# DEVELOPMENT AND ANALYSIS OF A LEARNING PACKAGE, SALES PRODUCTIVITY, FOR USE IN THE 

FASHION WORK EXPERIENCE COURSES

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#### Abstract

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## CHAPTER I

## INTRODUCTION

Many changes have occurred in education during the past century. One area in which much change has occurred is in curriculum development. In the past two decades, one innovative medium used in curriculum development has been the learning package.

The learning package consists of a highly structured set of materials designed to be self-instructional and to allow students to progress at their own rate. This self-instructional, self-paced concept lends itself to leading students from theoretical principles to applications in work situations.

One concept for the development of learning packages is the establishment of competency-based objectives. In the past two decades the ability to move from theory to practice has been considered in terms of student competencies. Dressel (1968) defined competencies as "the end results to be acquired by students" (p. 209).

One example of a situation in which competency-based instruction can be used effectively is the work experience program. Work experience programs are designed to prepare students to enter their chosen field of work. An example is the work experience program at Antioch College in Yellow Springs, Ohio. Independent study is used with the work experience program at Antioch. In a report on the program, Baskin (1962) stressed the fact that Antioch does not seek to solve
the problem of providing high quality education for large numbers of students by "turning students loose on their own" (p. 183). Rather, student learning activities must be selected and structured with care by the instructor.

For more than 20 years at Oklahoma State University, a work experience program has been part of the curriculum requirements for students preparing to enter careers in the field of fashion merchandising. Presently, students enroll in one work experience class which is prerequisite or concurrent to enrollment in the work experience laboratory. During the work experience class students receive instructional materials and guidelines necessary to complete the actual work experience. During the actual work experience, the students apply the theories learned in the work experience class. During the semester following the work experience period, the students attend a six-week seminar as part of the work experience laboratory. These two courses are designed to provide opportunities for students to develop job competencies related to certain retail functions.

Through participation in a graduate research project, the researcher became aware of several factors related to the work experience program. Some of these factors involve the actual work experience period. During the work experience period students are required to accomplish certain objectives. Each work situation is unique and the particular objectives which can be achieved by the students vary with the individual work situations. The length of time students work is another factor which affects student achievement of the objectives. The length of time students work varies from the one month minimum requirement to several months.

One factor in particular led to the development of this study. This factor involves the design of the two work experience courses. The actual work experience may not occur immediately following the completion of the work experience class. The students might work several semesters after the completion of the class.

All of these factors revealed a need for curriculum materials which could provide continuity and uniformity between the work experience class and the actual work experience period. There appeared to be a need for learning materials which could help students achieve objectives in individual work situations. Because of the in-class and on-the-job structure of the two courses, a competency-based learning package, with self-instructional, self-evaluative learning materials was identified as appropriate for concentrated and extensive study.

Statement of Purposes

The major purposes of the study were to develop a competency-based learning package and to analyze the use of these materials by students in the two fashion work experience courses. The four objectives for the study were:

1. To develop one part of the learning package to be used by students during the fashion work experience class and one part to be used by students during the actual work experience period.
2. To evaluate the effectiveness of Part I and Part II of the learning package.
3. To revise Part I of the learning package, and to make recommendations for the revision of Part II.
4. To make recommendations for the use of the learning package in the required fashion work experience courses.

Hypotheses

In order to determine the effectiveness of Part I of the learning package for use in the fashion work experience courses, the following null hypotheses were made:

1. There will be no significant improvement between student scores on pretest and posttest for Part I of the learning package.
2. There will be no significant correlation between percent of gain as indicated by pretest and posttest scores for Part I of the learning package and the aptitude of students as measured by the General Clerical Test.

## Limitations

1. Materials in the learning package were limited to two concepts:
a. Computations of sales productivity records, including salary, average sale, selling cost, and sales quota by day, and/or week, and month.
b. Comparison of sales productivity records including comparison of projected goals for average sale, selling cost, and sales quota goals, with actual achievements of students during the work experience period.
2. The student work experience was limited to the first four weeks that each student was on-the-job during the six-week period following the end of the spring semester.
3. During the work experience period, contact with students was limited to two telephone interviews with students in the Oklahoma area; one after completion of the first two weeks of work, and one after completion of the second two weeks.
4. During the work experience period, contact with the merchant or person supervising each student was limited to one telephone interview with those in the Oklahoma area at the end of the four-week period.

## Definition of Terms

1. Competency-based instruction - an individual's ability to use the processes of inquiry, skills, and competence in demonstrating a functional awareness of the conceptual structure of knowledge, attitudes, and behavior patterns as she/he deals with the scientific, social, and humanitarian aspects of life and society (Wright, 1974, p. 46).
2. Individualized instruction - a highly flexible system of multiple materials and procedures in which the student is given substantial responsibility for planning and carrying out his own organized program of studies, with the assistance of his teachers, and in which his progress is determined solely in terms of those plans (Baker, 1970, p. 775).
3. Performance objective - a written statement containing verbal, physical, and attitudinal behavior to be achieved by the student (Harmon, 1968, p. 5).
4. Learning package - a self-instructional unit developed for learning one basic concept or idea in which the idea to be learned is broken into its several components (Shear and Ray, 1969, p. 768).
5. Learning activities - a variety of activities from which the student may learn the content, skills, or material involved (Jones, 1968, p. 180).
6. Fashion work experience class - a course including marketing structures at the retail level; job descriptions and responsibilities at management level; work procedures and job performance evaluation; job applications and resumes (Oklahoma State University Course Catalog).
7. Fashion work experience laboratory - a supervised work experience in an approved store or in a work situation related to the fashion industry. Students work a minimum of one month or equivalent. A six-week seminar is held in conjunction with this course (Oklahoma State University Course Catalog).
8. Actual work experience period - a minimum four weeks on-the-job required for all students will be used for the purposes of this study.

## CHAPTER II

## REVIEW OF LITERATURE

This developmental study is based on certain approaches to curriculum development chosen from the literature. The two approaches which formed the basis of the research were competency-based instruction and the learning package. Both of these approaches were utilized in preparing a competency-based learning package which could be used as one part of a sequency of units designed to prepare students for entry level positions as assistant buyers.
The first section of this chapter contains selected literature on competency-based instruction. This section will include discussion of concepts related to competency-based instruction, objectives as related to competency-based instruction, and applications of competencybased instruction. Individualized instruction is discussed in the second section of this chapter. This section will include discussion of concepts related to individualized instruction, content of learning packages, and use of learning packages at Oklahoma State University. The last section includes other research related to the study. Competency-Based Instruction
One new approach to curriculum development is competency-based instruction. Competency-based instruction is based on the identification of a desired competency or an explicit statement of what a
student would be able to do upon completion of a course. This competency is communicated through specific objectives for which criteria of performance have been established. These behavioral or performance objectives become the basis for the series of learning activities which help the learner achieve the desired behavior. Some type of evaluation is included to determine whether the required level of competency has been achieved.

## Competency-Based Instruction Concepts

Dressel's writings described competencies as the "end results" of education. He implied that using a precise statement of what the student should be able to do makes it possible to state specifically the learning activities needed to provide practice. Dressel defined competencies in a broad sense by proposing his seven competencies of the undergraduate curriculum in higher education. One of the seven competencies identified by Dressel (1968) is career oriented:

The recipient of the baccalaureate degree should be qualified for some type of work. He should be aware of what it is and he should have confidence in his ability to perform adequately (p. 210).

Popham and Baker (1970) stated that the reason for studying the nature of society is to be able to determine more accurately the kinds of competencies needed by today's students. They contended that with this knowledge, educational objectives can be established which are designed to produce these competencies.

According to several experts in the field of curriculum development, competency-based instruction rejects many of the time honored approaches to education. Glick, Henning, and Johnson (1975) summarize these traditional approaches as follows:

1. The content of the curriculum is selected by the teacher and presented to the students.
2. All students are expected to learn the key concepts and facts presented within the same time frame and using the same basic materials.
3. Objectives are general in nature and meant to guide the teacher.
4. Evaluation is norm-referenced. Individual student performance is measured against the group.
5. Teaching is applied in a uniform manner to all students ( p . 18 ).

A competency-based instruction model developed by Glick et al.
(1975) included the following premises:

1. The content to be learned is developed and sequenced by the teacher in terms of 'competencies' to be mastered by the student. The individual student may, however, be assigned certain competencies to develop or he may select competencies of personal interest.
2. The student learns at his own rate and moves on to new material only when he has mastered the competencies in the unit preceding.
3. Based upon individual learning style, the student is assigned, or self-selects materials and instructional settings to develop each competency.
4. Objectives are stated in performance terms, written in language that the student can understand, and shared with the student.
5. Evaluation is criterion-referenced. Individual student performance is measured against the criteria stated in the objectives (p. 18).

Competency-based instruction alters the role of both the teacher and student. The teacher becomes more of a counselor or guide and the student accepts more responsibility for his or her education.

## Objectives in Competency-Based Instruction

Objectives are an integral part of competency-based instruction. The terms instructional, behavioral, and performance are commonly used in describing objectives. Mager (1975) referred to instructional objectives and spoke of an objective as ". . . performance you want learners to be able to exhibit before you consider them competent" (p. 5). Huffman (1973) used the terms behavioral and performance interchangeably and defined performance objective as:

An educational objective that clearly states observable and measureable performance and that identifies for the student and the teacher the conditions under which the events or steps in the learning will take place (p. 26).

Throughout the literature reviewed there are two commonly accepted elements of objectives: 1) stating the goal of the objective specifically and precisely and 2) describing the evaluation activities which provide evidence that the learner has or has not achieved that specifically stated goal.

Applications of Competency-Based
Instruction

The competency-based instruction approach is being applied successfully on the university level. One example of this success is found at Governors State University in Illinois. According to Wright (1974) Governors State is applying the theory of competency-based instruction on a university-wide basis. Competency-based instruction is particularly suited to Governors State's non-traditional population. Most of the students have already completed two years of higher education. Many are employed and cannot meet scheduled lectures or
seminars. Competency-based instruction meets these special needs through more flexible scheduling and no definite time limits for completion of a course. "Competency-based instruction allows students to enter a course and complete it when competency is achieved" (Wright, 1974, p. 48).

The career-education implications of competency-based instruction are demonstrated at Oklahoma State University in the Clothing, Textiles, and Merchandising Department where competency-based instruction is used in a work experience program. The fashion work experience courses at Oklahoma State are designed for students to develop competencies related to certain retail buying functions. It is believed that through learning experiences on-the-job, the students can acquire knowledge and skills requisite to the performance of responsibilities and duties associated with positions of assistant buyer.

Greenwood (1972) has identified 10 career oriented performance goals which retailers and students who have completed the work experience program indicate can be achieved during the one month (160 hours full-time) minimum requirement for fashion work experience credit. The selection process in Greenwood's research involved reactions from two groups: 1) a jury of 15 merchants representing stores where fashion merchandising majors had been employed for work experience; and 2) a group of 25 students who had completed the work experience required in the fashion merchandising curriculum (p. 141). Greenwood (1972) listed these 10 performance goals as follows:

```
1. Maintain effective presentation of merchandise.
2. Recommend actions to insure maximum sales.
3. Transmit merchandise information to others.
4. Maintain proper systems and procedures.
5. Initiate price changes and merchandise counts.
6. Communicate and cooperate with management.
7. Assist salespersons on merchandise problems.
8. Perform maintenance of records duty.
9. Perform maintenance of stock duty.
10. Perform miscellaneous activities (p. 141).
```

Each student selects those performance goals which can be achieved in his or her individual work situation. General guidelines with suggested learning activities designed to achieve each of these performance goals are provided. Each student is evaluated on the basis of the method of achieving the selected performance goals.

## Work Experience at Kansas State University

Fashion Store Service Laboratory is the title of the "work experience" type course at Kansas State University. According to Gould (1966) "This course was initiated to provide training and experience in a retail establishment for students majoring in clothing retailing" (p. 42). The program is somewhat similar to the one at Oklahoma State University in that the students attend class, work in a retail store, and attend a discussion type evaluation of their experiences. Evaluation is based on a notebook compiled by the students which contains information concerning the store, and by an evaluation sheet completed by the retail supervisor of each student.

## Individualized Instruction

A second approach to curriculum development is individualized instruction. Individualized instruction refers to the development of
curriculum materials which are individual rather than group oriented. Students enter the classroom with a wide variety of skills, abilities, and knowledge. All of these factors create needs which differ with each student. These needs require different methods of learning to achieve the maximum potential of each student. As explained by

Wolfson (1966) "Essentially, individualizing instruction requires the teacher to encourage interest and allow for individual styles and
respond to individual needs" (p. 31).
Jones (1968) commented on the uniqueness of the individual:
Research in the behavioral sciences is re-emphasizing the uniqueness of the person and the general lack of our present instruments in education to define even a majority of these unique characteristics of people (p. 178).

He gave the basic philosophy of a continuous progress program which
is based on four assumptions:

1. Schools as organizations in society are held responsible for the maximum development of each individual.
2. Each individual learns at a rate and in a manner that is characteristic of that individual.
3. Each learner utilizes a unique set of experiences in the learning process.
4. Effective learning occurs only when the learner participates actively in the learning process (pp. 179-183).

Coppedge (1974) clarified the meaning of "an individualized instruction program" as opposed to "individualization of instruction." According to Coppedge (1974):
-. . independent study, team teaching, computer assisted instruction, and the use of programmed materials are examples of practices which, though non-conventional, are only components of individualized instruction and as such are not to be confused with an individualized program (p. 272).

## Learning Packages

The component of individualized instruction which forms the basis of the study is the learning package. Basically, the learning package is a self-contained unit based on a topic or theme which contains behavioral objectives related to this theme. Learning activities are designed to reach these objectives and evaluation is designed to determine whether the objectives have been met.

## Content of Learning Packages

One of the first learning packages was called the Learning Activity Package (LAP), and had its conception at Nova Schools in Ft. Lauderdale, Florida. Learning Activity Packages were developed around a major concept or competency, which was broken down into sub-concepts. Each package began with a rationale for the particular concept about to be studied. The package listed objectives which were stated behaviorally and are directly related to the main concept. Each package contained learning activities to aid the student in attaining the behavioral objectives. Three sources of evaluation-a pretest, self-evaluation, and posttest--were designed to measure attainment of the specific behavioral objectives of that particular package. The package contained related or in-depth studies which the student might pursue in addition to the required activities. The
following format was used in constructing the LAP's at Nova Schools:

1. Rationale
2. Performance Objectives
3. Pretest
4. Pretest Analysis
5. Basic References
6. Program for Learning
7. Self-Evaluation
8. Self-Evaluation Analysis
9. Appendix, References, Problems and Applications, Supplementary Information, Glossary, etc. (Arena, 1970, p. 785).

Two of the underlying theories behind the development of the format for learning packages are the learning theories of repetition and reinforcement learning. Watson (1961) stated that "behaviors which are rewarded (reinforced) are most likely to recur" (p. 20). He also stated that "sheer repetition without indications of improvement or any kind of reinforcement (reward) is a poor way to attempt to learn" (p. 20). Learning packages contain learning activities which give students the opportunity to answer questions and evaluate their progress. Self-Evaluation and Self-Evaluation Analysis provide reinforcement in learning packages.

There are several additional approaches to the development of learning packages. Some of these include: Teaching Learning Units (TLU), UNIPAC and Home Economics Learning Packages (HELP). These approaches contain the same basic format. The differences lie in the content of the learning package, the audience or level for which they are developed, and the amount of material included in the units.

## Research Involving Learning

## Packages at OSU

Two studies have been conducted recently at Oklahoma State University using learning packages in clothing courses. Shimonek (1972) conducted a study for the purpose of developing and evaluating a self-paced learning unit for use in the beginning clothing construction course. The four packages developed in the study were based on the LAP format. The results indicated that the difference between pretest and posttest scores was significant at the . OOl level. No significant correlation was found between percentage of gain on posttest and cumulative grade point average, classification, or major field of study.

Rounds (1973) conducted a study for the purpose of developing and evaluating four learning packages to be used in the basic clothing construction course. The results indicated that the difference between the pretest and posttest scores was significant at the . OOl level.

The general consensus of the recommendations in both studies indicated that learning packages for use in clothing, textiles, and merchandising can be developed successfully.

## Related Research

A review of the research conducted at Oklahoma State University in the field of fashion merchandising revealed two additional studies related to this research. Greenwood (1966) investigated the relationship between three-semester grade point averages of 73 students and raw scores on the General Clerical Test. The General Clerical Test
(GCT) is a standardized measure of aptitude in areas considered important in retailing. It contains nine major parts which are grouped into three subscores: clerical, numerical, and verbal. Clerical subscores reflect aptitude in areas of checking and alphabetizing. Numerical subscores indicate aptitude in computation, error location, and arithmetic reasoning. Spelling, reading comprehension, vocabulary, and grammar aptitudes are all reflected in verbal subscores. Greenwood's research revealed a significant correlation between raw scores for the General Clerical Test and three-semester grade point averages.

Johnson (1975) conducted another study which involved the use of the General Clerical Test. In this research the findings indicated a significant relationship between the GCT total and the students overall grade point averages. The purpose of the study was to determine the relationship between job satisfaction and specific academic records of 63 fashion merchandising graduates of Oklahoma State University. A Job Satisfaction Index (JDI) was used to measure job satisfaction. Academic records used included grade point averages and GCT scores. Johnson found that among the correlations calculated in the research the highest coefficients were found within the GCT and the JDI scores rather than within grade point averages and JDI (p. 46).

## Summary

Within this chapter, related literature was discussed with respect to curriculum development. Literature concerning competencybased instruction revealed a trend toward instruction which gives an explicit statement of what the student would be expected to do upon
completion of the course. Individualized instruction was discussed with respect to the trend toward individual rather than group-oriented instruction. This type of instruction takes into consideration the different abilities, skills, and knowledge of various students when they enter a course. One medium of individualized instruction, the learning package, was discussed including research in the use of the learning packages in clothing, textiles, and merchandising courses. Other related research in the area of clothing, textiles, and merchandising was discussed with respect to the use of the GCT as a measure of aptitude. All of these trends were used as a basis for the development of a competency-based learning package for use in the fashion work experience courses at Oklahoma State University.

## CHAPTER III

## PROCEDURES AND ANALYSIS OF DATA

The major purposes of the study were to develop a competencybased learning package, and to analyze the use of these materials by students in the two fashion work experience courses. The four objectives for the study were:

1. To develop one part of the learning package to be used by students during the fashion work experience class and one part to be used by students during the actual work experience period.
2. To evaluate the effectiveness of Part I and Part II of the learning package.
3. To revise Part $I$ of the learning package, and to make recommendations for the revision of Part II.
4. To make recommendations for the use of the learning package in the fashion work experience courses.

Development of the Learning Package

In order to develop a two-part learning package to be used in the work experience class and the actual work experience, the following developmental steps were necessary: 1) selection of a concept for the learning package; 2) development and organization of the learning
package; and 3) pilot test of the learning package.

## Selection of the Concept

The selection of the major concept for use in the learning package was accomplished in two steps: l) verification of 10 performance goals; and 2) selection of one performance goal.

Verification of 10 Performance Goals. Twenty-two possible performance goals for entry level merchandising positions were established in previous research conducted by Greenwood (1972) as discussed in the literature. These research findings indicated that 10 of these performance goals were obtainable during the required student work experience period. For the present study, these 10 performance goals were verified by obtaining additional data from two groups of students who had completed the required work experience. These two groups consisted of 35 students who were enrolled in the work experience seminar during the fall of 1974 and 19 work experience students who were enrolled in the work experience seminar during the fall of 1975. A list of the 22 performance goals from which Greenwood identified the 10 was distributed to each of the 54 students in the two groups. Each student was asked to indicate those performance goals which were accomplished during the first four weeks of the actual work experience period. The data were compiled and used in the selection of the major concept incorporated into the learning package developed in this study. The 10 performance goals verified by the 54 students participating in this study were the same as those identified in the previous study. A table containing the data from both studies appears in Appendix A, p. 70 .

Selection of One Performance Goal. One of the 10 performance goals, "Recommend actions to insure maximum sales," was selected for use in this study. The selection of this performance goal was based on three factors: 1) the performance goal was one of the 10 identified by 50 percent or more of the participants in both groups; 2) the performance goal involved activities performed daily by students during the work experience period; and 3) the performance goal was one with which students have had particular difficulty in the past two years. For the purposes of the study, the only aspect of this performance goal considered was the Sales Productivity concept. The Sales Productivity concept pertains to the dollar sales produced by a salesperson. This concept is concerned with the relationship between maximum sales and factors which indicate sales productivity, such as salary rate, average sale, selling cost, and sales quota goals.

## Organization of the Learning Package

The learning package on Sales Productivity was organized into two parts. Part I of the learning package was designed to be completed by the students enrolled in the work experience class during spring, 1976. Factual information needed by the students prior to the actual work experience was included in this part of the learning package.

The materials for Part I of the learning package on Sales Productivity were developed into four modules. These four modules were entitled: How to Calculate Salary, How to Calculate Average Sale, How to Calculate Selling Cost, and How to Calculate Sales Quota Goals. Each module contained problems using hypothetical sales productivity datä.

Part II of the learning package consisted of four modules. Materials and forms needed by the students during the actual work experience period were included in this part of the learning package. The four modules in Part II were entitled: Calculating Your Salary, Calculating Your Average Sale, Calculating Your Selling Cost, and Calculating Your Sales Quota Goals. Each of these modules contained problems in which the students used their actual sales productivity records during the work experience period.

## Format for the Learning Package

The LAP format which was discussed in the literature was selected as a guide for devising the modular format for the purposes of the study. This module format was particularly suited to the in-class and on-the-job situation in this study. The learning activities were planned to include both required and optional activities. Students who had some difficulty or desired additional practice were offered the opportunity to use the optional learning activities. The modified module format devised for use in the study included the following parts:

1. Rationale
2. Performance Objective
3. Self-Evaluation
4. Self-Evaluation Analysis
5. Program for Learning
a. Required learning activities
b. Optional learning activities
6. Self-Evaluation
7. Self-Evaluation Analysis

An example of one of the modules in Part $I$ and one of the modules in Part II is included in Appendix B, p. 74.

## Pilot Test for the Learning Package

A group of students who had previously completed the two fashion work experience courses were selected as a pilot group to evaluate the modules developed for Part I and Part II of the learning package. These students were asked to read carefully each of the eight modules and to react orally in terms of the clarity of statements, appropriateness of content, and degree of comprehension. They also responded to a questionnaire offering an opportunity for students to make suggestions for improving both parts of the learning package. Comments and suggestions made by the pilot group included the addition of a formula in the directions for completing each problem and the addition of several computation problems.

Evaluation of the Learning Package

In order to evaluate the effectiveness of the learning package, the following steps were necessary: 1) selection of a sample;
2) selection and administration of the General Clerical Test;
3) development and administration of the pretest and posttest test;
4) use of the learning package; 5) development and administration of questionnaires; 6) use of telephone interviews; and 7) analysis of data.

## Selection of Sample

The population for the study consisted of students enrolled in the work experience class during the spring of 1976. The samples for Parts I and II of the learning package were drawn from the same population but met different criteria.

Sample for Part I. Criteria for determining the sample for Part I of the study included: 1) students who completed the General Clerical Test; 2) students who completed the pretest and posttest; and 3) students who completed the four modules in Part $I$ of the learning package. The number of students who met all the criteria for the sample was 35.

Sample for Part II. Criteria for determining the sample for Part II of the study included: 1) students who were included in the sample for Part $I$; 2) students who were employed and completed the 160 hours full-time requirement during the six-week period from May 15 through July 1, 1976; 3) students who completed the four modules in Part II of the learning package; and 4) students who completed the questionnaire for Part II by July 15, 1976. Eighteen of the 35 students met these criteria.

## Selection and Administration of GCT

An instrument was selected to measure the aptitude of students in the sample. The instrument selected for use in the study was the General Clerical Test. The General Clerical Test (GCT) is a standardized three-part test designed to measure abilities which are considered
important in relation to retail jobs. The selection of the GCT for use in the study was based on its proven validity as a measure of retail job competencies, and on the basis of studies conducted by Greenwood (1966) and by Johnson (1975) which were reviewed in the literature. Both of these studies established a significant relationship between aptitude as measured by GCT and grade point average of fashion merchandising students.

The GCT was administered to the total population selected for this study. The students in the work experience class were given the GCT prior to the presentation of the learning package.

The data from the GCT were compiled and recorded on a Data Compilation Chart. Each GCT subscore and the total scores were recorded. The following is an example of the chart used for this data compilation.

TABLE I

EXAMPIE OF THE DATA COMPILATION CHART, STAGE ONE

|  |  | General Clerical Test |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Student <br> Number | Part I | Part II | Part III | Total |
| 01 | 45 | 75 | 25 | 40 |
| 02 | 25 | 40 | 15 | 20 |

The complete Data Compilation Chart is located in Appendix C, p. 99 . The GCT scores were used in the present study to determine whether there was a positive relationship between aptitude and percentage of gain in pretest and posttest scores.

## Development and Administration of

Pretest and Posttest

In order to evaluate the effectiveness of Part $I$ of the learning package, an overall pretest and posttest was developed using questions similar to those contained in the self-evaluations in each module. The pretest and posttest appears in Appendix D, p.101. The posttest was identical to the pretest. The instrument was constructed with the use of a table of specifications. The following procedures were used in preparation of the table of specifications for the pretest and posttest:

1. Identification of the learning results and content areas to be measured by the test.
2. Weighing the learning results and content areas in terms of their relative importance.
3. Building a table in accordance with these relative weights by distributing the test items proportionately among the relevant cells of the table.
4. Requesting that a panel of four experts place the test items in the appropriate cells. This panel included the thesis committee and one other expert from the Department of Home Economics Education.

Each question was given equal weight and was classified according
to one of the six categories for behavioral objectives in the cognative domain: knowledge, comprehension, application, analysis, synthesis and evaluation. The table of specifications appears in Appendix E, p. 107.

A pretest over Part $I$ of the learning package was administered to the total population selected for the study. Students in the work experience class in spring, 1976 were given the pretest before the learning package was made available. The posttest was administered after completion of Part I of the learning package.

The data from the pretest and posttest were compiled and recorded on the Data Compilation Chart. The following is an example of the chart used to compile this data.

TABLE II

EXAMPLE OF THE DATA COMPILATION CHART, PART TWO

| Student Number | Pretest | Posttest |
| :---: | :---: | :---: |
| 01 | 35 | 42 |
| 02 | 19 | 23 |

A complete Data Compilation Chart is located in Appendix C, p. 99.

## Use of the Learning Package

Part I of the learning package was completed by students in class during the spring, 1976. Part II of the learning package was completed during the actual work experience period in the summer of 1976.

Use of Part I. The four modules in Part I of the learning package were completed by students in the work experience class in the spring of 1976. During the first class period general instructions were given and the students completed the modules at their own pace during three class periods. The four modules of Part I were kept by the students to be used as reference in completing Part II.

Use of Part II. The four modules in Part II were distributed to students following the completion of Part I. The students were instructed to complete one module during each week of the work experience if they worked four weeks or more between May 15, 1976 and July 1, 1976.

## Development and Administration of

## Questionnaires

Two questionnaires were designed for use in evaluating the effectiveness of the learning package. One questionnaire was developed for Part I of the learning package and one was developed for Part II.

Questionnaire for Part I. A questionnaire for Part I of the learning package was developed with questions concerning the content, format, degree of difficulty, and students' attitude toward Part I of
the learning package. There was also an opportunity for students to offer suggestions for the improvement of the learning package. The questionnaire appears in Appendix F, p. 109. The questionnaire was administered after students completed Part I of the learning package. Student responses to the questionnaire for Part I of the learning package were collected and percentages were computed for responses to each question. The suggestions for changes in this part of the learning package were compiled for consideration in making revisions.

Questionnaire for Part II. A questionnaire for Part II of the learning package was developed with questions concerning content, format, degree of difficulty, and students' attitude toward Part II of the learning package. The questionnaire appears in Appendix G, p. 112. There was also an opportunity for students to offer suggestions for improvement of this part of the learning package. The questionnaire was mailed to the students. Students were instructed to complete the questionnaire after they had finished Part II of the learning package. The students returned the completed questionnaire to the researcher.

Student responses to the questionnaire for Part II of the learning package were collected. Percentages were computed for responses to each question. The findings from the questionnaire were compiled and used as a basis for recommending revisions to Part II of the learning package.

Use of Telephone Interviews

Additional data for evaluating Part II of the learning package were collected by conducting telephone interviews. One interview was conducted between the researcher and the students after the first two weeks of the actual work experience period and one was conducted after the completion of the actual work experience period. Interviews between the researcher and the merchants who employed the students were conducted after the students completed the actual work experience period. Two guides were developed for use during the student interviews and one was developed for use during the merchant interviews.

Student Interview Guides. The student interview guide used after the completion of the first two weeks of the actual work experience period included questions which helped identify specific problems the student had following the procedures outlined in the learning package and other problems relating to the individual work situations. The guide for the first student interviews appears in Appendix H, p. 116. The student interview guide used after completion of the actual work experience period included questions concerning the use of the learning package in the work experience classes. The guide for the second student interviews appears in Appendix I, p. 118. Student responses to the interviews were collected and percentages were computed for the responses to each question. Additional comments made by the students were summarized during the interviews.


#### Abstract

Merchant Interview Guide. The merchant interview guide was designed to determine merchants' reactions to the use of the learning package during the actual work experience period. The guide used for the merchant telephone interviews appears in Appendix J, p. 120. Merchant interviews were conducted after the students completed the actual work experience period. Merchant responses to the interview questions were collected and percentages were computed for responses to each question. Additional comments made by the merchants were summarized during the interviews.


## Analysis of Data

A statistical analysis was made of the data from Part I of the learning package. The data from Part II was analyzed in terms of students' and merchants' responses.

## Data From Part I

A t-test was used to test the hypothesis concerning the sifnificant difference between pretest and posttest scores. The Pearson Product Moment Correlation Coefficient was chosen to determine the degree of relationship between the GCT and the pretest and posttest scores.

A Data Compilation Chart was prepared prior to keypunching the data on IBM cards. The Data Compilation Chart appears in Appendix C, p. 99. A chain print-out was prepared and key punched information was verified by the researcher. All statistical analyses were made using the Statistical Analysis System (SAS).

## Data From Part II

Student responses to the questionnaire concerning Part II of the learning package were computed by percentages, analyzed in terms of reactions to content and format, degree of difficulty, student attitude toward the learning package, and use of the learning package. Responses during the researcher's telephone interviews with merchants were analyzed to determine the merchants reactions to use of the learning package during the work experience period.

Formulation of Revisions
and Recommendations

The revisions of Part $I$ and recommendations for revisions of Part II of the learning package were accomplished in the following manner.

## Revisions of Part I

Revisions of content and format of Part I of the learning package were made based on the findings in the pretest and posttest analysis, and the student responses to the questionnaire.

## Recommendations for Revision of Part II

Recommendations for revision of Part II of the learning package were made based on the student responses to the questionnaire and students' and merchants' reactions to telephone interviews.

## Recommendations for Use of the Learning

## Package

Final recommendations were made for the use of the learning package in the two required work experience courses. These recommendations were based on the findings from the second student telephone interviews. Recommendations were made concerning use of class time, and use of the learning package in-class and on-the-job.

## Summary

Within this chapter the methodology was discussed concerning the three subpurposes and according to the procedures followed. The discussion included the method of developing the learning package, the evaluation of the learning package, revisions and recommendations for revision of the learning package, recommendations for use of the learning package, and the treatment of data.

## FINDINGS AND DISCUSSION

The over-all purposes of the study were to develop a competencybased learning package and to analyze the use of these materials in the work experience courses. This chapter presents the findings from the analysis of the learning package. The findings are presented in the following order: 1) findings from Part $I$ of the learning package; 2) findings from Part II of the learning package; 3) summary of revisions and recommendations for revisions for Part I and Part II of the learning package; and 4) use of the learning package in the work experience courses.

The sample group used in the study consisted of 35 students in the spring 1976 work experience course who met the criteria discussed in the procedures and 18 students in the summer 1976 actual work experience period.

Findings from Part I of the Learning Package

The findings from Part $I$ of the learning package are discussed in the following manner: 1) examination of hypotheses; 2) findings and revisions based on pretest and posttest; and 3) findings and revisions based on questionnaires.

## Examination of Hypotheses

## Hypothesis 1: There will be no significant improvement between

 student scores on pretest and posttest for Part I of the learning package. In order to test the above hypothesis, the students' pretest scores were compared with their posttest scores. The comparison of pretest and posttest scores appears in Table III. The mean score on the pretest was 27 with a standard deviation of 5.35. The mean score on the posttest was 38.8 with a standard deviation of 4.39. The students' t-ratio for a paired comparison of raw scores and percent scores was significant at the .Ol level of confidence; therefore, the hypothesis was rejected.TABLE III

COMPARISON OF PRETEST AND POSTTEST SCORES

| Test | N | Low | High | Mean* | S.D: |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Pretest | 35 | 14.0 | 36.0 | 27.0 | 5.35 |
| Posttest | 35 | 23.0 | 44.0 | 38.8 | 4.39 |
| Difference | 35 | 4.00 | 21.0 | 11.8 | 4.75 |
| $\%$ Gain | 35 | 0.16 | 1.50 | 0.47 | 0.28 |

*The students t-ratio was significant at the .Ol level of confidence with 34 degrees of freedom.

The distribution of pretest and posttest scores of the students is shown in Table IV. Students' scores on the pretest and posttest appear in Appendix $K$, page 122. With a total of 44 possible points, students' scores on the pretest ranged from 14 to 36 , while posttest scores ranged from 23 to 44. The largest group of students, 27 students or 78 percent, scored between 20 and 34 on the pretest and 31 or 88 percent scored between 35 and 44 on the posttest.

TABLE IV

DISTRIBUTION OF PRETEST AND POSTTEST SCORES

$$
N=35
$$

| Score | Pretest |  | Posttest |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Score | Number | Percent |
| 1-4 | 0 | 0 | 1-4 | 0 | 0 |
| 5-9 | 0 | 0 | 5-9 | 0 | 0 |
| 10-14 | 1 | 3 | 10-14 | 0 | 0 |
| 15-19 | 1 | 3 | 15-19 | 0 | 0 |
| 20-24 | 9 | 26 | 20-24 | 1 | 3 |
| 25-29 | 9 | 26 | 25-29 | 1 | 3 |
| 30-34 | 9 | 26 | 30-34 | 2 | 6 |
| 35-39 | 3 | 8 | 35-39 | 14 | 40 |
| 40-44 | 3 | 8 | 40-44 | 17 | 48 |

The percent of gain between the pretest scores and the posttest scores is presented in Table V. Each of the 35 students made a higher score on the posttest than on the pretest. Twenty-nine percent of the students had a gain of between 25 and 48 percent, and 29 percent had a gain of between 50 and 74 percent. Since 17 percent had a gain of between 75 and 100 percent, a total of 46 percent of the students had gained 50 percent or more.

TABLE V

PERCENT OF GAIN ON PRETEST AND POSTTEST
$\mathrm{N}=35$

| Percent of Gain |  |  |
| :---: | :---: | :---: |
| $0-24$ | Number | Ptudents |
| Percent |  |  |
| $25-49$ | 9 | 25 |
| $50-74$ | 10 | 29 |
| $75-100$ | 10 | 29 |

Hypothesis 2. There will be no significant correlation between percent of gain as indicated by pretest and posttest scores for Part I of the learning package and the aptitude of students as measured by the General Clerical Test. In order to test the above hypothesis the Pearson Product Moment Correlation Coefficient was calculated to
determine the relationship between the percent of gain on the pretest and posttest scores and the GCT scores. The correlation coefficients appear in Appendix L, p. 125. The correlation coefficients for the percent of gain on the pretest and posttest scores and the GCT scores are shown in Table VI. The correlation coefficients were not significant at the . 05 level, therefore the hypothesis could not be rejected. These findings indicate that there was not a strong relationship between the students' gain in knowledge as measured by the pretest and posttest and the students' aptitude as measured by the GCT.

TABLE VI
CORRELATION BETWEEN PERCENT OF STUDENT FAIN ON PRETEST AND POSTTEST SCORES AND GCT SCORES

$$
N=35
$$

| Variable | Correlation <br> Coefficient |
| :---: | :---: |
| GCT 1- clerical and \% Gain | .0439 |
| GCT 2 - numerical and \% Gain | .1547 |
| GCT 3- verbal and \% Gain | .2886 |
| GCT T - Total and \% Gain | .2313 |

## Findings and Revisions Based on

Pretest and Posttest

The findings and revisions for the pretest and posttest will be discussed under the following headings: Findings Based on Pretest and Posttest; and Revisions Based on Pretest and Posttest.

Findings Based on Pretest and Posttest. For the purposes of revision, the number and percent of students who answered each test item correctly were calculated. These data appear in Appendix $M$, p. 128 . The number and percentage of items which were answered incorrectly by 25 percent or more of the students in both the pretest and posttest appear in Table VII.

TABLE VII
POSTTEST ITEMS ANSWERED INCORRECTLY BY TWENTY-FIVE PERCENT OR MORE OF THE STUDENTS
$\mathrm{N}=35$

| Test Item* | Number of Students | Percent of Students |
| :---: | :---: | :---: |
| 9 | 15 | 35 |
| 13 | 16 | 38 |
| 20 | 18 | 41 |
| 37 | 14 | 29 |

[^0]Those test items which were answered incorrectly by 25 percent or more of the students on both the pretest and posttest were studied in relation to content and structure of the question. Following is a list of the test items which were answered incorrectly, the correct answers are indicated:
9. The number of sales completed during a period whether cash, COD, charge, etc. (matching term and definition) (answer: transactions )
13. Which of the following kinds of data are necessary to determine net sales? (multiple choice )
(answer: 2, 3, 4)
(1) transactions
(2) returns
(3) total sales
(4) allowances
(5) total salary
19. Which of the following kinds of data are necessary
to determine salary plus commission? (multiple choice )
(answer: 1, 4, 5)
(1) net sales
(2) hourly salary
(3) returns
(4) base salary
(5) percentage of commission
20. Which of the following kinds of data are necessary to determine salary plus commission on sales over a certain quota: (multiple choice ) (answer: 1, 2, 4, 5)
(1) sales quota
(2) percentage of commission
(3) net sales
(4) sales quota for other employees
(5) base salary
37. A salesperson in the sportswear department earns a salary of $\$ 80.00$ weekly. The standard selling cost for the department is $4 \%$. What is her sales quota goal?
(computation problem ) (answer: $\$ 80 \div 4=\$ 2,000$ )

A careful study of the test items revealed the following possible reasons for incorrect answers: errors in number nine could be due to the lack of clarity in the definition for the terms transactions; errors in numbers 13,19 , and 20 could be due to lack of understanding of the difference between calculating net sales from gross sales; errors in number 37 could be due to lack of ability to work the computation problems accurately. These possible reasons for incorrect answers were related to both content and structure of the questions.

Revisions Based on Pretest and Posttest. Based on the findings from the study of the pretest and posttest items which were answered incorrectly, the following suggestions were made for revisions to Part I of the learning package:

1. Revise the definitions for the term transactions in Module 2 .
2. Add a computation problem on calculating net sales from gross sales to Module No. 1.
3. Add an additional computation problem to each module.

## Findings and Revisions Based on

## Questionnaire for Part I

The findings and revisions based on the questionnaire for Part I are discussed under the following headings: Findings from the Questionnaire for Part I; and Revisions Based on the Questionnaire for Part I.

Findings from the Questionnaire. In Part A of the questionnaire students were asked what they thought was the most desirable feature of the learning package. Their responses to Part $A$ of the questionnaire appear in Table VIII. Ninety-seven percent (97\%) indicated that they could progress at their own speed. In response to a question concerning the length of the modules, the highest response, thirty-two percent $(32 \%)$ of the students indicated they were neither too short nor too long. Ninety-four percent (94\%) of the students indicated the conteet of the modules was adequate on all learning activities. One hundred percent $(100 \%)$ found that the directions were easy to understand. The degree of difficulty of the modules was considered appropriate by ninety-three percent (93\%) of the students. The optional learning activities were considered helpful by sixty percent $(60 \%)$ of the students. The self-evaluation analysis was considered helpful in finding the correct answer by one hundred percent (100\%) of the students. The students were given a choice as to how they
would choose to have the course material presented, and ninety-three percent (93\%) chose a learning package. The type of self-evaluation questions preferred by forty-seven percent (47\%) of the students was multiple choice.

TABLE VIII
SUMMARY OF STUDENT RESPONSES TO PART A OF THE QUESTIONNAIRE CONCERNING PART I OF THE

LEARNING PACKAGE

$$
N=35
$$

Item
Response
Number Percent

1. The most desirable feature of the modules was:
a. they didn't go too fast
1 3
b. could progress at my own speed 34
2. The most undesirable feature of the modules was:

| a. too short | 9 | 28 |
| :--- | ---: | ---: |
| b. too long | 11 | 30 |
| c. neither | 15 | 42 |

3. The directions for the modules were:
a. adequate on all learning activities 3394
b. inadequate on all learning activities --
c. adequate on some and inadequate on others 2

6
4. The directions for the modules were:
a. easy to understand
35
100
b. difficult to understand

```
TABLE VIII (Continued)
```

| Item | Response <br> Number |
| :--- | :--- |

5. The modules were:
a. too easy
1
7
b. too difficult
--
--
c. appropriate
34
93
6. The optional learning activities were:
a. helpful
21
60
b. unnecessary
14
40
7. The self-evaluation analysis:
a. often helped to find the correct answer 35

100
b. were a waste of time
--
--
8. If you had a choice as to how the course material would be presented, you would choose:
a. lecture
2
4
b. textbook
1
3
c. learning package
33
93
9. Which type of self-evaluation questions did you prefer?
a. computation problems and application
$9 \quad 28$
b. multiple choice $16 \quad 47$
c. short answer
--
d. matching

8
25

Part $B$ of the questionnaire was concerned with the students' attitudes toward using learning packages. The students were asked to react to four statements and to indicate the degree to which they
agreed with each of the statements. The responses appear in Table IX. Fifty percent (50\%) of the students strongly agree with the statement that the learning package was a valuable aid to learning. Sixty-three percent ( $63 \%$ ) strongle agreed with the statement that their attitude toward the learning package was completely favorable.

TABLE IX
SUMMARY OF STUDENT RESPONSES TO PART B OF THE QUESTIONNAIRE CONCERNING PART I OF THE LEARNING PACKAGE
$N=35$

| Statement | Responses by Percentage |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { SA } \\ & \text { No. } \end{aligned}$ | \% | $\begin{aligned} & \text { A } \\ & \text { No. } \end{aligned}$ | \% | $\begin{aligned} & \text { N } \\ & \text { No. } \end{aligned}$ | \% | $\begin{aligned} & \text { D } \\ & \text { No. } \end{aligned}$ | \% | $\begin{aligned} & \text { SD } \\ & \text { No } \end{aligned}$ | \% |
| 1. I personally enjoyed using the learning package. | 16 | 47 | 15 | 43 | 2 | 5 | 2 | 5 | -- | -- |
| 2. While using the learning package I felt relaxed and at ease. | 16 | 47 | 15 | 43 | 2 | 5 | 2 | 5 | -- | -- |
| 3. I felt the learning package was a valuable aid to learning. | 17 | 50 | 11 | 31 | 4 | 10 | 3 | 9 | -- | -- |
| 4. My attitude toward the learning package was completely favorable. | 22 | 63 | 13 | 37 | --- | -- | -- | -- | -- | -- |

Code:

```
SA - Strongly agree
    A - Agree
    N - Neutral
    D - Disagree
SD - Strongly disagree
```

The questionnaire provided an opportunity for each student to offer comments concerning improving the learning packages. Five of the 35 students made favorable comments. These favorable comments are summarized below:

1. It was helpful. The testing of what we knew at the first and end, and the optional learning activities were a good idea.
2. The modules were easy to understand, because the instructions were so good. I really felt $I$ was learning something and they were better than a book. I like the "workbook" type.
3. Very helpful in setting out the problems step by step. Helped keep things straight.
4. I thought it was very interesting and a good way to learn. With the review in the modules it was easier to learn the answers. I enjoyed doing them and they were helpful.
5. They should be developed into an entire unit of learning packages for this class.

Five of the students made comments concerning the improvement of the learning package. These comments are summarized below:

1. We could have done the modules at home and taken up less class time.
2. We did the learning package in such a short time that $I$ feel I do not remember as well as I feel I should.
3. Too much repetition.
4. They need more computation problems.
5. Need a different second self-evaluation.
6. The salaries represented in the problems in Module 1 were not realistic in terms of current wages.

Revisions Based on Questionnaire. Based on the findings from the questionnaire the following suggestions for revisions were made:

1. Add more computation problems to the modules.
2. Increase the salaries used in the computation problems in Module No. 1 to represent minimum wage.

The comments concerning too much repetition, and the use of identical self-evaluations were related and considered together. The decision to retain this aspect of the modules was based on the learning theories of repetition and reinforcement learning which were discussed in the literature. The module format used in this study was designed to guide the learners' experiences to provide enough practice or repetition to fix a new behavior.

Some suggestions were concerned with the use of the learning package. These suggestions are discussed under recommendations for the use of the learning package which appears later in this chapter.

## Findings From Part II of the Learning Package

Part II'of the learning package was used by 18 students during their actual work experience in retail stores during the summer of 1976. The findings from Part II of the learning package are discussed in the following manner: 1) findings and recommendations for revisions based on the questionnaire; 2) findings and recommendations based on the student telephone interviews, and 3) findings and recommendations
for revisions based on the merchant telephone interviews.

## Findings and Recommendations for Revisions

Based on the Questionnaire for Part II

The findings and revisions based on the questionnaire for Part II of the learning package will be discussed under the following headings: Findings from the Questionnaire for Part II; and Recommendations for Revisions Based on the Questionnaire for Part II.

Findings From the Questionnaire. The responses to the questionnaire concerning Part II of the learning package appear in Table X. Of the 18 students who returned questionnaires, eighty-four percent (84\%) felt that the instructions for each module were adequate. Ninety-seven percent (97\%) of the students felt that the self-evaluations in each module were helpful in finding the correct answer. The learning activities in each module were considered helpful in calculating their own sales productivity by one hundred percent (100\%) of the students. The degree of difficulty of the modules was considered appropriate by ninety-four percent (94\%) of the students. The evaluation of sales productivity form was considered helpful and complete by seventy-seven percent (77\%) of the students.

TABLE X
STUDENT RESPONSES TO QUESTIONNAIRE CONCERNING
PART II OF THE LEARNING PACKAGE

$$
N=18
$$

| Question | Response |
| :---: | :---: |
|  | Number Percent |

1. The instructions for each module were:

| a. adequate | 15 | 84 |
| :--- | :---: | :---: |
| b. inadequate | -- | -- |
| c. adequate in some and inadequate in |  | 16 |

2. The Self-Evaluations in each module were:
a. helpful in finding the correct answer 1794
b. rarely helpful in finding the correct answer
-- --
c. a waste of time

1
3. The learning activities in each module were:
a. helpful in calculating my own sales productivity

100
b. rarely helpful in calculating my own sales productivity
--
c. a waste of time
4. The degree of difficulty of each module was:
a. too easy
1
6
b. too difficult
--
c. appropriate 17
94
5. The evaluation of sales productivity
form in each module was:
a. helpful and complete 14
b. helpful but incomplete 43
c. not necessary

During the first four weeks on the job, the instructions in the modules required that the students keep sales records. The students were instructed to keep records of their total sales, average sale, selling cost, and sales quota goals. The students were required to study their sales productivity in terms of improvements evidenced by increases of total sales and average sale, decreases in selling cost, and achievements of sales quota goals. A summary of the students ${ }{ }^{1}$ sales records was included in the questionnaire for Part II of the learning package and these data appear in Table XI.

TABLE XI

SUMMARY OF STUDENT IMPROVEMENT IN SALES PRODUCTIVITY
FROM THE FIRST WEEK TO THE FOURTH WEEK OF THE
ACTUAL WORK EXPERIENCE PERIOD
$N=18$

| Measures of Sales |  |  | Sales Productivity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Productivity | Improved |  | No Change |  | Failed to No 。 | Improve \% |
|  | No. | \% | No. | \% |  |  |
| Total Sales | 11 | 61 | - | -- | 7 | 39 |
| Average Sale | 14 | 78 | -- | -- | 4 | 22 |
| Selling Cost | 9 | 50 | 5 | 28 | 4 | 22 |

From the first week to the fourth week on-the-job, sixty-one percent (61\%) of the students increased their total sales. Seventy-eight percent (78\%) of the students increased their average sale. Fifty
percent ( $50 \%$ ) of the students decreased their selling cost percentage. Seventy-three percent (73\%) of the students met the sales quota goals established for the first week and for the fourth week. The students ${ }^{\text {P }}$ sales productivity records appear in Appendix N, p. 130.

The students were given an opportunity in the questionnaire to make comments concerning the learning package. Two of the students made favorable comments. These comments are summarized below:

1. The learning package was very explanatory and sufficient.
2. The learning package was very helpful in making me more aware of my sales productivity.

Two of the students made comments concerning the improvement of the learning package. These comments are summarized below:

1. I am in a small store and we do things besides sell.
2. I am a roving salesperson and I don't have a sales quota goal.

Recommendations for Revisions Based on the Questionnaire. After careful study of the responses to the questionnaire for Part II of the learning package the following recommendations for revisions were made:

1. Add a column for other non-sales duties to the evaluation of sales productivity form.
2. Add more explicit instructions for students to project a sales quota goal if the store doesn't establish one.

## Findings and Recommendations for Revisions <br> Based on Student Telephone Interviews

The findings and recommendations for revisions based on the student telephone interviews will be discussed under the following headings: Findings From the First Student Telephone Interviews; Recommendations for Revisions Based on the First Student Telephone Interviews; Findings Based on the Second Student Telephone Interviews; and Recommendations for Revisions Based on the Second Student Telephone Interviews.

Findings From the First Telephone Interviews. Responses to the first telephone interviews appear in Table XII. Eighty-nine percent ( $89 \%$ ) of the students found the modules to be completely selfinstructional. One hundred percent (100\%) liked the format of the modules. Seventy-seven percent (77\%) felt the evaluation of sales productivity form was complete and needed no additional information. The module on average sale was most helpful to forty-two percent (42\%) of the students. Sixty-six percent (66\%) of the students offered no suggestions for changing the modules. Fifty-eight percent (58\%) of the students felt that their sales had increased as a result of becoming more aware of the factors which influenced their sales productivity.

TABLE XII

> STUDENT RESPONSES TO TELEPHONE INTERVIEW NO. 1 $N=18$

| Question | Responses |
| :---: | :---: |
| No. |  |

1. Did you feel that the modules $5-8$ were completely self-instructional?
a. yes
16
89
b. no
2
11
2. Did you like the format?

| a. yes | 18 | 100 |
| :--- | :---: | :---: |
| b. no | -- | -- |

3. What information (data) would you add to the Evaluation of Sales Productivity Form?
$\begin{array}{lrl}\text { a. nothing } & 14 & 77 \\ \text { b. other } & 4 & 23\end{array}$
4. Which module area was most helpful to you?

| a. salary | 2 | 11 |
| :--- | :--- | :--- |
| b. average sale | 8 | 44 |
| c. selling cost | 2 | 11 |
| d. sales quota goal | 6 | 34 |

5. If you could change something about the module what would you change?
a. nothing
12
66
b. other
34
6. Has becoming more aware of your sales productivity caused it to increase?
a. yes
10
58
b. no
8
42

During the first student telephone interviews, the following comments were made relative to the improvement of Part II of the learning package.

1. Some days I did stockwork instead of selling. There should be a way to show this on the evaluation of sales productivity form.
2. The average sale, selling cost, and sales quota goals should be computed by week and month as well as by day.
3. My store didn't give me a sales quota goal.

Recommendations for Revisions Based on the First Student Telephone Interview. Based on the findings during the first student telephone interview, the following recommendations for revisions of content and format of the learning package were made:

1. Add the following to the Evaluation of Sales Productivity Form:
a. a column for other non-sales duties.
b. instructions for computing average sales, selling cost, and sales quota goals by week and month as well as by day.
2. Add more explicit instructions for students to project a sales quota goal if the store doesn't have one.

Findings Based on Second Student Telephone Interview. The second student telephone interviews were conducted after completion of the fourth week of work experience. Responses to this interview appear in Table XIII. The second telephone interview was concerned with the use of the learning package. One-hundred percent (100\%) of the

```
students referred to the first four modules for reference while using
the last four modules. Fifty-five percent (55%) would have liked to
receive Part II at the same time as Part I. Eighty-four percent (84%)
used the two parts of the learning package simultaneously. Sixty-six
percent (66%) would have liked to have known more about the modules
in Part II while completing Part I. Eighty-four percent (84%) thought
it was better to work Part I of the learning package in class.
```

TABLE XIII

STUDENT RESPONSES TO TELEPHONE INTERVIEW NO. 2 $\mathrm{N}=18$

| Question | Responses |  |
| :---: | :---: | :---: |
|  | No. | Percent |
| 1. Did you refer to the first four modules for reference while using the last four? |  |  |
| a. yes | 18 | 100 |
| b. no | -- | -- |
| 2. Do you think it would be better to receive both parts of the learning package at the same time? |  |  |
| a. yes | 10 | 55 |
| b. no | 8 | 45 |
| 3. Do you have two parts of the learning package together right now? |  |  |
| a. yes | 15 | 84 |
| b. no | 3 | 16 |

TABLE XIII (Continued)

| Question | Responses |  |
| :---: | :---: | :---: |
|  | No. | Percent |
| 4. Would you have liked to have known more about Part II while you were doing Part I? |  |  |
| a. yes | 12 | 66 |
| b. no | 6 | 34 |
| 5. Was it better to work Part I in class or would you rather work both parts on your own? |  |  |
| a. yes | 15 | 84 |
| b. no | 3 | 16 |

The following comment concerning the use of the learning package was made by several students during the second student interviews:

It would be better to receive both parts of the
learning package at the same time.

Recommendations for Revisions Based on the Second Student Telephone
Interview. The revisions based on the comments concerning the use of the learning package will be discussed under recommendations for use of the learning package which appears later in this chapter.

## Findings Based on Merchant

## Telephone Interviews

The researcher conducted telephone interviews with the merchants in stores where students used Part II of the learning package. The


#### Abstract

interviews were conducted after the students had completed the first four weeks of the required work experience. The purpose of this interview was to determine the merchants' attitude toward the use of the learning package during the work experience.


#### Abstract

Findings From Merchant Interviews. Responses to the merchant telephone interviews appear in Table XIV. Eighty-three percent (83\%) of the merchants felt that the students were better prepared for their jobs than other students who had worked for them recently. One-hundred percent (100\%) of the merchants approved of the fact that the students wanted to learn all they can about the business. Eighty-three percent ( $83 \%$ ) of the merchants had not seen the student's materials pertaining to the work experience requirements at Oklahoma State University. The three merchants who had seen the student's materials pertaining to the work experience made favorable comments about the learning package.


TABLE XIV

STUDENT RESPONSES TO MERCHANT TELEPHONE INTERVIEW

$$
N=18
$$

| Question | Responses <br> Percent <br> No. |
| :---: | :---: |

1. Does this student seem better prepared for the job than other students who have worked for you recently?
a. yes
15
84
b. no
3

TABLE XIV (Continued)

| Question | Responses |  |
| :---: | :---: | :---: |
|  | No. | Percent |
| 2. Do you approve of the fact that the student wants to learn all she can about the business or does she take up too much of your time? |  |  |
| a. yes | 18 | 100 |
| b. takes up too much time | -- | -- |
| 3. Have you seen any of the materials that the student has pertaining to work experience requirements at $O S U$ ? What is your reaction? |  |  |
| a. haven't seen materials | 15 | 84 |
| b. favorable | 3 | 16 |
| c. not favorable | -- | -- |
| 4. Are you aware that she is keeping sales productivity records? What is your reaction? |  |  |
| a. not aware | 10 | 55 |
| b. favorable | 8 | 45 |
| c. not favorable | -- | -- |
| 5. Has the student asked questions that you feel will help her learn more about retailing? |  |  |
| a. yes | 18 | 100 |
| b. no | -- | -- |
| 6. Has the student asked questions that you feel are none of her concern? |  |  |
| a. yes | -- | -- |
| b. no | 18 | 100 |
| 7. Do you feel that the student is neglecting any of her sales duties to work on class assignments? |  |  |
| a. yes | -- | -- |
| b. no | 18 | 100 |

Fifty-three percent (53\%) of the merchants were aware that the students were keeping sales productivity records, and all had favorable reactions. One hundred percent (100\%) of the merchants reported that the students had asked questions which would help them learn more about retailing. One hundred percent (100\%) of the merchants said that the students had not asked any questions which were not of their concern. One hundred percent $(100 \%)$ of the merchants said that the students weren't neglecting any of their sales duties to work on class assignments.

Recommendations for Revisions Based on the Merchant Telephone Interviews. The merchant interviews were concerned with the use of the learning package. The recommendations for use based on these interviews are discussed under recommendations for use of the learning package which appears later in this chapter.

Summary of Revisions and Recommendations
for Parts I and II of the Learning Package

Based on the findings of this study revisions have been made to Part I and recommendations for revisions have been made for Part II of the learning package. Revisions were made for Part I. Recommendations for revision were made for Part II. These revisions and recommendations for revisions are summarized below:

## Summary of Revisions of Part I of the

## Learning Package

1. The definition of transactions was revised in Module No. 2.
2. A computation problem was added to each module.
3. The salaries in the learning activities and computation problems in Module No. 1 were increased to represent minimum wage.

The detailed revisions for each module appear in Appendix O, p. 133.

Summary of Recommendations for Revisions
of Part II of the Learning Package

1. A column for other non-sales duties should be added to the Evaluation of Sales Productivity Form.
2. Instruction should be added to the Evaluation of Sales Productivity Form indicating how to average the totals for the average sales, selling cost, and sales quota goals.
3. Instructions in Module No. 8 should be more explicit on how to project a sales quota goal if the store doesn't give one.

Recommendations for Use of the Learning Package in the Work Experience Courses

Based on the findings from the questionnaires concerning Part I and Part II, the responses to the second student telephone interviews, and the responses to the merchant telephone interviews, the following
recommendations were made for use of the learning package in the work experience courses.

## In-Class Use of the Learning Package

1. Continue to use Part $I$ of the learning package during the regular work experience class.
2. Distribute Part I and Part II of the learning package simultaneously during the work experience class.
3. Allow class time to introduce the total learning package, and to present the instructions for use of the learning package.
4. Continue use of class time for a Pretest and Posttest of Part I to be used for evaluation purposes.
5. Review the use of Part II after the completion of Part I.

## On-the-Job Use of the Learning Package

1. Continue to use Part II of the learning package during the first four weeks of the required experience period.
2. Continue to conduct a telephone interview with the students following completion of the first two weeks of the required work experience period.
3. Continue to conduct a telephone interview with the merchants following completion of the first two weeks of the required work experience period.
4. Continue to collect sales productivity data from the students at the end of the first four weeks of the required work experience period.


#### Abstract

A suggested time schedule for use of the learning package during the work experience class, actual work experience period, and work experience seminar appears in Appendix P, p. 138.

\section*{Summary}

Within this chapter, the discussion of the findings was divided into three major areas. Presented first were the findings from Part I of the learning package which included examination of the hypotheses, findings and revisions based on the pretest and posttest, and findings and revisions based on the questionnaires. Presented next were the findings from Part II of the learning package which included findings and recommendations for revisions based on the questionnaire, findings and recommendations for revisions based on the student telephone interviews, and findings and recommendations for revisions based on the merchant telephone interviews. Finally, recommendations were made for use of the learning package in the work experience courses.


Purposes of the Study

The major purposes of the study were to develop a competencybased learning package, and to analyze the use of these materials by students in the two fashion work experience courses. The four objectives of the study were: l) to develop one part of the learning package to be used by the students in the work experience class and one part to be used by students during the actual work experience period; 2) to evaluate the effectiveness of Part I and Part II of the learning package; 3) to revise Part I of the learning package, and to make recommendations for the revision of Part II; and 4) to make recommendations for the use of the learning package in the required work experience courses.

## Methods of Study

The sample consisted of fashion merchandising majors who were enrolled in the fashion work experience course in the spring of 1976. A two-part learning package was developed and evaluated. Part I of the learning package was used by 35 students during class in the spring of 1976. Eighteen students completed Part II of the learning package during the actual work experience period in the summer of 1976 .

Several methods of evaluation were used to determine the effectiveness of both parts of the learning package. To determine the effectiveness of Part $I$ of the learning package the following instruments were used: a pretest and posttest and a questionnaire concerning the students' attitudes. A paired comparison t-test was used to determine if there was a significant improvement between the pretest and posttest scores of the students. The General Clerical Test was used to measure the students' aptitude. The Pearson Product Moment Correlation Coefficient was calculated to determine the degree of relationship between the percent of gain on the pretest and posttest scores and the GCT scores. Findings from the questionnaire were analyzed by percentages. Revisions to Part I of the learning package were based on findings from the tests and questionnaires.

To determine the effectiveness of Part II of the learning package a questionnaire concerning the students' attitude was administered, and telephone interviews with students and the merchants who employed the students were conducted by the researcher. Recommendations for revisions on Part II of the learning package were made based on the findings from the questionnaires and telephone interviews.

Recommendations for the use of the learning package in the two work experience courses were made based on the findings from Part I and Part II of the learning package.

Conclusions

Based on the findings pertaining to both parts of the learning package the following conclusions can be made concerning the study:

1. There was a significant improvement ( $p<$.Ol) between the pretest and posttest scores of the students for Part I of the learning package.
2. There was no significant correlation between the percent of gain as indicated by pretest and posttest scores for Part I of the learning package and the aptitude of the students as measured by the General Clerical Test.
3. Findings from the pretest and posttest, questionnaires, and telephone interviews indicate that the learning package can be used effectively in the work experience class and during the actual work experience period.

Continued use of the learning package in the fashion work experience courses is supported by the findings from the research. Therefore, it is recommended that the work experience class be restructured to provide an opportunity for students to complete Part I of the learning package and to review the procedures for completion of Part II prior to the actual work experience period.

## Recommendations

The recommendations drawn from the study suggest areas for further research dealing with the use of learning packages in work experience courses. The recommendations for further investigation include:

1. Revise Part II of the learning package based on the recommendations from the study and replicate the study with the revised learning Part $I$ and Part II.
a. Use a larger sample with a control group using traditional materials.
b. Use published instruments to evaluate the students' attitude toward learning.
2. Conduct similar studies in order to develop learning packages based on each of the nine remaining performance goals.
3. Conduct a study to determine merchants' evaluation of the learning package used by the students during the actual work experience period.

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APPENDIXES

APPENDIX A

PERFORMANCE GOALS TO BE CONSIDERED FOR SPECIFIC OBJECTIVES FOR STUDENT WORK EXPERIENCE

## TABLE XV

PERFORMANCE GOALS TO BE CONSIDERED FOR SPECIFIC
OBJECTIVES FOR STUDENT WORK EXPERIENCE


TABLE XV (Continued)

|  | Reactions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Performance Goals Based on Responsibilities Associated With Retail Buying Functions | Student <br> Group I $N=25$ | Student <br> Group II $N=35$ | Student <br> Group III $N=19$ | Jury of Merchants $\mathrm{N}=15$ |
| *9. Maintain proper systems and procedures | x | x | x | x |
| 10. Determine merchandise available for special orders |  | $\mathbf{x}$ | x |  |
| *11. Initiate price changes and merchandise counts | x | $\mathbf{x}$ | x | $\mathbf{x}$ |
| 12. Visit stores and review merchandise |  |  | x | x |
| 13. Control disposition of prior stock |  |  |  |  |
| *14. Communicate and cooperate with management | x | x | x | x |
| 15. Provide strong leadership for subordinates |  | x | x | x |
| 16. Maintain dialogue with subordinates |  | x | x | x |
| *17. Assist salespersons on merchandise problems | $\mathbf{x}$ | x | x | x |


|  | Reactions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Performance Goals Based on | Student | Student | Student | Jury of |
| Responsibilities Associated With | Group I | Group II | Group III | Merchants |
| Retail Buying Functions | $N=25$ | $N=35$ | $\mathrm{N}=19$ | $\mathrm{N}=15$ |
| 18. Maintain performance standards of subordinates |  |  |  | x |
| 19. Provide merchandise training for others |  |  | x | x |
| *20. Perform maintenance of records duty | $\mathbf{x}$ | x | x | x |
| *21. Perform maintenance of stock duty | x | x | $\mathbf{x}$ | x |
| *22. Perform miscellaneous activities | x | x | x | x |

Reactions of 50 percent or more of each of the five groups of respondents indicated that opportunities to achieve the performance goal were feasible during student work experience. *Performance Goals agreed upon by all four groups (10).
Student Group I - students who completed work experience prior to Fall, 1971
Student Group II - students who completed work experience during Fall, 1974
Student Group III - students who completed work experience during Fall, 1975
Jury of Merchants - merchants in stores where students have had actual work experience.

APPENDIX B

LEARNING PACKAGE ON SALES PRODUCTIVITY

## LEARNING PACKAGE ON SALES PRODUCTIVITY

TABLE OF CONTENTS

```
Introduction to Learning Package
Instructions
Part I - Module l Calculating Salary
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        Module 3 Calculating Selling Cost
        Module 4 Calculating Sales Quota Goals
Part II - Module 5 Calculating Your Salary
        Module 6 Calculating Your Average Sale
        Module 7 Calculating Your Selling Cost
        Module 8 Calculating Your Sales Quota Goals
```

            INTRODUCTION
    The work experience is your first opportunity to put the theories and principles you have been studying in the classroom into practice. One way to have a successful work experience is to sell as much merchandise as possible. This maximizing or producing more sales is referred to as sales productivity.

Stores frequently evaluate the performance of each salesperson and the complete sales force on the basis of sales productivity. Analysis of sales productivity is used often in forecasting and planning sales activities.

In order to maximize your actual sales performance you must learn to measure it realistically. You will need to calculate salary and selling cost. Other measures of your sales productivity include determining your average sale and establishing your sales quota goals. By becoming aware of these factors you will be able to increase your sales productivity.

This learning package is designed to teach you how to measure your sales productivity and become aware of the factors which influence it. Included in the learning package are modules on salary, average sale, selling cost, and sales quota goals.

## INSTRUCTIONS

Each of the following modules contains a rationale which will explain the purpose of the module. Each module is designed to achieve one performance objective. Please read the rationale, the performance objective, and then complete the self-evaluation. If you score $90 \%$ or more on the self-evaluation, you may skip that particular module and go on to the next one. If you score less than $90 \%$, complete the required learning activities, practice problems, and self-evaluation. If you score $90 \%$ or less on the second self-evaluation, or if you desire extra practice, return to the optional.learning activities and repeat the process. The materials necessary for completing the optional learning activities are available in the independent learning center, room 202, HEW. Complete all of module No. 1 before proceeding to module No. 2, etc.

```
LEARNING PACKAGE ON SALES PRODUCTIVITY - PART I
```


## MODULE I: CALCULATING SALARY

## Rationale

Salary is one of the factors used in determining sales productivity. The most obvious and practical reasons for learning to calculate your salary are to make sure you understand your paycheck. This module will help you to become familiar with the different types of payment plans and will teach you how to calculate salary based on each of the plans.

Performance Objective

Upon completion of this module you will be able to calculate salary accurately for a daily, weekly, and monthly period based on each of four payment plans: 1) straight salary, 2) salary plus commission, 3) quota bonus, and 4) straight commission.

Turn to the next page and complete the Self-Evaluation. Check your answers with the Self-Evaluation Analysis.

## Self-Evaluation

Matching: Match the definitions with the terms they define. Write the letter identifying the term in the blank to the left of the definition. It is possible that some of the words do not have matching definitions.

## DEFINITIONS

1. Reductions in price made to the customer on adjustment claims in the case of goods which failed to give satisfaction.
2. Goods sold which are brought back for credit.
3. Salary before commission or bonus is added.
4. Individuals are paid a designated amount on a daily, weekly, or monthly basis.
5. Sales from which customer returns and allowances have not been deducted.
6. A percentage of the salesperson's total sales paid in addition to his/her basic weekly salary.
7. Sales from which customer returns and allowances have been deducted.
8. A percentage of total sales of merchandise set for a department or salesperson on a periodic basis; daily, weekly, monthly.

Multiple Choice: For the following questions, select the correct answer or answers from among the five cited. Note that for each question there may be more than one correct answer. Write the number (s) of your choice(s) in the blank to the left of the question.
9. Which of the following kinds of data are necessary to determine salary plus commission?
(1) net sales
(2) hourly salary
(3) returns
(4) base salary
(5) percentage of commission
10. $\qquad$ Which of the following kinds of data are necessary to determine salary plus commission on sales over a certain quota?
(1) sales quota
(2) percentage of commission
(3) net sales
(4) sales quota for other employees
(5) base salary
11. Which of the following kinds of data are necessary to determine salary based on straight commission?
(1) percentage of commission
(2) gross sales
(3) net sales
(4) base salary
(5) sales quota

True-False: Determine whether each of the following statements is true or false. If the statement is true, circle "T" following the statement. If it is false, circle the "F" and write in the blank the word or words which should be substituted for the word underlined in order to make the statement true.
12. Base salary is salary after commission.
13. Gross sales are sales from which the customer returns and allowances have been deducted.
14. Individuals on a straight salary are paid a designated amount on a daily, weekly, or monthly basis.
15. Monthly salary is weekly salary multiplied by the number of days worked per month.
$\qquad$

T F

T F

T F

## Self-Evaluation Analysis

## Matching

E 1 .
A 2 .

D 3 .
H 4 .
$\xrightarrow{C} 5$.
$\underline{\text { G }} 6$.
B 7 •
F 8.

## Multiple Choice

9. 1, 4, 5
10. 1, 2, 3, 5
11. 1, 3

## True-False

```
12. T F before
13. T F net sales
14. T F
15. T F weeks
```

If you scored 90\% (13 out of 15) on the Self-Evaluation you may proceed to the next module. If you scores less than $90 \%$, continue with the required learning activities on the next page.

## LEARNING ACTIVITIES

## Required:

A. Read the following information pertaining to calculating salary and study the definitions for each term.

## Calculating Salary

In order to calculate salary we must first learn the definitions for the following terms:

| returns | Goods sold which are brought back for cr |
| :---: | :---: |
| net sales | Sales from which customer returns and allowances have been deducted. |
| gross sales | Sales from which customer returns and allowances have not been deducted. |
| base salary | Salary before commission or bonus is added. |
| allowances | Reductions in price made to the customer on adjustment claims in the case of goods which failed to give satisfaction. |
| sales quota goal | A percentage of total sales of merchandise set for a department or salesperson on a periodic basis: daily, weekly, monthly. |
| commission | A percentage of the salesperson's total sales paid in addition to his/her basic weekly salary. |
| quota bonus | A salesperson earns a straight salary and receives a commission on sales exceeding his quota. |
| straight salary | Individuals are paid a designated amount on a daily, weekly, or monthly basis. |

B. Read pages 134-135 in Retail Business Management (Gillespie and Hecht) and study the following examples of the different types of payment plans which were discussed in the book.

## Hourly Wages

1. Daily Salary - To calculate daily salary:
a. determine hourly wage
b. determine hours worked
c. multiply hours worked each day by the hourly wage

Formula

$$
\text { hourly salary }=\$ 2.00
$$

hours worked per day $=\frac{\mathrm{x} 8}{6.00}$

$$
\$ 16.00 \text { daily salary }
$$

Example A salesperson in handbags earns an hourly wage
of $\$ 2.50$ and works 8 hours daily. We multiply
$\$ 2.50 \mathrm{by} 8$ to determine her daily salary of $\$ 20.00$.
2. Weekly Salary - To calculate weekly salary:

```
a. determine daily salary
b. determine days worked per week
c. multiply daily salary by number of days worked per week.
```

Formula daily salary $=\$ 16.00$ days worked per week $=\frac{\mathrm{x} 5}{\$ 80.00}$ weekly salary

Example A salesperson in linens earns a daily salary of $\$ 22.00$ and works 6 days weekly. We multiply $\$ 22.00$ by 6 to determine her weekly salary of $\$ 123.00$.
3. Monthly Salary - To calculate monthly salary:
a. determine weekly salary
b. determine weeks worked per month
c. multiply weekly salary by weeks worked per month

Formula
weekly salary $=\$ 80.00$
weeks worked per month $=\frac{x 4}{\$ 320.00}$ monthly salary
Example A salesperson in accessories earns a weekly salary of $\$ 90.00$ and works 4 weeks each month. We multiply $\$ 90.00$ by 4 to determine her monthly salary of $\$ 360.00$.

## Other Payment Plans

4. Salary Plus Commission - To calculate salary plus commission:
a. determine net sales by subtracting
returns from gross sales
b. multiply net sales by percent of commission
c. add commission to base salary

Formula gross sales $=\$ 300.00$
returns $\quad=\frac{-6.96}{\$ 293.04}$ net sales
salary $=\$ 50.00$ weekly $+1 \%$ commission on net sales $1 \%$ of $\$ 293.04$ (net sales) $=\$ 2.93$ commission $\$ 50.00+\$ 2.93=\$ 52.93$ salary plus commission

Example A salesperson in draperies is working on a salary plus commission plan. Her base salary is $\$ 75.00$ and she receives a commission of $1 \%$ on net sales. During the first week in March her gross sales total \$590.00 and her returns for the same week total \$10.75. We must first subtract $\$ 10.75$ from $\$ 590.00$ to determine her net sales of \$579.25. We then multiply \$579.25 by $1 \%$ to determine her commission of $\$ 5.79$. Next we add her $\$ 5.79$ commission to her salary of $\$ 75.00$ to determine her salary plus commission which equals $\$ 80.79$.
5. Quota Bonus To calculate salary when a commission is paid on all sales over a certain quota:
a. determine the amount over quota b. determine the amount of commission c. add commission to weekly salary

Formula salary $=\$ 50.00$ weekly plus $3 \%$ commission
on sales over $\$ 600.00$
net sales $=\$ 80.00$ for one week.
$\$ 800-\$ 600=\$ 200$ amount of sales over quota $3 \%$ of $\$ 200=\$ 6.00$ amount of commission $\$ 50.00+\$ 6.00=\$ 56.00$ total weekly salary

> Example A salesperson in the bridal shop earns a weekly salary of $\$ 80.00$ plus $5 \%$ commission on sales over $\$ 750.00$ quota. Her net sales during the second week in February are $\$ 900.00$. We must first subtract $\$ 750.00$ from $\$ 900.00$ to determine the amount over quota which equals $\$ 150.00$. Next we multiply $\$ 150.00$ by $5 \%$ to determine the amount of commission which is $\$ 7.50$. We then add the $\$ 7.50$ commission to her $\$ 80.00$ salary to determine her salary plus quota bonus of $\$ 87.50$.
6. Straight Commission - To calculate straight commission:
a. determine net sales
b. determine amount of commission c. multiply net sales by amount of commission

Formula
41/2\% commission

| $\$ 4,500.00$ net sales per week |
| :--- |
| $4.5 \%$ |
| commission |

$\$ 202.50$ salary plus commission

Example A salesperson in mens suits earned a straight commission of $5 \%$ on his net sales. The week before Easter his net sales were $\$ 5,500.00$. We multiply $\$ 5,500.00$ by $5 \%$ to determine his salary of $\$ 275.00$.
C. Work the practice problems below in the space provided. When you have completed all the problems turn to the answer sheet on page 90 and follow the instructions on that page.

PRACTICE PROBLEMS

1. A salesperson in a specialty store receives a $\$ 2.50$ hourly wage. He works 40 hours a week. What is his monthly salary if he works 4 weeks a month?
2. A part-time salesperson receives a weekly salary of $\$ 56.00$. He works 3 days a week for 8 hours. What is his hourly salary?
3. A salesperson in the furniture department receives a $5 \%$ commission on net sales. His net sales for one week were $\$ 5,000.00$. What would his weekly salary be?
4. A salesperson receives a $4 \%$ commission on sales over a $\$ 500.00$ quota weekly. Her base salary is $\$ 50.00$ and her net sales were $\$ 700.00$ for one week. What were her total earnings for the week?
5. A salesperson receives a base salary of $\$ 60.00$ a week plus a $2 \%$ commission on net sales. Net sales for that week were $\$ 300.00$. What is her weekly salary?

Turn to page 90 and record your answers.

Matching: Match the definitions with the terms they define. Write the letter identifying the term in the blank to the left of the definition. It is possible that some of the words do not have matching definitions.

Definitions
Terms

1. Reductions in price made to the customer on adjustment claims in the case of goods which failed to give satisfaction.
2. Goods sold which are brought back for credit.
3. Salary before commission or bonus is added.
4. Individuals are paid a designated amount on a daily, weekly, or monthly basis.
5. Sales from which customer returns and allowances have not been deducted.
6. A percentage of the salesperson's total weekly salary.
7. Sales from which customer returns and allowances have been deducted.
8. A percentage of total sales of merchandise set for a department or salesperson on a periodic basis: daily, weekly, monthly.

Multiple Choice: For the following questions, select the correct answer or answers from among the five cited. Note that for each question there may be more than one correct answer. White the number (s) of your choice (s) in the blank to the left of the question.
9. $\qquad$ Which of the following kinds of data are necessary to determine salary plus commission?
(1) net sales
(2) hourly salary
(3) returns
(4) base salary
(5) percentage of commission
10.

Which of the following kinds of data are necessary to determine salary plus commission on sales over a certain quota?
(1) sales quota
(2) percentage of commission
(3) net sales
(4) sales quota for other employees
(5) base salary
11. $\qquad$ Which of the following kinds of data are necessary to determine salary based on straight commission?
(1) percentage of commission
(2) gross sales
(3) net sales
(4) base salary
(5) sales quota

True-False: Determine whether each of the following statements is true or false. If the statement is true, circle "T" following the statement. If it is false, circle the "F" and write in the blank the word or words which should be substituted for the word underlined in order to make the statement true.
12. Base salary is salary after commission.
13. Gross sales are sales from which the customer returns and allowances have been deducted.
14. Individuals on a straight salary are paid a designated amount on a daily, weekly, or monthly basis.
15. Monthly salary is weekly salary multiplied

T F

T F
F
r F

T F $\qquad$ by the number of days worked per month.

## SELF-EVALUATION ANALYSIS

> Matching
> E 1.
> $\xrightarrow{A}{ }^{2}$
> D 3 .
> $\xrightarrow{H} 4$.
> $\xrightarrow{C} 5$.
> G 6 .
> B 7 .
> F 8.

## Mu1tiple Choice

9. $1,4,5$
10. 1, 2, 3, 5
11. 1,3

True-False

| 12. | T | F | before |
| :--- | :--- | :--- | :--- |
| 13. | T | F | net sales |
| 14. | T | F |  |
| 15. | T | F | weeks |

If you scored $90 \%$ ( 13 out of 15) on the Self-Evaluation you may proceed to the next module. If you scored less than $90 \%$ continue with the optional learning activities on the next page.

## LEARNING ACTIVITIES

## Optional:

The materials necessary for the completion of these learning activities can be found in the independent learning center, HEW 202. Optional learning activities should be completed before the posttest on April 29.

1. Read pp. 523-525 in Fundamentals of Selling (Wingate and Nolan) and answer the following questions from your reading.

Define the following types of payment plans.
time wages
straight commission
salary and commission
quota plan
2. Read pp. 172-173 in Retail Merchandising (Wingate and Sampson) and answer the following questions from your reading.

Give your own examples of how to calculate salary using the following types of payment plans.
straight salary
salary and commission
quota plan
straight commission

Repeat the Self-Evaluation and Self-Evaluation Analysis. If you score less than $90 \%$, identify your errors and re-work the problems you missed.

Separate this sheet from the module. Record all your answers to the practice problems in the space provided. After you have recorded your answers turn to the following page and check your answers. Circle any errors you made and re-work the problems you missed in the space provided on pages 84 and 85. After you re-work the problems you missed, turn this sheet in.

YOUR ANSWERS:

1. $\qquad$
2. $\qquad$
3. 
4. $\qquad$
5. 

## ANSWER SHEET

1. \$ 2.50 hourly wage

40 hours worked per week $\$ 100.00$
2. $\$ 56.40$ monthly salary $\div 3$ days worked $=\$ 18.80$ daily salary $\$ 18.80$ daily salary $\div 8$ hours worked $=\$ 2.35$ hourly salary
3. \$5,000 net sales
$5 \%$ commission
\$250.00 weekly salary
4. $\$ 700.00$ net sales 500.00 sales quota $\$ 200.00$ amount over quota

$4 \%$ of $\$ 200.00=\$ 8.00$ commission<br>50.00 salary<br>\$58.00 salary

5. $\begin{array}{r}\$ 300.00 \text { net sales } \\ \$ 6.00 \text { commission } \\ \$ 6 \text { comission }\end{array}$
6. $\begin{array}{r}\$ 300.00 \text { net sales } \\ \$ 6.00 \text { commission } \\ \$ 6 \text { comission }\end{array}$
7. $\begin{array}{r}\$ 300.00 \text { net sales } \\ \$ 6.00 \text { commission } \\ \$ 6 \text { comission }\end{array}$
\$100.00 weekly salary
$\frac{4}{4}$ weeks worked
\$60.00 salary
6.00 commission
$\$ 66.00$ total salary

Turn to pages 93 and 94 and complete the Self-Evaluation and Self-Evaluation Analysis.

LEARNING PACKAGE ON SALES PRODUCTIVITY-PART II

## MODULE 5: CALCULATING YOUR SALARY

## Rationale

You are now in your first week on the job. You and your employer have agreed upon a salary based on one of the payment plans you studied in Module No. l. This module will help you apply what you have learned and calculate your own salary on a periodic basis.

## Performance Objective

Upon completion of this module you will be able to calculate your daily, weekly, and monthly salary based upon the appropriate payment plan.

Turn to the next page and complete the Self-Evaluation. Check your answers with the Self-Evaluation Analysis.

## SELF-EVALUATION

Directions: The following are hypothetical situations which might occur in a store or department. Complete the calculations necessary to determine the appropriate answers in the space provided.

1. A salesperson in a department store receives a $\$ 2.75$ hourly wage. She works 38 hours a week. What is her monthly salary?
2. A salesperson in the men's suits department receives a $2 \%$ commission on net sales. His net sales for one week were $\$ 3,500.00$. What would his commission be for the week?
3. A salesperson receives a base salary of $\$ 85.00$ a week plus a $2 \%$ commission on net sales. Her net sales for one week were $\$ 900.00$. What is her weekly salary plus commission?
4. A salesperson receives a base salary of $\$ 75.00$ a week plus a $1 \frac{1}{2} \%$ commission on sales over a $\$ 600.00$ weekly quota. Her net sales for one week were $\$ 700.00$. What would her weekly salary be?
5. Calculate your salary for the following periods of time:
daily salary
weekly salary $\qquad$
monthly salary
6. $\$ 2.75$ hourly wage

38 hours per week
$\$ 104.50$ salary per week
$\$ 104.50$ salary per week
$\frac{4}{4}$ weeks per month
$\$ 418.00$ salary per month
2. $\$ 3,500.00$ net sales
$2 \%$ commission
\$ 70.00 commission for one week
3. $\$ 900.00$ net sales

2\% commission
\$18.00 commission for the week
4. $\$ 700.00$ net sales 600.00 weekly quota $\$ 100.00$ amount over quota
$\$ 100.00$ amount over quota 11/2\% commission
$\$ 1.50$ amount of commission

If you scored $90 \%$ ( 4 out of 5) on the Self-Evaluation you may proceed to the next module. If you scored less than $90 \%$, continue with the required learning activities on the next page.

LEARNING ACTIVITIES

Required:
A. Keep daily records in order to calculate your sales productivity. Include: date, dept., weather, total sales, errors and returns, total transactions, hourly wages, and hours worked. Use the form on page 5 and each day complete the data required in the starred(*) columns.
B. Review the Required Learning Activities in Module No. 1 on Calculating Salary and:

1. Identify your type of payment plan by circling the appropriate plan in each column.

HOURLY
OTHER TYPES OF PAYMENT PLANS

Daily
Weekly
Salary plus commission
Straight commission
Monthly
Straight salary
Quota bonus
2. Indicate the number of hours you work per day $\qquad$ , per week $\qquad$ , per month $\qquad$
3. Determine your hourly wage $\qquad$
4. Assuming you are working full time (40 hour week), calculate your own daily, weekly, and monthly salary based on your hourly wage.
a. Daily salary $\qquad$
b. Weekly salary $\qquad$
c. Monthly salary


Bring this completed module with you to the second week of the Fashion Work Experience seminar.

EVALUATION OF SALES PRODUCTIVITY (1st Week)

| $*$ <br> Date <br> Weather | $*$ <br> Sales <br> Quota <br> Goals | $*$ <br> Total <br> Sales | $*$ <br> Total <br> Transactions | $*$ <br> Average <br> Sale | $*$ <br> Selling <br> Cost | $*$ <br> Hourly <br> Wage | Hours <br> Worked | Errors and <br> Returns |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |

## SELF-EVALUATION

Directions: The following are hypothetical situations which might occur in a store or department. Complete the calculations necessary to determine the appropriate answers in the space provided.

1. A salesperson in a department store receives a $\$ 2.75$ hourly wage. She works 38 hours a week. What is her monthly salary?
2. A salesperson in the men's suits department receives a $2 \%$ commission on net sales. His net sales for one week were $\$ 3,500$. What would his commission be for the week?
3. A salesperson receives a base salary of $\$ 85.00$ a week plus a $2 \%$ commission on net sales. Her net sales for one week were \$900.00. What is her weekly salary plus commission?
4. A salesperson receives a base salary of $\$ 75.00$ weekly plus a $11 / 2 \%$ commission on net sales. Her net sales for one week were $\$ 700.00$. What would her salary be?
5. Calculate your salary for the following periods of time:

Daily salary

Weekly salary
Monthly salary $\qquad$

## SELF-EVALUATION ANALYSIS

1. 

$\$ 2.75$ hourly wage
38 hours per week $\$ 104.50$ salary per week
2. $\$ 3,500.00$ net sales

2\% commission
$\$ 70.00$ commission for the week
3. $\$ 900.00$ net sales
$2 \%$ commission
\$ 18.00 commission for the week
4. $\$ 700.00$ net sales
600.00 weekly quota
$\$ 100.00$ amount over quota
\$104.50 salary per week
4 weeks per month
$\$ 418.00$ salary per month
$\$ 75.00$ salary $+\$ 1.50$ commission $=\$ 76.50$ total salary

If you scored 90\% (4 out of 5) on the Self-Evaluation you may proceed to the next module. If you scored less than $90 \%$, identify your errors and re-work the problems.

APPENDIX C

DATA COMPILATION CHART

## DATA COMPILATION CHART

| Res. | Learning Package-Part I |  | GCT Percentile Scores* |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pretest Scores | Posttest Scores | I | II | III | Total |
| 1 | 35 | 42 | 45 | 75 | 25 | 40 |
| 2 | 19 | 23 | 25 | 40 | 15 | 20 |
| 3 | 23 | 41 | 90 | 70 | 50 | 75 |
| 4 | 20 | 35 | 90 | 30 | 25 | 50 |
| 5 | 26 | 41 | 10 | 15 | 60 | 35 |
| 6 | 25 | 32 | 25 | 50 | 50 | 40 |
| 7 | 23 | 32 | 40 | 20 | 30 | 30 |
| 8 | 33 | 40 | 85 | 85 | 70 | 80 |
| 9 | 26 | 44 | 70 | 90 | 50 | 70 |
| 10 | 28 | 43 | 20 | 70 | 70 | 55 |
| 11 | 25 | 39 | 60 | 80 | 85 | 80 |
| 12 | 30 | 38 | 45 | 90 | 97 | 90 |
| 13 | 23 | 37 | 45 | 30 | 30 | 30 |
| 14 | 21 | 38 | 45 | 90 | 60 | 65 |
| 15 | 35 | 41 | 45 | 60 | 10 | 25 |
| 16 | 26 | 39 | 30 | 45 | 80 | 60 |
| 17 | 30 | 41 | 15 | 25 | 30 | 20 |
| 18 | 32 | 39 | 30 | 75 | 45 | 50 |
| 19 | 33 | 39 | 15 | 15 | 55 | 25 |
| 20 | 30 | 42 | 35 | 50 | 75 | 55 |
| 21 | 27 | 38 | 30 | 55 | 80 | 65 |
| 22 | 26 | 44 | 20 | 35 | 35 | 25 |
| 23 | 26 | 42 | 30 | 10 | 30 | 20 |
| 24 | 29 | 38 | 60 | 80 | 80 | 75 |
| 25 | 27 | 42 | 40 | 80 | 40 | 50 |
| 26 | 22 | 39 | 15 | 40 | 30 | 20 |
| 27 | 24 | 38 | 45 | 65 | 55 | 55 |
| 28 | 20 | 29 | 25 | 42 | 25 | 25 |
| 29 | 14 | 35 | 20 | 30 | 3 | 5 |
| 30 | 34 | 42 | 20 | 35 | 60 | 40 |
| 31 | 21 | 42 | 30 | 50 | 75 | 55 |
| 32 | 34 | 40 | 45 | 50 | 85 | 70 |
| 33 | 32 | 43 | 25 | 80 | 90 | 75 |
| 34 | 36 | 42 | 65 | 55 | 75 | 65 |
| 35 | 31 | 39 | 65 | 70 | 75 | 70 |

CODE :
Res $=$ Respondent
GCT = General Clerical Test
I = subscore I - clerical
II = subscore II- numeral
III = subscore III - verbal

* Norms based on Business and Industry

APPENDIX D

PRETEST AND POSTTEST FOR PART I

## PRETEST AND POSTTEST FOR PART I

Matching: Match the definitions with the terms they define. Write the letter identifying the term in the blank to the left of the definition. It is possible that some of the words do not have matching definitions.

## Definitions

- Dividing a salesperson's earning by his net sales.

2. Goods sold which are brought back for credit.
3. A salesperson's net sales divided by his/her total number of transactions.
4. Sales from which customer returns and allowances have been deducted.
5. Salary before commission or bonus is added.
6. A percentage of total sales or merchandise set for a department or salesperson on a periodic basis; daily, weekly, monthly.
7. Reductions in price made to the customer on adjustment claims in the case of goods which failed to give satisfaction.
8. Sales from which customer returns and allowances have not been deducted.
9. The number of sales completed during a period whether cash, COD, charge, etc.
10. Individuals are paid a designated amount on a daily, weekly, or monthly basis.
11. A percentage of the salesperson's total
sales paid in addition to his/her basic
12. A percentage of the salesperson's total
sales paid in addition to his/her basic weekly salary.
13. A figure which stores establish as an average selling cost for use in budgeting and planning and evaluating salespeople, usually between $5 \%$ and $7 \%$.

A gross sales $B$ average sale C transactions D allowances E sales quota goal
F net sales
G straight salary
H base salary
I selling cost
$J$ returns
K commission
L standard selling cost
M total sales
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Multiple Choice: For the following questions, select the correct answer or answers from among the five cited. Note that for each question there may be more than one correct answer. Write the number (s) of your choice(s) in the blank to the left of the question.
13. $\qquad$ Which of the following kinds of data are necessary to determine net sales?
(1) transactions
(2) returns
(3) total sales
(4) allowances
(5) total salary
14. $\qquad$ Which of the following kinds of data are necessary to determine average sales?
(1) number of transactions
(2) total salary
(3) net sales
(4) gross sales
(5) straight salary
15. Which of the following factors might a department manager consider when setting a sales quota goal for the department?
(1) number of salespeople in the department
(2) population in the trading area
(3) volume of retail trade
(4) number of outlets carrying the same type of goods
(5) income of families in the trade area
16. $\qquad$ Which of the following factors might you consider when setting your personal sales quota goal?
(1) special sales promotions planned during the sales period
(2) other non-sales duties
(3) population in the trading area
(4) number of other salespeople in the department
(5) income of the families in the trade area
17. Which of the following kinds of data are necessary to determine selling cost?
(1) number of transactions
(2) salary
(3) net sales
(4) gross sales
(5) average sales
18. $\qquad$ In which of the following instances does management use selling cost percentage?
(1) setting sales quota goals
(2) budgeting
(3) planning
(4) evaluating salespeople
(5) commissions
19. $\qquad$ Which of the following kinds of data is necessary to determine salary plus commission?
(1) net sales
(2) hourly salary
(3) returns
(4) base salary
(5) percentage of commission
20. $\qquad$ Which of the following kinds of data are necessary to determine salary plus commission on sales over a certain quota?
(1) sales quota
(2) percentage of commission
(3) net sales
(4) sales quota for other employees
(5) base salary
21.

Which of the following kinds of data are necessary to determine salary based on straight commission?
(1) percentage of commission
(2) gross sales
(3) net sales
(4) base sales
(5) sales quota

True-False: Determine whether each of the following statements is true or false. If the statement is true, cicle "T" following the statement. If it is false, circle "F" and write in the blank the word or words which should be substituted for the word underlined in order to make the statement true.
22. Dividing a salesperson's salary by his T F gross sales gives his selling cost.
23. Selling cost is represented by percentage. $T$ F
24. If a salesperson's selling cost is considerably lower than the standard selling cost, it decreases the store's profits and productivity.
25. Stores often establish a standard selling cost for use in budgeting and planning.
26. Transactions are individual sales.
27. A salesperson's gross sales divided by his/her total number of transactions determines average sale.
28. Sales quota goal is a percentage of the total sales of merchandise set for a department of salesperson.
29. Standard selling cost is a figure stores establish for use in budgeting and planning and hiring salespeople.
30. Base salary is salary after commission.
31. Gross sales are sales from which the customer returns and allowances have been deducted.
32. Individuals on a straight salary are paid a designated amount on a daily, weekly, or monthly basis.

Problems: The following are hypothetical situations which might occur in a store or department. Complete the calculations necessary to determine the appropriate answers in the space provided.
33. A salesperson in the blouse department earns a salary of $\$ 70.00$ weekly. Her net sales for the week are $\$ 850.00$. What is her selling cost percentage?
34. A salesperson in the bridal shop receives a straight commission of $2 \%$ on net sales. Her net sales for one week were $\$ 25,000.00$. What is her selling cost percentage?
35. A salesperson's net sales for one day were $\$ 600.00$. The total number of transactions he completed was 55 . 'What was his average sale for the day?
36. A salesperson in the furniture department receives a $11 / 2 \%$ commission on net sales. His net sales for one week were $\$ 4,000.00$. What would his commission be for the week?
37. A salesperson in the sportswear department earns a salary of $\$ 80.00$ weekly. The standard selling cost for the department is 4\%. What is her sales quota goal?

Pictorial: The terms listed below represent numbers or figures which are related to improving your sales productivity. Improved sales productivity is a result of an increase in some figures and a decrease in others. Place this symbol $\uparrow$ beside the terms which when increased would improve sales productivity, and this symbol $\downarrow$ beside those which when decreased would improve sales productivity.

| 38. | net sales |
| :---: | :---: |
| 39. | gross sales |
| 40. | selling cost |
| 41 | average sale |
| 42 | returns |
| 43. | transactions |
| 44. | allowances |

APPENDIX E

SPECIFICATIONS FOR PRETEST AND POSTTEST OF LEARNING PACKAGE ON SALES PRODUCTIVITY

SPECIFICATIONS FOR PRETEST AND POSTTEST OF LEARNING PACKAGE ON SALES PRODUCTIVITY

| Subject Matter <br> Objectives | Knowledge <br> C.D. | Comprehension <br> C.D. | Behavioral Objectives <br> Application <br> C.D. | Analysis <br> C.D. | Synthesis <br> C.D. | Evaluation <br> C.D. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Calculating <br> Salary | $5,8,10,11$, <br> $19,20,21,30$, <br> 31,32 | 40 |  |  |  |  |
| Calculating <br> Average Sale | $3,4,9,13,14$, <br> 26,27 | $39,42,44$ |  |  |  |  |
| Calculating <br> Selling Cost | $1,2,7,17,18, ~$ <br> $22,23,: 24$ | $41,43,45$ | 35 |  |  |  |

C.D. = Cognative Domain

Numbers represent test questions

## APPENDIX F

QUESTIONNAIRE CONCERNING LEARNING ACTIVITY
PACKAGE - PART I, MODULES 1-4

QUESTIONNAIRE CONCERNING LEARNING ACTIVITY
PACKAGE - PART I, MODULES 1-4

Part A. (Please circle the most appropriate answer on questions 1-9).

1. The most desirable feature of the modules was:
a. they didn't go too fast
b. could progress at my own speed
2. The most undesirable feature of the modules was:
a. too short
b. too long
3. The content of the modules was:
a. adequate on all learning activities
b. inadequate on all learning activities
c. adequate on some and inadequate on others
4. The directions for the modules were:
a. easy to understand
b. difficult to understand
5. The modules were:
a. too easy
b. too difficult
c. appropriate
6. The optional learning activities were:
a. helpful
b. unnecessary
7. The self-evaluation analysis:
a. often helped to find the correct answer
b. were a waste of time
8. If you had a choice as to how the course material would be presented, you would choose:
a. a lecture
b. a textbook
c. a learning package
d. other
9. Which type of self-evaluation questions did you prefer:
a. multiple choice
b. computation problems and applications
c. short answer
d. matching

Part B. (Please check the box which indicates how you feel about statements 1-4).

Strongly agree: agree completely with statement
Agree: agree somewhat with the statement
Neutral: can neither agree or disagree with statement
Disagree: disagree somewhat with the statement

Strongly disagree: disagree completely with statement

1. I personally enjoyed using the learning package.
2. While using the learning package, I felt relaxed and at ease.
3. I felt the learning package was a valuable aid to learning.
4. My attitude toward the learning package was completely favorable.


If you have any suggestions for improving the learning package, please write comments below:

APPENDIX G

QUESTIONNAIRE ON PART II OF LEARNING PACKAGE ON SALES PRODUCTIVITY

QUESTIONNAIRE ON PART II OF LEARNING PACKAGE
ON SALES PRODUCTIVITY

Instructions: Complete the following information and return this questionnaire immediately following the fourth week of your work experience. If you are working part-time, return the questionnaire after the completion of 160 hours. Return the questionnaire to:

Kathryn M. Greenwood, Coordinator
Fashion Merchandising Program
Oklahoma State University
Stillwater, Oklahoma 74074

For the following questions, place an $x$ in the appropriate box for each module.

1. The instructions for each module were:
a. adequate
b. inadequate
c. adequate in some and inadequate in others
2. The Self-Evaluations in each module were:
a. helpful in finding the correct answer
b. rarely helpful in finding the correct answer
c. a waste of time
3. The Learning Activities in each module were:
a. helpful in calculating my own sales productivity
b. rarely helpful in calculating my own productivity
c. a waste of time

MODULES


MODULES
4. The degree of difficulty of each module was:
a. too difficult
b. too easy
c. appropriate
5. The Evaluation of Sales Productivity Form in each module was:
a. helpful and complete
b. helpful but incomplete
c. not necessary


Circle the appropriate answer for the following questions.
6. The first four modules were:
a. helpful in completing the last four modules
b. not helpful in completing the last four modules
c. were helpful on some modules and not on others
7. Becoming more aware of the factors which influence my sales productivity has:
a. caused my sales productivity to increase
b. caused my sales productivity to decrease
c. made no difference
8. I completed most of the written information on the modules:
a. at home
b. in the store during working hours
c. other
9. Refer to the data you have completed in your productivity records and record the information on the following form before answering questions 10 , 11 , and 12.

|  | 1st Week | 2nd Week | 3rd Week | 4 th Week |
| :---: | :---: | :---: | :---: | :---: |
| total Sales |  |  |  |  |
| average sale |  |  |  |  |
| SELLING COST |  |  |  |  |

10. During the four weeks on the job, my average sale has:
a. increased
b. decreased
c. stayed about the same
11. During the four weeks on the job, my selling cost has:
a. increased
b. decreased
c. stayed about the same
12. During the four weeks on the job, I have:
a. usually reached my sales quota goal
b. rarely reached my sales quota goal
c. sometimes reached my sales quota goal

If you have any additional comments or suggestions concerning the Learning Package, please list them below:

Thank you for participating.

APPENDIX H

FIRST STUDENT INTERVIEW GUIDE

## FIRST STUDENT INTERVIEW GUIDE

1. Did you find that modules $5-8$ were completely self-instructional? If not, what kind of questions did you have?
2. Did you like the format (Behavioral Objectives, Self-Evaluation, Learning Activities, etc.) of the modules?
3. What information (data) would add to the Evaluation of Sales Productivity Form?
4. Which module area (avg. sale, salary, selling cost, sales quota goal) was most helpful to you?
5. If you could change something about the module what would you change?
6. Has becoming more aware of your sales productivity caused it to increase?

APPENDIX I

SECOND STUDENT INTERVIEW GUIDE

## SECOND STUDENT INTERVIEW GUIDE

1. Did you refer to the first four modules for reference while using the last four?
2. Do you have the two parts of the learning package together right now?
3. Do you think it would be better to receive both parts of the learning package at the same time?
4. Would you have liked to have known more about Part II while you were doing Part I?
5. Was it better to work Part $I$ in class or would you rather work both parts on your own?

APPENDIX J

MERCHANT INTERVIEW GUIDE

## MERCHANT INTERVIEW GUIDE

1. Does this student seem better prepared for the job than other students who have worked for you recently?
2. Do you approve of the fact that the student wants to learn all she can about the business or does she take up too much of your time?
3. Have you seen any of the materials that the student has pertaining to work experience requirements at OSU? What is your reaction?
4. Are you aware that she is keeping sales productivity records? What is your reaction to this?
5. Has the student asked questions that you feel will help her learn more about retailing?
6. Has she asked questions which you feel are not of her concern?
7. Do you feel the student is neglecting any of her sales duties to work on class assignments?
8. Do you have any suggestions as to kinds of learning activities the student should observe?

APPENDIX K

STUDENT PRETEST AND POSTTEST SCORES

STUDENT PRETEST AND POSTTEST SCORES
$\mathrm{N}=35$

| Student | Pretest | Posttest | Difference | Percent Gain |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 35 | 42 | 7 | 20 |
| 2 | 19 | 23 | 4 | 21 |
| 3 | 23 | 41 | 18 | 78 |
| 4 | 20 | 35 | 15 | 75 |
| 5 | 26 | 41 | 15 | 57 |
| 6 | 25 | 32 | 7 | 28 |
| 7 | 23 | 32 | 9 | 39 |
| 8 | 33 | 40 | 7 | 21 |
| 9 | 26 | 44 | 18 | 69 |
| 10 | 28 | 43 | 15 | 53 |
| 11 | 25 | 39 | 14 | 56 |
| 12 | 30 | 38 | 8 | 26 |
| 13 | 23 | 37 | 14 | 60 |
| 14 | 21 | 38 | 17 | 80 |
| 15 | 35 | 41 | 6 | 17 |
| 16 | 26 | 39 | 13 | 50 |
| 17 | 30 | 41 | 11 | 36 |
| 18 | 32 | 39 | 7 | 21 |
| 19 | 33 | 39 | 6 | 18 |
| 20 | 30 | 42 | 12 | 40 |
| 21 | 27 | 38 | 11 | 40 |
| 22 | 26 | 44 | 18 | 69 |
| 23 | 26 | 42 | 16 | 61 |
| 24 | 29 | 38 | 9 | 31 |
| 25 | 27 | 42 | 15 | 55 |
| 26 | 22 | 39 | 17 | 77 |

STUDENT PRETEST AND POSTTEST SCORES (Continued)

| Student | Pretest | Posttest | Difference | Percent Gain |
| :---: | :---: | :---: | :---: | :---: |
| 27 | 24 | 38 | 14 | 58 |
| 28 | 20 | 29 | 9 | 45 |
| 29 | 14 | 35 | 21 | 100 |
| 30 | 34 | 42 | 8 | 23 |
| 31 | 21 | 42 | 21 | 100 |
| 32 | 34 | 40 | 6 | 17 |
| 33 | 32 | 43 | 11 | 34 |
| 34 | 36 | 32 | 8 | 16 |
| 35 | 31 |  |  | 25 |

APPENDIX L

NUMBER AND PERCENT OF CORRECT RESPONSES ON PRETEST AND POSTTEST

## NUMBER AND PERCENT OF CORRECT RESPONSES <br> ON PRETEST AND POSTTEST <br> $\mathrm{N}=44$

| Pretest |  |  | Posttest |  |
| :---: | :---: | :---: | :---: | :---: |
| Item <br> Number | Number <br> Correct <br> Responses | Percent of Correct Responses | Number <br> Correct <br> Responses | Percent of Correct Responses |
| 1 | 21 | 47.7 | 38 | 86.3 |
| 2 | 44 | 100.0 | 43 | 97.7 |
| 3 | 32 | 72.7 | 43 | 97.7 |
| 4 | 31 | 70.4 | 44 | 100.0 |
| 5 | 40 | 90.9 | 41 | 93.1 |
| 6 | 37 | 84.0 | 40 | 90.1 |
| 7 | 39 | 88.6 | 43 | 97.7 |
| 8 | 26 | 59.0 | 43 | 97.7 |
| 9 | 9 | 20.4 | 29 | 65.9 |
| 10 | 32 | 72.7 | 42 | 95.4 |
| 11 | 43 | $97 \cdot 7$ | 44 | 100.0 |
| 12 | 37 | 84.0 | 41 | 93.1 |
| 13 | 10 | 22.7 | 28 | 63.6 |
| 14 | 18 | 40.9 | 37 | 84.0 |
| 15 | 19 | 20.4 | 38 | 86.3 |
| 16 | 8 | 18.1 | 38 | 86.3 |
| 17 | 16 | 36.3 | 36 | 81.8 |
| 18 | 14 | 38.8 | 36 | 81.8 |
| 19 | 13 | 29.5 | 26 | 59.0 |
| 20 | 23 | 52.2 | 30 | 68.1 |
| 21 | 12 | 27.2 | 39 | 88.6 |
| 22 | 26 | 59.0 | 43 | 97.7 |
| 23 | 43 | 97.7 | 44 | 100.0 |
| 24 | 13 | 29.5 | 39 | 88.6 |
| 25 | 41 | 93.1 | 42 | 95.4 |
| 26 | 38 | 86.3 | 42 | 95.4 |

NUMBER AND PERCENT OF CORRECT RESPONSES
ON PRETEST AND POSTTEST (Continued)

| Pretest |  |  | Posttest |  |
| :---: | :---: | :---: | :---: | :---: |
| Item <br> Number | Number <br> Correct Responses | Percent of <br> Correct <br> Responses | Number <br> Correct <br> Responses | Percent of Correct Responses |
| 27 | 24 | 54.5 | 42 | 95.4 |
| 28 | 40 | 90.9 | 43 | 97.7 |
| 29 | 20 | 45.4 | 44 | 100.0 |
| 30 | 42 | 95.4 | 44 | 100.0 |
| 31 | 32 | 72.7 | 43 | 97.7 |
| 32 | 44 | 100.0 | 43 | 97.7 |
| 33 | 17 | 38.6 | 40 | 90.9 |
| 34 | 15 | 34.0 | 36 | 81.8 |
| 35 | 32 | 72.7 | 42 | 95.4 |
| 36 | 37 | 84.0 | 36 | 81.1 |
| 37 | 24 | 54.5 | 32 | 72.7 |
| 38 | 44 | 100.0 | 44 | 100.0 |
| 39 | 43 | 97.7 | 44 | 100.0 |
| 40 | 30 | 68.1 | 36 | 81.1 |
| 41 | 41 | 93.1 | 43 | 97.7 |
| 42 | 44 | 100.0 | 44 | 100.0 |
| 43 | 43 | 97.7 | 44 | 100.0 |
| 44 | 42 | 95.4 | 44 | 100.0 |

## APPENDIX M

CORRELATIONS BETWEEN STUDENTS' PRETEST AND POSTTEST SCORES AND GCT SCORES

```
CORRELATIONS BETWEEN STUDENTS' PRETEST AND
    POSTTEST SCORES AND GCT SCORES
    N=35
```

| Variable | Pretest | Posttest | GCT1 | GCT2 | GCT3 | GCTT \%Gain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pretest |  |  |  |  |  |  |
| Posttest | . $5387 *$ |  |  |  |  |  |
| GCT1 | . 0824 | .0787 |  |  |  |  |
| GCT2 | . 2508 | . 2319 | . $4817^{*}$ |  |  |  |
| GCT 3 | .4096* | .3673* | . 1643 | .4573* |  |  |
| GCTT | . 3305 | . 3114 | .6086* | . $7642^{*}$ | .8353* |  |
| \%Gain | . 7811 * | . 0435 | . 0439 | . 1547 | . 2886 | .2313 |

*Significant at the . 05 level.

## APPENDIX N

STUDENTS' SALES PRODUCTIVITY RECORDS FROM THE FIRST WEEK AND THE FOURTH WEEK OF THE ACTUAL WORK EXPERIENCE PERIOD

STUDENTS' SALES PRODUCTIVITY RECORDS FROM THE FIRST WEEK AND THE FOURTH WEEK OF THE ACTUAL WORK EXPERIENCE PERIOD
$\mathrm{N}=18$

| Student <br> Number | 1st week | Sales (\$) <br> 4 th week | Aver <br> 1st week | (\$) <br> 4th week | Selling Cost lst week | (\%) <br> 4th week |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| O1 | 843.39 | 1,529.83 | 13.16 | 13.71 | 4 | 4 |
| 02 | 1,594.46 | 1,286.11 | 15.69 | 19.11 | 7 | 6 |
| 03 | 659.71 | 840.89 | 6.34 | 13.34 | 11 | 7 |
| 04 | $947 \cdot 95$ | 1,051.67 | 22.57 | 19.21 | 9 | 8 |
| 05 | 421.43 | 482.31 | 89.06 | 92.28 | 14 | 14 |
| 06 | 588.00 | 1,150.00 | 5.20 | 16.17 | 14 | 7 |
| 07 | 349.39 | 927.83 | 33.66 | 77.49 | 9 | 8 |
| 08 | 686.53 | 1,403.21 | 20.16 | 20.72 | 5 | 5 |
| 09 | 1,462.00 | 899.00 | 18.50 | 35.96 | 3 | 3 |
| 10 | 1,120.00 | 1,139.00 | 90.00 | 61.00 | 5 | 4 |
| 11 | 1,950.00 | 1,405.00 | 33.90 | 46.98 | 6 | 7 |
| 12 | 500.63 | 1,497.64 | 4.47 | 6.80 | 14 | 7 |

STUDENTS' SALES PRODUCTIVITY RECORDS FROM THE FIRST WEEK AND THE FOURTH WEEK OF THE ACTUAL WORK EXPERIENCE PERIOD
(Continued)

| Student <br> Number | Total Sales (\$) |  | Average Sale (\$) |  | Selling Cost (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st week | 4 th week |  | 4 th week |  | 4 th week |
| 13 | 443.00 | 457.00 | 29.54 | 22.85 | 5 | 7 |
| 14 | 958.35 | 326.44 | 11.00 | 24.50 | 6 | 9 |
| 15 | 1,092.64 | 844.15 | 34.15 | 49.66 | 5 | 7 |
| 16 | 1,564.54 | 1,180.80 | 31.67 | 25.24 | 5 | 3 |
| 17 | 932.73 | 891.00 | 20.63 | 17.08 | 9 | 8 |
| 18 | 629.53 | 676.70 | 9.79 | 9.86 | 6 | 6 |

APPENDIX 0

REVISIONS FOR PART I OF THE

LEARNING PACKAGE

# Revisions for Module No. 1 

```
How to Calculate Salary
```


## Required Learning Activity B

Add formula and example for calculating net sales:
Net Sales

Net Sales - To calculate net sales:

```
a. determine gross sales
b. determine returns and allowances
c. subtract returns and allowances from gross sales
```

Formula -
Gross sales $=\$ 596.00$
Returns and

$$
\text { Allowances } \quad-7.50
$$

$\$ 588.50$ net sales

Example - A salesperson in the shoe department has gross sales of $\$ 603.00$ for one day. Her returns and allowances for the day total $\$ 8.60$. We subtract $\$ 8.60$ from $\$ 603.00$ to determine her net sales of \$594.40.

Revise salaries to represent minimum wage:
Hourly Salary

Weekly Salary

Formula - daily salary $=\$ 20.00$
days worked per week $=\frac{\mathrm{x} 5}{\$ 100.00}$ weekly salary
Monthly Salary
$\begin{aligned} \text { Formula } & =\begin{array}{l}\text { weekly salary } \\ \text { weeks worked per month }\end{array}=\quad \begin{array}{rl}\$ 120.00 \\ \$ 480.00 & x 4\end{array}\end{aligned}$

Example - A salesperson in accessories earns a weekly salary of
$\frac{\$ 130.00}{}$ and works 4 weeks each month. We multiply $\$ 130.00$
by 4 to determine her monthly salary of $\$ 520.00$.

## Salary Plus Commission

Example - A salesperson in draperies is working on a salary plus commission plan. Her base salary is $\$ 95.00$ and she receives a commission of one percent on net sales. During the first week in March her gross sales total $\$ 950.00$ and her returns for the same week total \$10.75. We must first subtract $\$ 10.75$ from $\$ 590.00$ to determine her net sales of $\$ 579.25$. We then multiply $\$ 579.25$ by one percent to determine her commission of $\$ 5.72$. Next we add her $\$ 5.79$ commission to her salary of $\$ 95.00$ to determine her salary plus commission which equals $\$ 100.79$.

Quota Bonus

Formula - salary $=\$ 110.00$ weekly plus three percent commission on sales over $\$ 600.00$.
net sales $=\$ 800.00$ for one week
$\$ 800.00-\$ 600.00=\$ 200.00$ amount of sales over quota $3 \%$ of $\$ 200.00=\$ 6.00$ amount of commission $\$ 110.00+\$ 6.00=\$ 116.00$ total weekly salary

Example - A salesperson in the bridal shop earns a weekly salary of $\$ 105.00$ plus five percent commission on sales over a $\$ 750.00$ quota. Her net sales during the second week in February are $\$ 900.00$. We must first subtract $\$ 750.00$ from $\$ 900.00$ to determine the amount over quota which equals $\$ 150.00$. Next we multiply $\$ 150.00$ by $5 \%$ to determine the amount of commission which is $\$ 7.50$. We then add the $\$ 7.50$ commission to her $\$ 105.00$ salary to determine her salary plus quota bonus of $\$ 112.50$.

## Practice Problems

Add a computation problem to each module:
6. A salesperson in the suit department has gross sales of $\$ 700.00$ for one day. His returns and allowances for the day totaled \$12.65. What are his net sales?

Answer: \$700.00
$-12.65$
\$687. 35

Revisions for Module No. 2

How to Calculate

Average Sale

## Required Learning Activity A

Revise the definition for transactions:

Transactions - The sale of merchandise to a customer by a salesperson.

Practice-Problems

Add a computation problem to each module:
4. A salesperson in the shoe department had gross sales of $\$ 980.00$ for one day. Her returns and allowances totaled \$20.00. She completed 40 transactions that day. What was her average sale?

Answer : $\$ 980.00$

$$
-20.00
$$

\$960.00
$\$ 960.00 \div 40=\$ 24.00$

# Revisions for Module No. 3 

How to Calculate
Selling Cost

## Practice Problems

Add a computation problem to each module:
5. A salesperson in appliances had gross sales of $\$ 1,206.00$ for one day. Her returns and allowances total \$60.70. Her weekly salary is $\$ 125.00$. What is her selling cost percentage?

Answer : \$1206.00
$\frac{-60.70}{\$ 1145.30}$
$\$ 125.00 \div \$ 1145.30=10 \%$

Revisions for Module No. 4

How to Calculate Sales

Quota Goals

Practice Problems

Add a computation problem to each module:
3. A salesperson in draperies earns a base salary of $\$ 100.00$ per week, and a two percent commission on her net sales. Her net sales for one week were $\$ 1,500.00$. If the standard selling cost for the department is $5 \%$, what is her sales quota goal?

Answer: \$1,500.00

## .02

\$ 30.00
\$100.00
$\$ 130.00 \div 5 \%=\$ 2,600.00$.
$+30.00$
$\$ 130.00$

APPENDIX P

SUGGESTED TIME SCHEDULE FOR USE OF LEARNING

PACKAGE PART I AND PART II IN WORK EXPERIENCE CLASSES

Work Experience Class (CTM 3432)
\(\left.$$
\begin{array}{ll}\text { 1st class hour } & \begin{array}{l}\text { Pretest, distribute Learning Package Part I and } \\
\text { Part II, short introduction to Learning Package, } \\
\text { instruct the students to review the modules and bring } \\
\text { questions to the next class session }\end{array} \\
\text { 2nd class hour } & \begin{array}{l}\text { Discuss students' questions concerning the learning } \\
\text { package, complete Module No. 1 }\end{array} \\
\text { 3rd class hour } & \begin{array}{l}\text { Complete Module No. 2, short discussion of the } \\
\text { module during the last five minutes of class }\end{array}
$$ <br>

4th class hour \& Complete Module No. 3, short discussion\end{array}\right\}\)| 5th class hour |
| :--- |
| Complete Module No. 4, short discussion |

Actual Work Experience Period

| lst week | Students complete Module No. 5 |
| :--- | :--- |
| 2nd week | Students complete Module No. 6 <br> Coordinator conduct telephone interviews |
| 3rd week | Students complete Module No. 7 |
| 4th week | Students complete Module No. 8 <br> Students mail sales productivity data to <br> the Coordinator |

Additional
weeks Students continue to record sales productivity data

Work Experience Seminar (CTM 3440)

| 1st class hour | Discuss Evaluation of Sales Productivity Form <br> and questions from Module No. 5 |
| :--- | :--- |
| 2nd class hour | Discuss Evaluation of Sales Productivity Form <br> and questions from Module No. 6 |
| 3rd class hour | Discuss Evaluation of Sales Productivity Form <br> and questions from Module No. 7 |
| 4th class hour | Discuss Evaluation of Sales Productivity Form <br> and questions from Module No. 8 |

Johanna Tate<br>Candidate for the Degree of Master of Science

## Thesis: DEVELOPMENT AND ANALYSIS OF A LEARNING PACKAGE, SALES PRODUCTIVITY, FOR USE IN THE FASHION WORK EXPERIENCE COURSES

Major Field: Clothing, Textiles and Merchandising

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Personal Data: Born in Poteau, Oklahoma, March 5, 1950, the daughter of Mr. and Mrs. Martin Tate.

Education: Attended elementary and junior high school in Heavener, Oklahoma; graduated from Heavener High School, Heavener, Oklahoma, in May, 1968. Received the Bachelor of Science degree in Home Economics from Oklahoma State University, Stillwater, Oklahoma, with a major in Clothing, Textiles and Merchandising in May, 1972. Completed requirements for Master of Science degree in December, 1976.

Professional Experience: Assistant Buyer, Foley's Department Store, Houston, Texas, 1972-1973. Sales Assistant, Levi Strauss, Little Rock, Arkansas, 1973-1974. Graduate Research Assistant, Department of Clothing, Textiles and Merchandising, Oklahoma State University, 1975-1976.

Professional Organizations: American Home Economics Association, Omicron Nu.


[^0]:    *Number of test questions $=44$

