
SERVICE DESK
STOCKROOM SUPERVISOR
STORE MANAGER

WHOLESALING

BUYER
HEAD BUYER
MERCHANDISER
ORDER SELECTOR
RECEIVING/SHIPPING SUPERVISOR
ROUTE SALESPERSON AND/OR VENDING MACHINE SPECIALIST
SALESMAN
SALES MANAGER
WAREHOUSE MANAGER
IDECC ORIENTATION

TEN CURRICULUM

SECTIONS

Advertising

Communications

Display

Human Relations

Management

Mathematics

Merchandising

Operations

Product / Service Technology

Selling
STUDENT COMPETENCY RECORD
B-3 FOOD STORE--HEAD GROCERY CLERK

COMMUNICATIONS

LAP 1--Interpretations of spoken words
111--Understanding that since interpretations placed on the spoken word vary with different people, one must be careful to speak so that correct interpretation can be made by individual listeners.

LAP 2--Communications
147--Attitude that in distributive occupations the "spoken word" is an important tool of the trade.
164--Development of an awareness that certain thoughtlessly used terms or words can be misinterpreted by the listener.
101--Knowledge of the situations in which to use a technical language or commonly understood language.
120--Skill in using the terminology of distribution and developing a vocabulary descriptive of the product or service being sold.

LAP 3--Use of speech and vocabulary
145--Attitude that poor or awkward grammar lowers store personnel, store image and merchandise value in the estimation of the customer.
152--Development of an appreciation of the value of correct enunciation and pronunciation in speaking.
137--Ability to talk clearly and pleasantly, conveying spirit and enthusiasm in one's speech.
122--Skill in effective use of speech and vocabulary.

LAP 5--Voice and gestures
166--Development of a realization that gestures help convey feelings in spoken communications.
151--Attitude that the tone of voice can express sincere welcome and eagerness to be of service.
150--Development of an awareness that the voice can be used to express conviction and convey confidence.

121--Skill in writing point-of-sale sign copy which is effective in conveying a sales message to the customer.

LAP 11--Developing phrases and sentences
132--Skill in developing descriptive phrases and sentences used in selling the merchandise in the department or a

LAP 12--Translating technical words
143--Skill in translating technical words concerning an item into the language of the customer.

LAP 13--Selecting and using suitable words
123--Skill in selecting and using words suitable to the nature of merchandise or service being sold.

LAP 14--Supplying "front operations" with price changes
171--Attitude that the "front operation" must be supplied price lists (and price changes) on produce items not priced or pre-weighed from the produce department.

LAP 16--Skill in communicating effectively
096--Knowledge of how to address other people in a business manner whether they are customers, fellow employees, visitors or management.
127--Skill in communicating effectively with customers, co-workers and supervisors.

LAP 20--Customer inquiries and store policy
116--Skill in satisfactorily handling customer inquiries for information.
117--Skill in interpreting store policies to customers.

LAP 24--Implementing directions and use of the telephone
119--Skill in listening to and following directions.

LAP 27--Written communications in forms and reports
094--Knowledge of how to use written communications in forms and reports.
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**Note:** The table represents the competencies and their respective grades (X) across different occupational areas.
COMPETENCY LEARNING PACKAGE

STUDENT MATERIALS:

Objective: one or more. For each objective there are—

Pre-test

Learning Activities:

Minimum of four activities
(one of which is self contained)

At least 2 Individual
and
At least 2 Group

Possible Handouts

Post-tests

Learning Manager Materials: Test keys and Learning Manager's Guide

A Competency Package may have one or more objectives if necessary to develop the competency.
1. Define competency based education including three component parts.

2. Describe the research base of IDECC.

3. List the seven occupational areas included in the IDECC system.
   a. 
   b. 
   c. 
   d. 
   e. 
   f. 
   g. 
4. List the ten curriculum sections of IDECC in which competencies may be developed.
   a. 
   b. 
   c. 
   d. 
   e. 
   f. 
   g. 
   h. 
   i. 
   j. 

5. Name two sources which may guide the student in determining the competencies to develop for their chosen occupation.
   a. 
   b. 

6. List the parts of the IDECC competency packet including the teacher materials.
APPENDIX Q

IDECC Instructor Assignment Sheet
Objective(s)

The student will indicate one of two reasons proper employee orientation is necessary to insure future job performance and discuss two of four approaches a supervisor may use to orient a new employee.

The student will be able to identify a minimum of ten points/steps that will assure efficiency in job orientation training.

The student will indicate a knowledge and understanding of ten training methods.

The student will demonstrate the ability to identify most appropriate methods of training an individual for the position.

The student will demonstrate knowledge and understanding of a store's procedure for evaluating employees.

The student will be able to identify three specific suggestions one should keep in mind when using records to analyze and supervise the work of employees at different levels.

The student will be able to name a minimum of three guides/steps he would use when correcting an employee.

The student will indicate a knowledge and understanding of four ways to maintain a working environment which offers security and freedom from worry for employees.

The student will indicate an understanding of the factors/ways of developing employee pride.

The student will demonstrate a knowledge of how to communicate with others in order to make them work willingly.
COMPETENCY 606

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?
2. What problems may arise in the use of this activity?
3. Implementation strategies

Individual #1:

Individual #2:
Competency 606 (continued)

Group #3:

Group #4:

Hotel/Motel Group:

Service Station Group:
COMPETENCY 6.1

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:

Group #3:
Competency 691 (continued)

Group #4:

Hotel/Motel Individual:

Hotel/Motel Group:

Service Station Individual:

Service Station Group:

Wholesaling Individual.
COMPETENCY 607

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:
Competency 607 (continued)

Individual #3:

Group #4:

Group #5:

Hotel/Motel Individual:

Service Station Group:
Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:

Group #3:
Competency 690 (continued)

Group #4:

Group #5:

Group #6:

Wholesaling Individual:

Wholesaling Group:
COMPETENCY 610

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:
Competency 610 (continued)

Group #3:

Group #4:

Department Store Individual:

Department Store Group:
COMPETENCY 664

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:

Group #3:
Competency 664 (continued)

Group #4:

Hotel/Motel Individual:

Hotel/Motel Group:

Restaurant Group:
COMPETENCY 729

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies.

Individual #1:

Individual #2:

Group #3:
Competency 729 (continued)

Group #4:

Service Station Group:

Wholesaling Individual:

Wholesaling Group:
COMPETENCY 604

Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?
2. What problems may arise in the use of this activity?
3. Implementation strategies

Individual #1:

Individual #2:

Group #3:

Group #4:
Competency 604 (continued)

Hotel/Motel Individual:

Hotel/Motel Group:

Service Station Individual:

Service Station Group:

Variety Store Individual:

Variety Store Group:

Wholesaling Individual:
LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #?:

Group #3:

Group #4:
Competency 605 (continued)

Hotel/Motel Individual:

Hotel/Motel Group:

Service Station Individual:

Service Station Group:

Variety Store Individual:

Variety Store Group:
Competency:

Objective:

LEARNING ACTIVITIES:

Comment on the following:

1. Is the activity feasible and can the activity be done in my class?

2. What problems may arise in the use of this activity?

3. Implementation strategies

Individual #1:

Individual #2:
Competency 097 (continued)

Group #3:

Group #4:

Service Station Group:

Wholesaling Group:
APPENDIX R

IDECC Orientation Transparency Masters
ORIENTATION TO

DECC

211
WHAT
IS
DISTRIBUTIVE
EDUCATION?
Distributive Education Prepares Students for Occupations in the Field of Marketing and Distribution
WHAT IS IDECC?

INTERSTATE

DISTRIBUTIVE

EDUCATION

CURRICULUM

CONSORTIUM
A GROUP OF STATES THAT JOINED TOGETHER TO DEVELOP A BETTER CURRICULUM FOR DISTRIBUTIVE EDUCATION
10 COMPETENCIES

WILL BE COMPLETED

BY EACH OF YOU

AT YOUR OWN PACE
WHAT

IS THE

PURPOSE

OF THE

IDECC SYSTEM?
WHAT

IS A

COMPETENCY?
JOB SUCCESS DEPENDS ON COMPETENCIES...

KNOWING What to do...KNOWLEDGE

WANTING To do it ... ATTITUDE

and

DOING IT ...SKILL

COMPETENCIES ARE THE KNOWLEDGES, SKILLS, AND ATTITUDES THAT YOU NEED TO PERFORM A SPECIFIC JOB
COMPETENCY BASED EDUCATION

COMPETENCY BASED EDUCATION IS BASED ON IDENTIFIED AND
VALIDATED TASKS FOR OCCUPATIONS.

FROM THOSE TASKS, COMPETENCY STATEMENTS ARE DERIVED.

STUDENTS ARE PROVIDED LEARNING ACTIVITIES WHICH ENABLE
THEM TO DEVELOP THE COMPETENCIES NEEDED TO PERFORM THE TASKS
REQUIRED BY THEIR CHOSEN OCCUPATION.
IDECC is a competency-based system of learning for marketing and distributive education occupations.
HOW MUCH TIME WILL I HAVE TO ACCOMPLISH EACH OBJECTIVE?

Answer:

- [ ] all are right...
- [ ] none are right...
- [ ] Cher is super...
- [x] As much time as you need

Each of us accomplishes different tasks at different rates of speed.

What is IMPORTANT is that you finish the task accurately; not that you finish before or after your classmates.

DO YOUR THING ACCURATELY... WITHIN A REASONABLE TIME... & LET YOUR CLASSMATES DO THE SAME...
'Good morning, Learning Manager' (L.M.)
Your DE Teacher-Coordinator will become a Learning Manager (LM)

THERE WILL BE A LOT OF CHANGES IN YOUR DE CLASS

The major responsibility for learning is now up to you

The LM Will Help You:
- PLAN
- GET ORGANIZED
- ASSUME RESPONSIBILITIES
- EVALUATE YOUR PROGRESS
IDECC IS NOT JUST WORKING ALONE

You may want to have others help you

You may want to work with other students who are working on the same material you are working on

You may be working with the whole class if your Learning Manager wants to cover something that concerns all of you

Whichever Way You Go... REMEMBER...

TIME IS THE MOST PRECIOUS THING YOU HAVE, DON'T WASTE IT
COMPETENCY LEARNING PACKAGE

STUDENT MATERIALS:

Objective: one or more. For each objective there are---

Pre-test

Learning Activities:

Minimum of four activities
(one of which is self contained)

At least 2 individual

And

At least 2 group

Possible Handouts

Post-tests

Learning Manager Materials: Test keys and Learning Manager's Guide

A Competency Package may have one or more objectives if necessary to develop the competency.
SYSTEM FOR DEVELOPING A COMPETENCY

PRE-TEST

PASS
GO ON TO NEXT COMPETENCY

NO PASS
SELECT LEARNING ACTIVITY

COMPLETE LEARNING ACTIVITY

TAKE POST-TEST

PASS
RECORD COMPETENCY
GO TO THE NEXT COMPETENCY

NO PASS
STUDENT COMPETENCY RECORD

Competency 605 - Knowledge of how to help each employee have a feeling of pride in his company and the worthwhileness of his work.

Time to successfully achieve this competency (in minutes as best you can) ________________

Pretest passed? Yes __ No __ If you checked no, which learning activities were completed?

Individual #1 ___ Group #3 ___ Hotel/Motel Individual ___ Service Station Group ___
Individual #2 ___ Group #4 ___ Hotel/Motel Group ___ Variety Store Individual ___
 ___ Service Station Individual ___ Variety Store Group ___

Competency 606 - Knowledge of the ways to make job orientation for new employees friendly, skillful and adequate.

Time to successfully achieve this competency (in minutes as best you can) ________________

Pretest passed? Yes __ No __ If you checked no, which learning activities were completed?

Individual #1 ___ Group #3 ___ Hotel/Motel Group ___
Individual #2 ___ Group #4 ___ Service Station Group ___

Competency 607 - Knowledge of the methods of training which can be used such as telling, showing, demonstration, and dramatization.

Time to successfully achieve this competency (in minutes as best you can) ________________

Pretest passed? Yes __ No __ If you checked no, which learning activities were completed?

Individual #1 ___ Group #4 ___ Hotel/Motel Individual ___
Individual #2 ___ Group #5 ___ Service Station Group ___
Individual #3 ___
APPENDIX 3

Traditional Instructors Assignment Sheet

-237

263
<table>
<thead>
<tr>
<th>Topic</th>
<th>Personnel Management</th>
<th>Supervision</th>
<th>Management-Minded Supervision</th>
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<tr>
<td>Employee Evaluation</td>
<td>pp. 221-238</td>
<td>pp. 222-233</td>
<td>pp. 295-313</td>
</tr>
<tr>
<td>Employee Morale &amp; Motivation</td>
<td>pp. 86-90</td>
<td>pp. 111-115</td>
<td>pp. 143-160</td>
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<td></td>
<td>pp. 240-262</td>
<td>pp. 344-352</td>
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<td>pp. 286-303</td>
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<td>pp. 313-326</td>
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<td></td>
<td>pp. 409-435</td>
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</tbody>
</table>

**RESOURCES**


APPENDIX T

Traditional Approach Lesson Plans and Related Materials
Unit: Employee Training Evaluation and Motivation

Objective: The student will indicate one of two reasons proper employee orientation is necessary: to insure future job performance and discuss two of four approaches a supervisor may use to orient a new employee.

Introduction: Every employee or potential employee has certain psychological needs which must be met. With new employees the most important need is the need for security and with the existing employee the need is for self-esteem gained through limited participation in the management process.

In both cases the goal of the supervisor is the development of all employees toward increased employee contribution to organizational goals.

Let's look at four ways of approaching the orientation of a new employee and the necessary content in each.

Method: Mini-Lecture - Present the approaches in Handout.

Learning Activity: Discussion - "What content must each approach have to satisfy the need for security in a new employee?"

(10 mins.) Students should eventually cover these items:
1. Introduction by management to people, facilities and job.
2. Knowledge of the conditions of employment.
3. Pay and Benefits.
4. Follow-up procedure.

Resources: Handouts on Four Approaches Page 217, Supervision, Page 174, Personnel Management

Summary: "Employees can only achieve on a job after the basic need of security or "freedom from anxiety" is satisfied. This need can be satisfied through thinking about orientation from the standpoint of four areas of necessary content:
1. Introducing the people, facilities and job
2. Coverage of working conditions.
3. Coverage of pay and benefits.
4. Following up.
It is important to see that management is the agent that performs this function. Only then can the new employee become a producing member of the work force."
FOUR APPROACHES TO NEW EMPLOYEE ORIENTATION

Informal
(More easily adaptable to small organizations)

1. Supervisor (Manager or Owner) - Employee private interview

2. Pamphlets or written information
(Adaptable to somewhat larger organizations, yet still affordable over a wide range of organization size.)

Formal
(Usually associated with larger organizations)

1. Formal orientation - meeting of new employees in groups. (Often found in orientation of higher-level employees)

2. Formalized detailed checklist extending overtime. Checklist should be signed by employee. Approach is used extensively for production and clerical employees.

Unit: Employee Training Education and Motivation

Lesson Topic: Orientation - 10-15 minutes

Objective: The student will be able to identify a minimum of ten points/steps that will assure efficiency in job orientation training.

Introduction: "In the previous unit we discussed approach to job orientation and told how at least two of these approaches could satisfy the need for security in a new employee. Now I want to show you an actual checklist used by the General Electric Company for orienting new employees. After analyzing the overall make-up of the example, I will want you to list ten steps that you would take in orienting a new employee regardless of which orientation approach you use."

Method: Mini-lectures which define and classify content areas according to time frame.

Learning Activity:
A. Student will indicate in each box in Handout 1 which of the four content areas is represented.
B. Student will prepare on Handout 2 an Employee Checklist for job orientation on a job they have experienced.

Resources: Two handouts, the first being a copy of cable on page 175 of Personnel Management with a list of the four content areas. These areas were discussed in the previous objective in the unit on the need for orientation. Also a second handout with the four areas of orientation content is presented with lines on which student can list at least 10 steps in his/her own employee orientation list.

Summary: "The mechanics of any approach to new employee orientation should have (1) introduction of people, places and work, (2) to working conditions of employment (3) Pay and benefits (4) a good follow-up procedure. If we remember some of these major ones, we can easily construct an informed checklist for ourselves of at least ten steps required for job orientation."
CHECKLIST FOR HELPING THE NEW EMPLOYEE GET STARTED

WHEN EMPLOYEE FIRST REPORTS:

- Welcome to Company and Job.
- Show locker or coat rack and wash room.
- Acquaint employee with cafeteria and other lunch facilities.
- Review security regulations including badge system.
- Show work place.
- Review rate, hours, use of time card.
- Briefly describe group’s work.
- Introduce to fellow workers.
- Start employee on job, remembering the four steps of instruction.
  1. Prepare the worker.
  2. Present the operation.
  3. Try out his performance.
  4. Follow up.
- Briefly cover main safety rules and use of safety equipment.
- Remind employee to come to you for information and assistance.

LATER DURING FIRST DAY:

- Review pay procedure.
- Discuss parking, car-pools.
- Explain dispensary facilities.
- Review safety rules.
- Briefly tell about work of department and how employee’s job ties in.
- Shortly before quitting time, check with employee on progress and any questions.

DURING FIRST TWO WEEKS:

- Review benefit plans *
  - Insurance and M.B.A.
  - Stock bonus
  - Pension
  - Relief and Loan
  - Suggestion System
- Review items in “Your Guide to the River Works.”
- Check on safety habits.
- Continue to follow up on progress and performance.

* Plans for which employee signed applications in employment office are underlined.

INSTRUCTIONS: Please indicate in each box the general contact area of each item according to the following key:

1. Introduction to people, job and facilities
2. Introduction to working conditions
3. Introduction to pay and benefits
4. Follow-up procedures.

From: Personnel Management, p. 175.
Instructions: Make a list showing items under each category of orientation content. List a total of at least 10 items.

Introduction to people, place and job.

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Introduction to working conditions.

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Introduction to pay and benefits

Follow-up procedures
Unit: Employee Training, Evaluation and Motivation

Lesson Topic: Employee Training

Objective: The student will demonstrate the ability to identify most appropriate methods of training an individual for the position.

Introduction: The results supervisors achieve in production, costs, quality, safety, morale, and methods are proportionate to the quality of the training employees receive when they begin their jobs and while they are on the job. More supervisors than we like to admit have a negative attitude toward training because, they say, it takes so much of their time. Yet we see them taking time to correct mistakes, assign rework, and put out the fires that proper training would have prevented. Unskilled trainers tend to make common errors in teaching people their jobs: feeding too much at one time; telling without demonstrating; showing lack of patience; failure to prepare to instruct; failure to build in feedback; and failure to reduce tension.

Method: Lecture, discussion, exercise


Resources: Table 8-2 Transparency - Personnel Management
Six Step System for Training Handout
Job Training Plan Handout
Psychological Principles Handout

Summary: 1. Make a job training plan for a simple job from your place of employment.
(out-of-class exercise)
PSYCHOLOGICAL PRINCIPLES HANDOUT

MOTIVATION

REINFORCEMENT

MEANINGFUL ORGANIZATION OF MATERIALS

BEHAVIOR MODIFICATION

PRACTICE AND REPETITION

TRANSFER OF TRAINING

WHOLE - VS - PART LEARNING
SIX-STEP SYSTEM FOR TRAINING HANDOUT

1. Prepares the Instructor

2. Orient the Operator

3. Explains the Operation

4. Tests performance

5. Releases the Operator

6. Follows-up
FACTORS THAT SLOW DOWN LEARNING

FATIGUE:

MONOTONY:

DISTRACTIONS:

ANXIETY:
FACTORs TO FACILITATE LEARNING

Repetition:

Arousing Curiosity:

Careful Use of Competition:

Knowing the Knacks of the Job:

Enthusiastic Instruction:

Satisfaction in Accomplishment:
# JOB TRAINING PLAN

<table>
<thead>
<tr>
<th>Job</th>
<th>Estimate of time required</th>
<th>Date and time of training</th>
<th>Location of training</th>
<th>Supplies needed</th>
<th>Tools or equipment</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Job Sequence (What)</th>
<th>Points To Stress (How)</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
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<td>2.</td>
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<td>8.</td>
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</tbody>
</table>
Unit: Employee Training, Evaluation and Motivation
Lesson Topic: Employee Evaluation - Evaluation Procedures
Objective: The student will demonstrate knowledge and understanding of a store's procedure for evaluating employees.

Introduction: Once we have hired and trained the person we expect to fill a job slot, we must then assure ourselves the individual(s) is/are accomplishing what we expect. We can divide the evaluation into formal or informal areas. Generally, the larger the organization, the more formal the evaluation and the smaller the less formal. I will be showing you both methods so you can make your own choice to fit your particular situation.

Method: Lecture, handout, transparencies, case study

Learning Activities:
1. Show and discuss the steps of performance evaluation (fig. 10-1 overhead) (and fig.10-2 -informal)
2. The students will review and discuss the handout (Supervision, pp.225-226,#14-2 and pp.227-228,#14-3)
3. After reviewing the handouts, the students will make a self-evaluation, using the evaluation sheets.

Resources: Transparencies: Personnel Management, p. 228, fig.10-2
Handout: Supervision, p. 225-226, fig. 14-2
Supervision, p.227-228, fig. 14-3
Pass out week before lesson - case study - handout - Management Minded Supervision, p. 295-299 (Burt Hall Case)

On the overhead the following questions will be asked - one at a time.
See ques. p. 299 - 1 thru 4 - Management Minded Supervision

Summary:
1. Show the importance of employee evaluation.
2. Show how an evaluation is/can be accomplished.
3. How problems can arise if not carefully prepared.
Appraise employee's performance in PRESENT ASSIGNMENT. Check (✓) most appropriate square. Appraisers are urged to use freely the "REMARKS" sections for significant comments descriptive of the individual.

1. KNOWLEDGE OF WORK:
   Understanding of all phases of his work and related matters.
   
   Needs instruction or guidance. Has required knowledge of own and related work. Has exceptional knowledge of own and related work.
   
   Remarks: In particular, good on gas engines

2. INITIATIVE:
   Ability to originate or develop ideas and to get things started.
   
   Lacks imagination. Meets necessary requirements Unusually resourceful.
   
   Remarks: Has good ideas when asked for an opinion, but otherwise will not offer them. Somewhat lacking in self-confidence.

3. APPLICATION:
   Attention and application to his work.
   
   
   Remarks:

4. QUALITY OF WORK:
   Thoroughness, neatness, and accuracy of work.
   
   
   Remarks: The work he turns out is always of the highest possible quality.

5. VOLUME OF WORK:
   Quantity of acceptable work.
   
   Should be increased. Regularly meets recognized standards. Unusually high output.
   
   Remarks: Would be higher if he did not spend so much time checking and rechecking his work.

From: Personnel Management, Figure 10-2, p. 228.
# EMPLOYEE APPRAISAL FORMS

**Employer's Name:**

**Occurrence:**

**Satisfactory:** The employee's performance was consistent with the job requirements and met the employer's expectations. The employee demonstrated good performance.

**Fair:** The employee's performance was adequate to meet the job requirements. The employee met all job requirements but did not exceed them.

**Unsatisfactory:** The employee's performance was inadequate to meet the job requirements. The employee failed to meet all job requirements or performed below standard.

**Very Good:** The employee's performance was outstanding, exceeding all job requirements. The employee demonstrated exceptional performance.

**Exceptional:** The employee's performance was exceptional, exceeding all job requirements. The employee demonstrated exceptional performance.

<table>
<thead>
<tr>
<th>RATING ON FACTORS BELOW</th>
<th>UNSATISFACTORY</th>
<th>FAIR</th>
<th>SATISFACTORY</th>
<th>VERY GOOD</th>
<th>EXCEPTIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effectiveness in Dealing With People</strong></td>
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<tr>
<td>Lack of initiative to improve or work independently</td>
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<td>Lack of initiative to improve or work independently</td>
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<td><strong>Personal Efficiency</strong></td>
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<td>Efficiency in performing work assigned to the employee</td>
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<td>Efficiency in performing work assigned to the employee</td>
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<td><strong>Job Knowledge</strong></td>
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<tr>
<td>Knowledge of company's policies and procedures</td>
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<td>Knowledge of company's policies and procedures</td>
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<tr>
<td><strong>Judgment</strong></td>
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<td>Judgment in making sound decisions and taking appropriate actions</td>
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<td><strong>Initiative</strong></td>
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<tr>
<td>Initiative to take initiative in meeting job requirements</td>
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<td><strong>Job Attitude</strong></td>
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<tr>
<td>Attitude towards work is positive and enthusiastic</td>
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<tr>
<td>Attitude towards work is positive and enthusiastic</td>
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<td><strong>Dependability</strong></td>
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<td><strong>Overall Evaluation of Employee Performance</strong></td>
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<tr>
<td>Performance meets or exceeds job requirements</td>
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<td>Performance meets or exceeds job requirements</td>
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</tbody>
</table>

(over)
USE THIS ITEM ONLY IF THE EMPLOYEE IS STILL IN THE LEARNING STAGE ON THE JOB

<table>
<thead>
<tr>
<th>EVALUATION OF TRAINEE PERFORMANCE</th>
<th>UNSATISFACTORY</th>
<th>FAIR</th>
<th>SATISFACTORY</th>
<th>VERY GOOD</th>
<th>EXCEPTIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considering the length of time on the job, how do you rate the employee's performance so far?</td>
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</tbody>
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1. Outstanding abilities and accomplishments.

2. Problems.

   Recommendations for improvement:


4. Specific suggestions for further development.

Read by: __________________________ Date: ____________

Reviewed by: ______________________ Date: ____________

TO RATER: Initial appoint this space when you have discussed this report with the employee.

---

*Signature of Employee*

*This signature merely verifies that this evaluation has been discussed with the employee, and it does not express approval or disapproval of the above.*
## CLEMENT COMMUNITY HOSPITAL

### EMPLOYEE EVALUATION

<table>
<thead>
<tr>
<th>EMPLOYEE</th>
<th>DATE</th>
<th>JOB TITLE</th>
<th>DEPARTMENT</th>
</tr>
</thead>
</table>

Evaluate the employee on the job now being performed. Circle the number in the left column that nearly expresses your overall judgment on each quality. Also, in the spaces reserved for comments, include the employee's earlier scores since the last appraisal and state whether the individual has gone backwards, remained stationary, or gone ahead in each of the qualities listed. The score and accuracy with which this appraisal is made will determine its value to you, the employee, and to the organization.

### JOB KNOWLEDGE
(Consider knowledge of the job gained through experience, general education, specialized training.)

1. Well informed on all phases of work.
2. Knowledge thorough enough to perform without assistance.
3. A moderate grasp of essentials, some instruction required.
4. Requires considerable assistance.
5. Inadequate knowledge.

Comments:

### QUALITY OF WORK
(Consider neatness, accuracy and dependability of results regardless of volume.)

1. Exceptionally accurate, practically no mistakes.
2. Usually accurate, seldom necessary to check work.
3. Acceptable, usually neat, occasional errors or rejections.
4. Often unacceptable, frequent errors or rejections, need supervision.
5. Unacceptable, too many errors.

Comments:

### QUANTITY OF WORK
(Consider the volume of work produced under normal conditions, disregard errors.)

1. Very good work, turns out pleasant volume.
2. Average volume.
3. Volume below average, often does not complete work.
4. Very slow worker cannot complete desired.

Comments:

### ABILITY TO LEARN
(Consider the speed with which the employee masters new routines and grasp explanations.)

1. Exceptionally fast to learn and adjust to the new conditions, adaptable.
2. Learns rapidly, follows instructions, routine instructions.
3. Average instruction required.
4. Requires extra instructions, necessary to repeat instructions.
5. Very slow to absorb, poor memory, cannot adapt.

Comments:

### INITIATIVE
(Consider the tendency to cooperate, co-operate and carry out new ideas or methods. Also dependability in carrying out routine assignments.)

1. Excellent, initiative resulting in frequent saving in time and money, always reliable, is a leader.
2. Shows initiative occasionally, fairly reliable.
3. Lacking in initiative, not to be told to complete tasks.
4. Needs constant prodding, is unreliable.

Comments:

### COOPERATION AND RELATIONSHIPS
(Consider manner of handling job relationships.)

1. Goes out of way to cooperate with co-workers, supervisors, and subordinates, excellent attitude, likes and gives instructions well.
2. Gets along well with associates.
3. Acceptable, usually gets along well, occasionally complaints.
4. Shows reluctance in cooperate, complaints.
5. Very poor cooperation, does not follow instructions, dislikes fellow employees.

Comments:

282
ATTENDANCE (Consider rate of absenteeism, reasons for absenteeism, tardiness, and promptness in giving notice.)
1. Exceptional, absent only for emergencies: family crises, sick duty, illness: always on time, gives notice when absent.
2. Fairly absent or late, absent with good reason, gives notice.
3. Occasionally absent, less important reasons, gives notice, but not always on time.
4. Other absent, lack of adequate notice.
5. Exceptional absenteeism, does not give notice, reasons are unacceptable, cannot be depended upon.
Comments:

APPEARANCE (Consider neatness and appropriateness of dress.)
1. Exceptionally, always neat and clean.
2. Good, usually neat and clean.
3. Average, some neatness.
4. Poor, often dirty, careless in appearance.
5. Unacceptable, offensive.
Comments:

OVERALL EVALUATION: Superior Good Satisfactory Unsatisfactory

COMMENTS (Consider need for improvement; suitability for job, contributions. BE SPECIFIC)

CERTIFICATION BY RATER:
I HEREBY CERTIFY THAT THIS APPRAISAL CONSTITUTES MY BEST JUDGMENT OF THE SERVICE VALUE OF THIS EMPLOYEE AND IS BASED ON PERSONAL OBSERVATION AND KNOWLEDGE OF THE EMPLOYEE'S WORK.
Signature ___________________________ Date __________

CERTIFICATION BY EMPLOYEE:
I HEREBY CERTIFY THAT I HAVE PERSONALLY REVIEWED THIS REPORT.
Signature ___________________________ Date __________

Approved by: ___________________________ Date __________
1. **What strengths do we find in Burt's approach to appraising and reviewing his employees' performance?**

2. **How can we explain the results Burt had with his first two reviews in the light of his high hopes?**

3. **What objectives did Burt have for each review? What objectives should he have had?**

4. **How can he get better results from the reviews with the rest of his people?**

From: *Management Minded Supervision*, p. 299.
THE CASE OF THE INEPT INTERVIEWS

Burt Hall sat looking at the pile of completed performance-appraisal forms on his desk. In ten minutes Norm Wiley would be in to discuss his performance of the past six months. Wiley had been scheduled first because Burt had wanted to get things off to a good start. After Wiley, the number two person would be Del Burns in the afternoon. That's the way it would go—one in the morning, one in the afternoon until he got through the whole department. By the evening of the first day, with two of his better employees reviewed, Burt felt that he could analyze his results and improve as he went along.

This would be Burt's second round of performance appraisals since becoming supervisor of Assembly Department B. The first time around could hardly count, and Burt was determined that this time he was going to do a better job. His predecessor, Harry Gates, didn't have much patience with the whole idea of performance evaluation and review. He filled out the appraisal forms for Burt as his last official act and

From: Management Minded Supervision, pp. 295-299.
left the review interview for Burt to do. His advice was to just tell each employee what his rating was and give him a chance to object if he wanted to. Harry felt that the quicker you got it over, the quicker you could get back to concentrating on production. He kept the ratings on the high side, he told Burt, because then there wouldn't be any difficulty with the employees and because it made the department look good by comparison with others.

That entire first review had gone without incident. Everyone liked Burt. They felt that the ratings were Harry's, and signed the forms acknowledging the interview without much comment. When he had finished, Burt was relieved. But he was concerned that nothing much seemed to have been accomplished.

Determined this time to show his employees that he knew what he was doing, Burt had spent a considerable amount of time preparing the forms. He worked on them three evenings at home in addition to the time spent in his office. Generally the individual evaluations were quite high, but they were deserved. The production results were right there to back them up, and quality in the department was excellent. Naturally there had been a few problems and problem children over the past six months, but on the whole Burt felt good about the evaluation of his department's performance represented by the completed forms on his desk. Burt regarded this job as a chance to get really close to his employees. That was why he scheduled Norm Wiley and Del Burns first. They were easy to talk to; they were cooperative; but most of all they had won high ratings from Burt, and it would be a pleasure to tell them so individually.

The procedure outlined by the personnel department called for the supervisor to make his evaluation of each employee, bring each employee in to discuss the evaluation, and get the evaluation form signed by the employee to show that the discussion had taken place. The signing of the form did not mean that the employee agreed with the rating but simply that he had been discussed with him or her. The employee had the opportunity to register any disagreement with the evaluation either on the form or by contacting the personnel department. There hadn't been a single such objection on Burt's first round six months ago.

The form was a simple two-page booklet calling for an evaluation of the employee's quantity or volume of work, quality or accuracy, reliability, cooperativeness, versatility, loyalty, strengths, weaknesses, and promotability. Training necessary to make the person a more valuable employee was to be covered in the last section.

Burt hadn't been satisfied with Harry Gates's off-the-cuff rating on all factors the last time—especially on quantity and quality of work. Since production records were available on almost all his employees, Burt pulled out the achievements of each and based his quality and quantity ratings on "the facts," as he called them. His evaluation of reliability was based on tardiness and attendance records even though he felt that a less objective rating was wanted. The rest of the form required him "to play God," as he said. Being human, he was never sure that his ratings were free of his personal bias. Whenever he could, Burt found specific examples to back up his ratings on cooperativeness, versatility, loyalty, strengths, and weaknesses. Many times he wondered, though, how much his choice of examples might be reinforcing his bias. He had done his best, however, and now he was ready to begin. Burt was so anxious to get started on the right foot with Norm that he trembled just a little bit when Norm poked his head in the office door and asked if the time had come.

Shaking hands with Norm at the end of the interview felt awkward to Burt, but it seemed to be the only way to signal the finish. Doggone it, the whole interview was awkward. It hadn't gone at all as he had wanted it to. From the time Norm walked in, he wasn't himself. He seemed to freeze up. His manner was pleasant enough. There was no disagreement with Burt's evaluation. Burt began to feel that they were like a boss with a rookie employee rather than two friends discussing a subject of mutual interest. Burt had wanted informality, but the result was formal and consequently uncomfortable for Burt.

Burt had avoided looking at the evaluations from the last period. He wanted to be certain that he was not influenced by them in any way. He was surprised to find Norm disappointed with the new ratings. It turned out that in most cases they were lower, even though Norm's performance had improved. His quantity of production, which had definitely improved, now had a lower rating. Burt's explanation that nobody rated any higher, and that he was using a new system based on factual information, had a hollow ring. Norm accepted the rating, but Burt had the feeling that he might go to the personnel department to explain that he hadn't really slipped.

For some reason, the whole tenor of the interview was more negative than positive. Burt had intended it to be very positive. He had wanted to tell Norm how pleased he was with his progress, but he wound up several times trying to justify the lower ratings. Burt explained to Norm that his philosophy was to rate a little low to stimulate improvement and that he actually thought more of Norm's work than the evaluation showed. Thinking about that after the interview, Burt felt that it was a stupid thing to say.

Burt rated Norm about midpoint on promotability. The definition...
on the form at that point said, "shows promise; could be promoted."
There were two places above and below to make checks, so that Norm
felt that Burt's rating really said nothing. His disappointment was obvious
when he told Burt that he did hope to get ahead in the company. Burt
wondered, as Norm talked, how many more would feel the same way. He
had been very careful to avoid letting a high rating on promotability trap
him into making a commitment. His thoughts so occupied him that he
wasn't really listening when Norm said something to the effect that
another department might possibly offer him a better chance for
promotion. The affirmative nod of Burt's head brought another disap-
pointed look to Norm's face, and the subject was dropped.

After that there were some offhand remarks from both intended to
terminate the interview, but neither felt that he wanted to accept the
responsibility for bringing it to an official conclusion—perhaps because
no conclusions had been reached. The awkward pauses at last caused
Burt to extend his hand to Norm and thank him for coming in.

A meeting, five phone calls, and a minor breakdown kept Burt
from any mental analysis of the interview until it was time for Del Burns to
arrive for hers. In the back of Bun's mind he knew that he himself had
been responsible for the unsatisfactory interview in the morning. He
knew he had missed an opportunity to motivate Norm and to build his
interest in the job.

The interview with Del was almost a replay of the morning. Sure,
the questions were different; the words were different; it was a different
person across the desk. But the coolness was still there where warmth
had been wanted. Disappointment masked Del's face the same as it had
Norm's. Tension got a firmer grip on Burt's feelings and strained his
reasoning powers even more. The same awkward handshake terminat-
ed the interview and left Burt wondering how he would ever get through
the rest of them.

"Why, oh why," he thought, "didn't I compare these ratings with
those from the last period? Just because I wanted these to be my own, I
risked antagonizing two of my best people."

Del had shown the same disappointment at the lower rating that
Norm had. After getting Burt's explanation of what he was trying to do in-
quantifying the evaluation, Del said, "Sure that's fine, but how do they
know that in Personnel or in Palmer's office or wherever they decide on
our raises? They look at this form and the last one and see my rating
down. What chance have I got to get a raise?"

Burt explained that these evaluations weren't used to determine
raises, but the words were hardly out of his mouth before the realization
hit him that he really didn't know whether they were or not. Del
promptly asked what they were for if not raises, and Burt said he thought
it was to be sure everybody got a chance to find out where they stood.
Again, he wasn't certain that what he was saying was true. Del mumbled
something about not standing very well right now and Burt hastened to
assure her that she was one of the best people in the department.

That last statement caused a wry smile to cross Del's face, and
she said, "Then a couple of others are in for a rude awakening, because
they figure they've been doing a lot better the last few months. They
thought they got better than they deserved last time, so they've been
looking forward to this time and getting what they deserve. Ha!"

Burt wasn't sure that he had said enough or too much, but when
Del was willing to sign the form, it seemed to be a good place to cut it off.
Again there hadn't been any arguments. The real disappointment was
that he hadn't achieved so much of what he had hoped for in these first
two interviews. What had he hoped to accomplish? Well, he really
couldn't put his finger on anything specific. He just wanted the rela-
tionship between him and his employees to be a lot better, and instead
they seemed to be getting more strained.

Why, he wondered, when he was so pleased with his employees' per-
formance, was he creating the impression that he was dissatisfied? Why,
he asked himself, should good positive relationships suddenly
become so strained at appraisal time? How could anything designed to
be helpful and constructive have just the opposite effect? Burt put Del
and Norm's evaluation forms in an envelope along with those of Phil
Knudson and Arnie Ross, whom he was going to talk to tomorrow. He
would study them at home. Somehow he was going to have to find a way
to improve his techniques. As things stood now, he was better off just
going through the motions the way he had done the first time.
Unit: Employee Training, Evaluation and Motivation
Lesson Topic: Employee Evaluation - Analysis of Employee Performance

Objective: The student will be able to identify these specific suggestions one should keep in mind when using records to analyze and supervise the work of employees at different levels.

Introduction:
Once the evaluation system has been worked out does not mean that evaluation is finished when the forms/records are filled out. What forms or procedures do not take into consideration are potential problem areas. First of all, not all raters will agree in the interpretation of excellent, good, average, or poor. Personalities will also come into the evaluation and affect the result. Some supervisors will rate high to make themselves look good. Also, the employee must be evaluated on all levels/areas, not just one or two.

Method:
Lecture, transparencies, handout.

Learning Activities:
The students will acquaint themselves with the potential problem areas in evaluation. These would be:
1. inconsistency with the ratings.
2. opinions/personalities of interviewer/subordinate
3. differences in defining terms
4. not allowing an extra high or low rating in one area to influence the ratings of other areas.

The student will study various methods of preventing potential problems from arising by:
1. Volume of production or sales
2. Quality of production or sales
3. Attendance
4. Safety
5. Cost

To make the interview more meaningful, the interviewer will emphasize:
1. individual strengths rather than weaknesses
2. Think future rather than past.
3. Avoid suggestions on changing traits, but rather suggest more acceptable ways of acting.
4. Concentrate on a few important areas that can be accomplished in a short period of time.

Resources:
Notes - transparencies (Supervision, pp.230-231, fig. 14-4 & 14-5)
Handout - case history in Management Minded Supervision, p. 317 - Edith Shield - don't do questions.
Discuss the three questions on case history. (Management Minded Supervision, p.317-313)

1.
2.
3.

Summary:

Questions and answers.

Page 314, Item 7, A thru H, Management Minded Supervision

The appraisal interview can make or break the entire program. It can rescue a poorly-conceived program or threaten the effectiveness of the most accurate appraisals.

The supervisor should:

1. Prepare for the interview
2. Encourage preparation by employees
3. Arrange for uninterrupted privacy
4. Level with employees
5. Encourage employees to talk
6. Try to set goals
7. Appraise the interview
8. Follow-up
WHAT ARE THE STEPS?

HERE ARE SIX BASIC STEPS IN PERFORMANCE EVALUATION:

6. Take appropriate action.
5. Discuss the evaluation with the employee.
4. Evaluate his performance against the requirements.
3. Observe what he is doing?
2. Discuss the performance requirements with the employee and adjust them as needed.
1. Prepare performance requirements. In other words, determine how well you expect the employee to do his duties.

From: Personnel Management, Figure 10-1, p. 222.
"Let's see here, Wilson. I understand you're having some trouble getting along with everyone."

"Yes, but what have you done lately?"
Edith Shield, supervisor of applications research for the Glo-Brite Wax and Polish Company, hated performance appraisals more than any other part of her job. "You spend a year building good morale and wipe it out with one round of appraisals. How can anything which is supposed to be good for supervisor-employee relationships have such an opposite reaction?" was the question on Edith's mind as she made preparations for next week's round of reviews.

The problems Edith had had in the past she could see happening again, and short of abdicating her responsibility she didn't know how to avoid them. Personnel had always told supervisors not to get into discussions of salary adjustments, that the primary purpose of appraising and reviewing performance was to let employees know where they stand in their bosses' eyes and to show them how they could improve. The appraisal interviews were supposed to open the lines of communication between supervisors and their employees.

Edith knew it didn't work that way for her. Most of her people seemed disappointed in her evaluations of their performance. How, she wondered, can I stimulate improvement unless I keep my ratings conservative—on the low side? If they see high ratings, they'll just feel no improvement is needed. I want to give them something to shoot for. Instead of wanting to talk about improvement, they want to argue about ratings and they want to know how it's going to affect their wages. I get the feeling that they resent me instead of being motivated to want to improve. I can't even get most of them to talk about improvement. My people always have had lots of ideas for new projects and tests, but for about two months after appraisals those ideas seem to dry up.

It would be easy, she thought, to rate everybody real high and make them feel good. But that would be abdication and wouldn't accomplish anything!

From: Management Minded Supervision, p. 137.
1. What's wrong with Edith's thinking about performance appraisals?

2. Why do Edith's employees react to her appraisal reviews the way they do?

3. What should Edith do about the next round of appraisal interviews in her department?
Unit: Employee Training, Evaluation and Motivation
Lesson Topic: Improving Performance by correction
Objective: The student will be able to name a minimum of three guides/steps he would use when correcting an employee.
Method: Lecture/Discussion
Learning Activity: Students will participate in the lecture/discussion and will then complete in class a project using three steps to be taken in making corrections.
Resources: Handout: Three steps to be taken in correcting an employee.
Summary: Exercise
Time: 45 minutes

Lecture/Discussion:
Point 1. Performance Evaluation is the basis for corrective action. As a result it can be taken by those who are in the best position to do something about it, namely the supervisor and the employee. (Pers. Mgt. p. 235-6)
Question: What is the type of evaluation that will most usually be used by a supervisor to detect mistakes?
Suggest: Continuous observation

Point 2. There are three steps that may be taken when trying to induce change in performance.
Step 1 - Determine the facts. Investigate what happened and why. (Supervision p. 279)
Question: What are some possible causes for mistakes?
Suggest: Carelessness, misunderstanding, unqualified.
Question: What are some possible reasons for each cause and remedies?
Suggest: Carelessness - attitude misunderstanding - lack of communication unqualified - lack of training or inability

Step 2. Provide Explanations.
The Supervisor must communicate and explain all of the information which the employee may require in order to correct mistakes (Supervision, p. 259)
Question: How can a supervisor determine when his directions have been understood?
Suggestion: Feedback. This is done by asking questions such as: "What are you going to do?" "How are you going to do it?" "How long will it take?"
Step 3 - Allow participation. Employee resistance is reduced when allowed to suggest means of self-improvement. (Supervision, p. 260)

Question: What questions would you ask an employee in order to involve him in his own corrective procedure?

Suggestions: "What do you think happened to cause the mistake?" "What do you think needs to be done to prevent it from happening again?" "Is there anything that I, the supervisor, need to do to prevent it from happening again?"

Students are asked to complete the exercise.
1. Use a current problem you now have.
2. Use a problem that happened to you.
3. Assume a problem that could occur.
THREE STEPS TO BE TAKEN IN CORRECTING AN EMPLOYEE

1. State the problem. (Investigation and conclusion)

2. Explanation to be given employee:

3. How will employee be asked to participate?
Unit: Employee Training, Evaluation and Motivation
Lesson Topic: Employee Morale and Motivation

Objective: The Student will indicate a knowledge of four ways to maintain a working environment which offers security and freedom from worry for employees.

Introduction: A. Question: What is it that Employees want from their jobs?
Boyd - Chart, page 153

(30 mins.)

B. Question: What is motivation? Definition - Chruden, page 241
Motivation may be defined as the state or condition of being induced to do something.
Needs - something within individuals that prompts them to engage in behavior which is directed toward the attainment of goals.

Incentives - satisfy needs

Tension | Goal Directed Behavior | Incentive | Reduced Tension | Goal Achieved

C. The basic question to be answered in this segment is "How do we maintain a working environment which offers security and freedom from worry for employees?"

Method: Lecture
Discussion
Overlays
and/or Handouts

Learning Activity: Through lectures, example and discussion, the following four concepts will be covered:

(45 mins.)

A. The nature of human needs
1. Frustration occurs when needs are not satisfied. Boyd 150
2. Motivating drive and incentive - behavior. Boyd, page 147
3. Maslow's Heirarchy of Human Needs
   Boyd 147-150, Chruden 243-245
   Overlay #2, Chruden P. 243
4. Types of Incentives to satisfy needs. Chruden, pp. 246-248.
   Boyd 155-158
   A. Money
   B. Security
   C. Affiliation
   D. Esteem
   E. Self actualization
B. Herzberg's Motivation Hygiene Theory
1. Churden, Page 257
   a. What is a hygiene factor?
   b. What is a motivator?
2. Overlay Churden, Page 258

C. Definition of Frustration and Conflict
   Boyd, pp. 150-151
   Churden, 251-254
1. Nature of Frustration
2. Common Reactions to Frustration
   a. Selecting a substitute goal
   b. Moladptive behavior
3. Symptoms of frustration and conflict
   a. Anxiety
   b. Adjustment or defence mechanisms
   c. Withdrawal reactions
   d. Substitute reactions
4. Reduce Frustrations, Churden, pp. 255-256
   a. Manager's job
   b. Minimizing Conflicts
   c. Job satisfaction factors.
   d. Job satisfaction and Employer behavior, Churden, p. 260

D. Supervisor's responsibility towards policies, procedures, objectives, methods.
   Churden, pp. 96-90
   Heiman, pp. 110-114
1. Policies
   a. definition
   b. need
2. Objectives
   a. definition
   b. need
3. Procedures
   a. definition
   b. need
4. Methods
   a. definition
   b. need
5. Management's responsibility to employees in these areas.

Summary:
A. Individuals are motivated by different needs.
B. Unsatisfied needs cause frustration and conflict.
C. Management's job is to be aware individual needs and reduce possible frustration and conflict.
D. Methods used
   1. Thorough explanation
2. Constant observation
3. Open Communication
1

INCENTIVE

TENSION

GOAL DIRECTED BEHAVIOR
NEED

PrO1111

Pornonnel Mcmagement, p. 252.

GOAL ACHIEVED

REDUCED TENSION


### Comparative Ranking of Job Factors

<table>
<thead>
<tr>
<th>Employees' Ranking</th>
<th>Job Factors</th>
<th>Supervisors' Ranking</th>
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<tbody>
<tr>
<td>1.</td>
<td>Full Appreciation of Work Done</td>
<td>2</td>
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<tr>
<td>2.</td>
<td>Feeling of Being in On Things</td>
<td>10</td>
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<tr>
<td>3.</td>
<td>Sympathetic Help on Personal Problems</td>
<td>3</td>
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<tr>
<td>4.</td>
<td>Job Security</td>
<td>9</td>
</tr>
<tr>
<td>5.</td>
<td>Good Wages</td>
<td>2</td>
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<tr>
<td>6.</td>
<td>Interesting Work</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Promotion and Growth in the Company</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>Personal Loyalty to Employees</td>
<td>6</td>
</tr>
<tr>
<td>9.</td>
<td>Good Working Conditions</td>
<td>4</td>
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<tr>
<td>10.</td>
<td>Tactful Disciplining</td>
<td>7</td>
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</tbody>
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Unit: Employee Training, Evaluation and Motivation

Topic: Employee Morale and Motivation

Object: The student will indicate an understanding of the factors/ways of developing employee pride.

Intro: The business that has conscientious, dedicated employees is well on the road to success.

(5 mins.)

To instill a sense of pride to an employee will result in his striving to do his best effort on the job. To accomplish this we need an understanding of what needs the employee brings to his job.

Give Example: Courteous, knowledgable salesperson encourages a purchase. Surly, bored, uninterested employee deters patronage.

Once we have recognized these needs, we can motivate and develop his pride, interest, and enthusiasm in his work.

Method: Lecture and discussion

Learning Activity:
1. Present list of factors of employee pride.
2. Present list of ways of developing employee pride.

Flow chart:
Need \(\rightarrow\) Goal directed behavior \(\rightarrow\) Incentive \(\rightarrow\) Reduced tension

1. Economic security savings investment
2. Achievement position - higher in organization

(20 mins.) Adapt case study: Management-minded supervision; Boyd, page 163.

Add question 4 for discussion:

4) Would you insert an older salesperson to staff?
Resources

1. Boyd: Pages 147-149
2. Boyd: Pages 156-159
3. Personnel Management: Pages 240-262

Summary:

Question and Answer

Point #1: What types of incentives would you offer to instill pride?
Point #2: What factors lead to employee frustration?
Point #3: What are the reactions to frustration?
Point #4: What are the motivators that lead to job satisfaction and pride?

Answer: Achievement
Recognition
The work itself
Responsibility
Advancement

Resources

1. List of factors of employee pride
2. List of ways of developing employee pride.

Summary:

Point #1: What types of incentives would you offer to instill pride?
Point #2: What factors lead to employee frustration?
Point #3: What are the reactions to frustration?
Point #4: What are the motivators that lead to job satisfaction and pride?

Answer: Achievement
Recognition
The work itself
Responsibility
Advancement
Frustration

Need (tension)  Goal directed behavior  Intensive (goal)  Tension persists

Barriers

External
- Discriminatory practices
- Monotonous jobs
- Unpleasant working conditions
- Economic insecurity

Internal
- Poor habits
- Inadequate personality
- Aptitude for job

Reactions to frustration

Select substitute goal
- Engage in maladaptive behavior
  - Aggression
  - Over-eating

Symptoms of frustration and conflict
- Anxiety - resistance to change

"Motivators"

Achievement
Recognition
The work itself
Responsibility
Advancement

Job Satisfaction - PRIDE

Job satisfaction and employee behavior improvements in:

Turnover
Absenteeism
Job performance
FACTORS OF EMPLOYEE PRIDE

A. NEED TO KNOW THE WANTS OF EMPLOYEES IN THE WORK SITUATION.
B. SKILL OF COMMUNICATING THE OBJECTIVES OR GOALS OF THE ORGANIZATION TO THEM.
C. ABILITY TO MAKE THEM ACCEPT THOSE GOALS AS THEIR OWN.

1. NEED TO KNOW WHAT WILL MAKE THEM WANT TO DO THEIR BEST WORK; KNOW WHAT EMPLOYEES WANT FROM THEIR JOB.
2. PEOPLE WANT TO WORK; WORKING GIVES MEANING, SATISFIES THEIR NEED TO ACCOMPLISH.
3. WANT TO BE RESPECTED FOR WHAT THEY KNOW, WHAT THEY FEEL.
4. PHYSIOLOGICAL DRIVES
   BASIC NEEDS - MONEY, FOOD, WARMTH, CLOTHES.
5. SECURITY DRIVES
   JOB SECURITY, HOSPITALIZATION
6. SOCIAL DRIVES
   BELONG TO THE GROUP.
7. PSYCHOLOGICAL DRIVES
   FEEL IMPORTANT
   PRAISE FOR JOB WELL DONE
   ADDITIONAL RESPONSIBILITY, PROMOTION
   PAY INCREASES
   LISTENING TO IDEAS
   CHALLENGING ASSIGNMENTS
   PARTICIPATE IN DECISIONS
8. SELF-ESTEEM, DRIVE - SELF RESPECT
   REACH FOR FULL POTENTIAL
   MATCH SKILLS AND ABILITIES TO JOB
   FAILURE TO LISTEN TO IMPROVEMENT IDEAS.
WAYS OF DEVELOPING EMPLOYEE PRIDE

1. **Recognition for good work.**
2. **Treat employees as individuals.**
   - Show a personal interest in them.
   - Give employee the opportunity for expression.
   - Talk with them. Listen to them.
   - Show the importance of their job to the overall operation.
3. **Offer sincere praise and recognition.**
   - Specific - outstanding work
   - Completing ahead of deadline
4. **Provide growth opportunities through delegation.**
   - Chance to show what they can do.
   - Opportunity to make greater contribution.
   - Increases feeling of personal worth.
   - Strengthens departments.
   - Can save time - frees for other tasks.
5. **Review their performance.**
   - Evaluation.
6. **Provide for participation.**
   - Set goals and standards
7. **Plan the orientation of new employees.**
   - Tend to feel insecure.
   - Their work is important.
   - Belongs to work group.
8. **Train them well.**
   - Confidence and ability.
9. **Communicate with them.**
   - Praise and credit.
   - Employee wants to know what's going on.
Supervising salespeople who can earn practically as much as they want ought to be duck soup. Everything they need to motivate them is right there in our commission setup. At least that’s what Joe Snyder, supervisor of sales in the Swim-Time Pools Company, thought when he took over the North Division office. They work, they earn! Goof off and you don’t eat. It’s as simple as that.

Problem was that sales were dropping off while their competitors’ sales were increasing. Joe knew it wasn’t price or quality because they were as good as or better than their competition. Swim-Time was still number one but losing ground.

Joe’s sales force was made up mostly of young men and women who were enthusiastic about swimming. Their spending time socializing in the store instead of prospecting and following leads iritated Joe. He had seen too many sales lost by salespeople accepting easy-to-overcome objections. He suspected that time away from the store wasn’t always spent tending to business. When people don’t punch a clock and when they manage their own time, a supervisor has to depend on commissions to motivate them, is the way Joe had it figured. Somehow it wasn’t working for him.

From: Management Minded Supervision, p. 163.
Unit: Employee Training
Lesson Topic: Employee Moral and Motivation
Objective: The student will demonstrate a knowledge of how to communicate with others in order to make them work willingly.

Method: Discussion/lecture with transparencies and handout case studies.

Resource: Personnel Management, pp. 286-303
(There are also chapters in Management-Minded (Chapter 2 and Supervision which deal with these [Chapter 6])

Learning Activities: Lecture/Discussion (Transparency, Fig. 13-1, p.288 Communication Process)

I. The Communication Process
   A. Steps in the communication process
      1. ideation by the sender intended content of the message
      2. encoding - ideas are organized into a series of symbols
         (5 mins.)
      3. words or phrases wanted to use and also appropriate media
      4. receiver tunes in to receive the message (failure to listen - message lost)
      5. decoding - turning the words into ideas (can be perceived differently)
      6. receiver acts or responds - asking more information or taking action.
      7. Feedback - acknowledgment that the message was received.

II. In What ways does an employee and supervisor communicate to each other?
   A. Formal Communication
      Takes place through established lines of authority.
      (10 mins.)
      1. Downward - from higher management to subordinate performance. Ex: job instructions, procedures and practices.
      2. Upward - subordinates express their ideas, attitudes and feelings about jobs to management.
      3. Lateral - communication among personnel at approximately the same level helps coordinate activities and performance of job responsibilities.
B. Written Communication from Management
   1. Job descriptions and procedural manuals - details of duties the employee is expected to perform for purposes of uniformity, efficiency and safety.
   2. Handbooks - information of immediate concern: such as sick leave, insurance coverage, other benefits, etc.

C. Newspapers and Magazines (house organ)
   1. News about employees and families (internal social environment)
   2. Reports on internal technological information.
   3. Reports on external environment (taxation, productivity, inflation, etc.)
   4. Social responsibilities.

D. Written communication from Employees
   1. Question box - provides employees with a system for obtaining answers to questions from management.
   2. Suggestion program - upward communication that is widely used to stimulate participation of employees in important aspects of organizational operation.

E. Superior - Subordinate Communication
   1. Advise subordinate what is to be done
   2. Increase goal aspirations and motivation
   3. Communicate the consequences of performance to employees
   4. Provide for employee feedback to management.
   5. By being a good listener and encouraging subordinates to communicate fully - will know what type of information is wanted/needed.

F. Informal Communication
   1. Takes place between persons in an organization whose relationship to one another may be independent of their authority and job function.
   2. Grapevine - important channel of communication fanned out through the organization without regard to formal structures or channels of communication.
   3. Charting informal communication.
      1. Through an awareness of who talks to who during free times. Supervisors may develop an understanding of the nature of the communication that flows among individual and it's effect on their attitudes and job performance.
III. Case studies (Jones and Wells)

(5 mins.) Pass out study and explain procedures. Students should work in groups of two's with one being Jones and one being Wells.

(15 mins.) Discussion and solution in Small Groups.

(20 mins.) Discussion in the large group.

1. What solution did they come up with to the problem?

2. What barriers to communication did they experience?

A. Differences between individuals
   No two people are alike

B. Differences in perception
   People have different experiences, or ways of looking at things (frames of references)

C. Differences in age - "generation gap"

D. Differences in emotional states
   Improve communications is to reduce defensive behavior.

E. Differences in listening ability.
   Supervisors should listen non-evaluatively (understand the person's frame of reference or point of view - often learn more about how things look to others by listening)

F. Differences in interpretation (semantics)
   1. Different words have different meanings to different people.
   2. To be more effective communication should be precise.

G. Differences in status
   1. The position of the individual in the organized structure will influence the quality of communication that takes place.

H. Dilution of information
   Child's game - "telephone"

I. Filtration of information
   Giving only partial information on color events

J. Personalities of managers
   How managers perceive themselves, jobs and subordinates

K. Effect of special groups upon climate
   Different backgrounds - different values.

L. Lack of definite plans
   Who will communicate and when?

M. Lack of clarity
   Material presented is unclear, words of many syllables, complex sentences, and in unexplained technical terms.

N. Lack of reading skills

O. Other barriers:
   1. Choice of media
   2. Misuse of a certain type of media
3. What do they feel are some fundamentals for good communication?

A. Feedback and listening
   1. Manager/Supervisor must be able to listen.
   2. Sometimes recipients are embarrassed by not understanding what was said and nod their head - supervisors must encourage clarification of instructions if needed.

B. Sincerity
   1. Verbal and non-verbal included
   2. Best to be fair and honest in dealings with employees.

C. Understanding Human Needs
   1. Pay attention to employees' needs, interests and needs.
   2. It's human nature to pay attention to someone who has something to say about something we're interested in.

D. Proper Timing

E. Appropriate Channels and Media

4. Pass out handout which describes various barriers to communication and fundamentals for good communication.
BARRIERS TO COMMUNICATION

Differences between individuals
Differences in perception
Differences in age
Differences in listening ability
Differences in semantic interpretation
Differences in Status
Dilution of information
Filteration of Information
Personality of Manager
Special Group Values
Lack of Definite Plans
Lack of Clarity
Lack of Reading Skills
Choice of Media

FUNDAMENTALS OF GOOD COMMUNICATION

Feedback
Listening
Sincerity
Understanding Human Needs
Proper Timing
Appropriate Channels and Media
IDEATION — ENCODING — TRANSMISSION — RECEIVING — DECODING — ACTION

Possible Barriers

FEEDBACK
WHAT DO YOUR EMPLOYEES WANT MOST FROM THEIR JOB?

Below is a list of ten morale building factors, things that the typical employee wants from his job. Please rate these factors in order of their importance using the numbers 1 thru 10. The morale building factor you rate as being most important to an employee should be rated number 1, the second most important morale building factor should be rated number 2, and so on.

___ GOOD WORKING CONDITIONS
___ PROMOTION AND GROWTH IN COMPANY
___ PERSONAL LOYALTY TO WORKERS
___ WORK THAT KEEPS YOU INTERESTED
___ FEELING "IN" ON THINGS
___ TACTFUL DISCIPLINING
___ MONEY
___ SYMPATHETIC HELP WITH PERSONAL PROBLEMS
___ JOB SECURITY
___ FULL APPRECIATION OF WORK DONE
Motivation is "... behavior that is instigated by needs within the individual and is directed toward goals that can satisfy these needs." This definition establishes the broad framework for the seven major dimensions of motivation.

1. **Need**: A lack of something, a deficit condition, a disequilibrium. (In general, the terms needs, wants, desires, and motives may be used interchangeably.)

2. **Unconscious tension buildup**: An unconscious or conscious physical tension buildup as the result of a need.

3. **Force**: The drive or impetus provided by a felt need or motive.

4. **Behavior activities**: The actions, both mental and physical, that are brought into play in the process of satisfying a need or motive.

5. **Goal**: The object or incentive at which behavior activities are directed.

6. **Satisfaction**: The attainment of a goal.

7. **Tension reduction**: The equilibrium attained when a need or motive is satisfied.
The Hierarchy of Human Needs

A satisfied need is no longer a motivator of behavior.

Physiological Needs
- Ex.: Food, Shelter

Safety Needs
- Ex.: Protection against danger, threat, deprivation

Social Needs
- Ex.: Belonging, association, acceptance by social groups

Ego Needs
- Ex.: Self-esteem, recognition, status

Self-Fulfillment Needs
- Ex.: Creativity, self-realization
A comparison of Maslow's need-priority model with Herzberg's motivation-maintenance model.
FORMAT FOR HANDLING ROLE PLAYING

"The Frustrated Supervisor"

1. Opportunity to be real live actors. A role that they will have as department heads. Called "Learning by Role Playing."

2. Make up the two-man teams by lot.

3. Have the Wellses go to one room and the Jacksons to another. Give brief instructions to each group separately.

4. Five minutes to read instructions.

5. Have two-man teams pair off and spend 10 to 20 minutes discussing the matter.

6. The Wellses return to their original room for reports, and the Jacksons to theirs.

7. When reports have been prepared, bring the entire group together to discuss the reports.

8. Two-man teams meet to discuss:
   a. What Jackson liked best about the way Wells handled him.
   b. What he liked least.
   c. What factors made for possible misunderstandings between the two.

   a. Is Jackson ready to deal with Blake? Should Wells have covered this problem in the interview?
   b. How does Jackson feel about his neighbor? Is this important?
   c. How should supervisors deal with employees who bypass their immediate supervisors?
   d. Should all three persons involved have been brought together rather than the boss (Wells) talking to them separately? Would this be undercutting Jackson?
      ---Should the three ever be brought together?
   e. Who should be able to dismiss an employee in a case like this?
   f. Should every manager and supervisor have an open-door policy?
1. We all have frustrations, on and off the job. Sometimes we bring our frustrations to the job and let them affect our work. This happens to our boss and the people who work for us, not just to us. One way to get over frustration is to talk it out with someone.

2. Chain of command.

3. Open-door policy for managers and supervisors. Does the immediate supervisor and his boss have an understanding about an employee taking his problems to the top boss? Does the employee know where he stands?

4. We hardly ever know all the facts. We must do everything we can to bring out the facts.

5. We can misinterpret the man above us, as well as those under us. (In this case, Jackson (the supervisor) was mad at this boss (Wells) because he assumed that Wells would side with the employee.)

6. The same situation can be interpreted quite differently by different persons, even by persons who have the same kinds of jobs. This is because our backgrounds and attitudes are different.

7. A problem situation such as portrayed in this role playing case is difficult at the time, but it can be taken advantage of by making it a learning situation, for ourselves and for others involved.

8. Some good and bad supervisory actions involved:
   a. Not controlling temper
   b. Bawling out an employee in front of the work group. (The art of criticizing)
   c. Being a good listener
   d. Being firm, being fair
   e. Employees need guidance, but so do supervisors
   f. Being able to admit a mistake
COMMENTS ON "THE FRUSTRATED SUPERVISOR"

A good method of relieving the frustrations of others is to be a good listener. By listening, you help the other person to rid himself of his frustration tensions and at the same time you keep yourself from becoming involved. A good listener can avoid setting up defensive reactions, hostile behaviors, and arguments, which only lead to face saving and further frustration.

However, listening is not easily done. Another person often expects you to express your opinions and you must be able to avoid this situation and get the person to talk about his own feelings. In responding to feelings by nodding, asking the other to tell you more, and showing that you understand, you create a permissive relationship which is essential for dealing with feelings.

Too often people are made to feel that they must justify their conduct and as a result they hide their true feelings and talk about the situation by greatly exaggerating the problem. Respecting feelings makes exaggeration unnecessary.

It is through the expression of true feelings that frustration tensions are released. Once these interfering emotions are reduced through expression, the original problem can be faced in a problem-solving state of mind.
ROLE FOR BILL JACKSON, FIRST-LINE SUPERVISOR

You have just come to work after a series of the most humiliating and irritating experiences you have ever had. Last night your next-door neighbor, Sam Jones, had a wild, drunken party at his house that kept you awake most of the night. Jones is a blustering, disagreeable man who has no consideration whatever for others, so when you called him at about 3:00 a.m. and told him to be less noisy, he was abusive and insulting. Things quieted down later on, but when you finally got some rest you overslept.

Since you were in the midst of a rush job at the company, you skipped breakfast to hurry to work and, as you were leaving the house, you noticed that someone had driven a car across one corner of your lawn and had torn out several feet of your new hedge. You were certain that Jones or one of the drunks at his party had done it so you ran right over to Jones's house, determined to have it out with him. He not only denied everything, but practically threw you out and threatened to knock your teeth out if you didn't shut up and behave yourself and you know that he is big enough to do it.

When you came to work, more than an hour late, your nerves were so ragged that you were actually shaking. Everything conceivable had gone wrong, and then the last straw was when you discovered that Joe Blake, a young high school recruit, had made a mistake that delayed you several hours on your rush job, or at least it would have it you hadn't caught him in time. Naturally, you gave him a good going over for his carelessness. Blake said he wouldn't take that kind of abuse from anyone and walked out on you. You noticed that he went in to see your supervisor, Jim Wells. Obviously he is in there accusing you of being rough on him. Well, you don't like that kind of an attitude in a young squirt either, and if he has gone in there squawking you'll make him wish he'd never been born. You have had all you can stand and the big boss had better not get tough with you because he'll have one hell of a time getting the job done without you. Jim had that snivelling brat in there and talked to him for quite a while before he phoned you to come in. Gabbing when there's work to be done—that's certainly a hell of a way to run things. You are on your way to Jim's office now and have no intention of wasting time on words.

(Try to get into the spirit of this case and feel some of the emotions that would ordinarily be present.)
ROLE FOR JIM WELLS, DIVISION SUPERVISOR

You are the supervisor of a division employing about 75 men and women and 6 first-line supervisors. You like your job, and the supervisors and employees who work for you, and you feel that they cooperate with you in every way.

This morning you noticed that one of your first-line supervisors, Bill Jackson, was rather late in getting to work. Since Bill is very conscientious and was working on a rush job you wondered what had happened. Bill is thoroughly dependable and, when something delays him, he always tries to phone you. For this reason you were somewhat concerned and were about to call his home when one of Bill's men, a young fellow named Joe Blake, came in. Joe is a good-natured kid, just out of high school, but this time he was obviously angry, and said that he was not going to work for Bill another minute and was going to quit unless you got him another job. Evidently Bill had come in, started to work, and then lost his temper completely when young Joe didn't do something quite right.

Although Bill occasionally has his bad moods, it is unlike him to lose his temper this way. This latest rush job may have put him under too much pressure but even so, his outburst this morning seems difficult to explain on any reasonable grounds. You feel, therefore, that something must be seriously wrong and if you can get Bill to talk about whatever it is that is bothering him you may get the situation straightened out. In any case you are determined not to get into an argument with Bill or criticize him in any way. Instead you are going to try to get him to talk about his troubles, listen to what he has to say, and indicate that you understand how he feels about things. If Bill seems more angry than Joe's mistake would reasonably justify, you might suppose that there is something more behind all this and Bill would probably feel a lot better if he got it off his chest. If Bill is thoroughly angry with Joe, you may suggest that Joe be fired in order to demonstrate that you have not taken Joe's side in the matter.

You talked with Joe for several minutes and, after he had told his side of the story, he felt better and was ready to go back on the job. You just phoned Bill and asked him to drop around when he had a chance. Bill said he'd come right over and is walking toward your office now.
REPORTS FOR JACKSON:

1. Did you tell Wells what happened before you came to work?
   Yes ______ No ______
   If yes, what was his reaction?
   __________________________________________________________
   __________________________________________________________

2. Whose fault was this? Why?
   Alake ______ Jackson ______ Wells ______
   _________________________________________________________
   _________________________________________________________

3. Was the matter settled to your satisfaction? Yes ______ No ______
   Why?
   _________________________________________________________
   _________________________________________________________
REPORTS FOR WELLSES

1. Did you get to the root of the problem of what was bothering Jackson?
   Yes  ____  No  ____  Why?

2. Whose fault was this? Why?
   Blake  ____  Jackson  ____  Wells  ____

3. Was the matter settled to your satisfaction? Yes  ____  No  ____
   How?  ____________________________________________
Unit: Employee Training, Evaluation and Motivation

Lesson Topic: Employee Training

Objective: The student will indicate a knowledge and understanding of ten training methods.

Introduction: Ask question - what types of training programs/methods you use. What results, if any?

(30 mins.) Refer to "Plan the Orientation of New Employees" and "Train Them Well", pages 158-159 - Management Minded Supervision for Introduction on Importance of Training.

Method: Lecture, Discussion

Learning Activities: Discuss, lecture on methods of Training, using Transparency of Table 8-2. Do not discuss extent of learning.

Resources: Table 8-2, p. 188, Personnel Management

Summary: Review Methods
## JOB TRAINING PLAN

<table>
<thead>
<tr>
<th>Job</th>
<th>Estimate of time required</th>
<th>Date and time of training</th>
<th>Location of training</th>
<th>Supplies needed</th>
<th>Tools or equipment</th>
</tr>
</thead>
</table>

### Job Sequence (What) | Points To Stress (How)
---|---
1. | 1. |
2. | 2. |
3. | 3. |
4. | 4. |
5. | 5. |
6. | 6. |
7. | 7. |
8. | 8. |
APPENDIX U

GUIDES FOR CONDUCTING THE EXPERIMENT
ADULT

Steps in Experimental Study - IDECC

1. Orient Students

2. Have Students Sign Consent Form

3. Assign Student Numbers

4. Administer Student Questionnaire

5. Administer Ability Test

6. Administer Unit Pre-Test

7. Mail Student Consent Forms, Student Questionnaires, Ability Test and Pre-Test with Answer Sheets (Registered Mail)

8. Teach Unit of Instruction from Lesson Plans

9. Administer Post Test

10. Mail Post Tests and Answer Sheets (Registered Mail)
ADULT

Steps in Experimental Study - Traditional

1. Orient Students
2. Have Students Sign Consent Form
3. Assign Student Numbers
4. Administer Student Questionnaire
5. Administer Ability Test
6. Administer Unit Pre-Test
7. Mail Student Consent Forms, Student Questionnaires, Ability Test and Pre-Test with Answer Sheets (Registered Mail)
8. Teach Unit of Instruction from Lesson Plans
9. Administer Post Test
10. Mail Post Tests and Answer Sheets (Registered Mail)