INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or “target” for pages apparently lacking from the document photographed is “Missing Page(s)”. If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.

2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame. If copyrighted materials were deleted you will find a target note listing the pages in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University Microfilms International
300 N. ZEEB RD., ANN ARBOR, MI 48106
Stokes, Nancy Armes

A COMPARATIVE STUDY OF COMPETENCIES ATTAINED BY STUDENTS WHO HAVE RECEIVED INSTRUCTION IN CONSUMER EDUCATION AND STUDENTS WHO HAVE NOT RECEIVED INSTRUCTION

The University of North Carolina at Greensboro

Ph.D. 1982

University Microfilms International 300 N. Zeeb Road, Ann Arbor, MI 48106
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages
2. Colored illustrations, paper or print
3. Photographs with dark background
4. Illustrations are poor copy
5. Pages with black marks, not original copy
6. Print shows through as there is text on both sides of page
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements
9. Tightly bound copy with print lost in spine
10. Computer printout pages with indistinct print
11. Page(s) _______ lacking when material received, and not available from school or author.
12. Page(s) _______ seem to be missing in numbering only as text follows.
13. Two pages numbered _______. Text follows.
14. Curling and wrinkled pages
15. Other

University Microfilms International
A COMPARATIVE STUDY OF COMPETENCIES ATTAINED
BY STUDENTS WHO HAVE RECEIVED INSTRUCTION
IN CONSUMER EDUCATION AND STUDENTS
WHO HAVE NOT RECEIVED INSTRUCTION

by

Nancy Armes Stokes

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements of the Degree
Doctor of Philosophy

Greensboro
1982

Approved by

Dissertation Adviser
APPROVAL

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation Adviser

Committee Members

April 5, 1982
Date of Acceptance by Committee

April 5, 1982
Date of Final Oral Examination
The purposes of this study were to determine whether students who had completed a semester of Home Economics 7115, Consumer Education, had attained a higher level of competency than those who had not received the instruction, and to determine some reasons for the enrollment decline in one educational district. The specific objectives were to determine the competency level of students before and after enrolling in Home Economics 7115, Consumer Education, to compare the competency level of students who had instruction in Consumer Education with that of students who had not had specific instruction, to determine whether a relationship existed among the variables grade level, sex, age, and socioeconomic status, and to identify some reasons for declining enrollment in one educational district.

The sample consisted of 82 students (46 from the control groups and 36 from the experimental groups). Students were ages 15 to 19 and were enrolled in grades 10, 11, and 12 in public senior high schools in District VI. Each student completed a pretest and a posttest. The instrument was the Test of Understanding in Personal Economics. Both groups completed the pretest in September, 1981, and the posttest in January, 1982. The experimental group received instruction in Home Economics 7115, Consumer Education, after completing the pretest, while the control group received no formal consumer education instruction.
The hypotheses were tested utilizing t test, correlation techniques, and chi-square. A significant relationship was noted for two of the five hypotheses.

Students who had received instruction had a significantly higher mean gain score than students who had not received instruction. An inverse relationship was evident for the variable of age. The younger students had a higher mean gain score. No significant relationship was indicated for sex, grade level, and socioeconomic status.

Teachers indicated that some reasons for declining enrollment were increased number of electives, removal of the course as a requirement, and declining student interest.

Findings from the study could be of value to educators planning curricular changes in consumer education.
ACKNOWLEDGMENTS

Sincere appreciation is expressed to Dr. Mildred B. Johnson for her support, encouragement, and guidance throughout this study, both as an advisor and friend. Appreciation is also extended to the committee members, Dr. Joseph Bryson, Dr. Barbara Clawson, and Dr. William Powers.

Gratitude is expressed to the North Carolina Council on Economic Education and the Keller Small Grants Fund for financial assistance which they provided. Also, sincere appreciation is extended to Dr. Otto Lockee for the encouragement, advice, and assistance provided throughout the study.

The author is indebted to the students and teachers of South Mecklenburg Senior High School and Garinger Senior High School who participated in the study. Mr. Robert Marshall and Mr. Gregory Clemmer provided encouragement and consideration for which the author is grateful.

A special acknowledgment is given to the author's family, especially her sons, Frank and Charles, for their support, encouragement, and patience throughout the study.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVAL PAGE</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Importance of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>8</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>10</td>
</tr>
<tr>
<td>Background</td>
<td>10</td>
</tr>
<tr>
<td>Programs and Policies</td>
<td>16</td>
</tr>
<tr>
<td>Need for Improvement</td>
<td>26</td>
</tr>
<tr>
<td>Recommendations for Change</td>
<td>29</td>
</tr>
<tr>
<td>Teacher Certification and Preparation</td>
<td>32</td>
</tr>
<tr>
<td>Studies Related to Competencies of Students</td>
<td>35</td>
</tr>
<tr>
<td>Curriculum Guides</td>
<td>41</td>
</tr>
<tr>
<td>Recommendations from Research</td>
<td>47</td>
</tr>
<tr>
<td>III. STUDY DESIGN</td>
<td>50</td>
</tr>
<tr>
<td>Study Design</td>
<td>50</td>
</tr>
<tr>
<td>Population and Sample</td>
<td>50</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>53</td>
</tr>
<tr>
<td>Data Collection</td>
<td>57</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>60</td>
</tr>
</tbody>
</table>
CHAPTER

IV. ANALYSIS OF FINDINGS ........................................... 62
   Description of Participants. ............................... 63
   Description of Data. .................................. 67
   Mean Gain Score. ........................................ 71
   Behavioral Changes ..................................... 75
   Enrollment .............................................. 78
   Tests of Hypotheses. ................................... 80
   Summary .................................................. 85
   Discussion of Findings .................................. 86

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS .............. 89
   Summary .................................................. 89
   Conclusions ............................................ 91
   Recommendations for Future Research ....................... 93

BIBLIOGRAPHY .................................................. 94

APPENDICES

A. Instructional Materials and Strategies ..................... 103
B. Instruments ............................................... 112
C. Competencies and Subcompetencies ........................... 123
D. Mean Score by Demographic Variables ....................... 130
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number and Percentage of Participants by Group</td>
<td>63</td>
</tr>
<tr>
<td>2.</td>
<td>Number and Percentage of Participants by Age: Pretest and Posttest</td>
<td>64</td>
</tr>
<tr>
<td>3.</td>
<td>Number and Percentage of Participants by Sex: Pretest and Posttest</td>
<td>65</td>
</tr>
<tr>
<td>4.</td>
<td>Number and Percentage of Participants by Grade Level: Pretest and Posttest</td>
<td>66</td>
</tr>
<tr>
<td>5.</td>
<td>Number and Percentage of Participants by Socioeconomic Status: Pretest and Posttest</td>
<td>67</td>
</tr>
<tr>
<td>6.</td>
<td>Percentage of Students Who Answered Questions Correctly.</td>
<td>68</td>
</tr>
<tr>
<td>7.</td>
<td>Behavior Checklist - Numbers of Students by Category and Items</td>
<td>76</td>
</tr>
<tr>
<td>8.</td>
<td>District Enrollment-Fall Semester, 1979-1981 Home Economics 7115, Consumer Education</td>
<td>79</td>
</tr>
<tr>
<td>9.</td>
<td>Relationship Between Score and Sex and Socioeconomic Status and Sex</td>
<td>84</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

FIGURE

1. Mean Gain Score by Sex .......................... 71
2. Mean Gain Score by Age .......................... 72
3. Mean Gain Score by Grade Level ................ 73
4. Mean Gain Score by Socioeconomic Status .... 74

vii
CHAPTER I

INTRODUCTION

Effective consumer education for all Americans is currently being emphasized. Consumer protection groups, legislative mandates, newspaper and magazine articles, and television programs indicate the need for an informed public in the area of consumer practices.

Contemporary society exerts pressures upon individual consumers in a manner unprecedented in American history. Advertising techniques employed by the media bombard consumers with thousands of items and services from which to choose. Many consumers perceive themselves as casualities in a battle for which they have had little or no training. Garmon and Eckert (1974) found that the American consumer was bilked out of more than $500 million every year by mail frauds alone. Add to that figure the millions of dollars lost in other aspects of the marketplace, and the losses are staggering.

In order to compete effectively in the marketplace, consumers need additional training in consumerism. By incorporating consumer education in all aspects of the public school curriculum, educators can help prepare this generation of consumers to meet their needs and responsibilities. Emphasis on effective consumer education should be a vital consideration for all school systems.

President John F. Kennedy, in a special message to Congress on March 15, 1962, discussed protection of consumer interests. He stated the Bill of Rights for the consumer as follows:
1) The right to be informed
2) The right to safety
3) The right to choose among a variety of products
4) The right to be heard through representation in government (Kennedy, 1962).

President Gerald R. Ford, on November 19, 1975, issued a special statement concerning consumers. President Kennedy's four statements were reiterated and a fifth right was added: The right to consumer education (Allentuck & Bivens, 1977; Langrehr & Mason, 1977).

The importance of and necessity for consumer education has increased as American families have become less self-sufficient and more dependent on the marketplace (Hawkins, 1977). In order to function effectively, consumers must be informed.

What is consumer education? Various definitions have been purported. Stanley (1976) stated that consumer education was the preparation for the business of living. The President's Committee on Consumer Interests in 1968 defined consumer education as "the preparation of the individual in the skills, concepts, and understandings required for everyday living to achieve within the framework of his own values, maximum utilization of and satisfaction from his resources" (Boyd & Stovall, 1978, p. 2).

Johnston (1971) discussed the definition stated by the President's Committee on Consumer Interests in some detail. Discussing the definition phrase by phrase, Johnston suggested that the focus of consumer education must center on the student and should have as its purpose the changing of individual consumer behaviors. Unlimited wants and
desires coupled with limited resources necessitates an understanding of the importance of decision making to the consumer. Making intelligent consumer decisions requires the acquisition and use of information-gathering skills. Teachers must respect the value system of the students. The purpose of consumer education is not to make decisions for students, but to provide students with knowledge and understanding so that intelligent consumer decisions can be made.

Consumer education must be an ongoing process. To be effective, integration into the formal instructional program from kindergarten throughout the schooling process must be achieved. By virtue of being an ongoing process, effective consumer education should be an integral part of all disciplines. Limiting instruction to one or two program areas could result in large numbers of students receiving no organized instruction in the rudiments of effective consumerism.

Consumer education has been taught in schools since before the turn of the century. As early as 1909, groups were indicating interest in and concern for consumer protection and instruction. During the 1909 Lake Placid Conference which resulted in the founding of the American Home Economics Association (AHEA), a paper was presented calling for the development of standards and labeling of consumer goods (Langrehr & Mason, 1977). The Vocational Act of 1963 and the subsequent amendments to that act provided significant impetus to the consumer education movement. The Vocational Education Amendments of 1968 recommended a series of programs to prepare youths and adults for the dual role of homemaker and wage earner. In 1974, the Ninety-third Congress emphasized the importance of consumer education by implement-
ing legislation to establish the Office of Consumers' Education within the Office of Education. The office, headed by a Director of Consumer Education was funded by a $15,000,000 per year allocation. Additionally, funds were allocated to develop curricula in consumer education, to disseminate information regarding curricula, to provide grants to State Education Agencies (SEA's) and Local Education Agencies (LEA's) for support of programs at elementary, secondary, and higher education levels, and to provide preservice and inservice training for educational personnel.

The Ninety-fourth Congress in 1976, by passage of Public Law 94-482, placed additional emphasis on Consumer Education. Instruction in management of resources, promotion of nutritional knowledge and food use, and parenthood needs to meet current societal needs were recommended.

The Problem

Every individual is a consumer and every individual makes consumer decisions each day. In order to make decisions which will result in the most effective use of resources, instruction in the process of decision making is essential. Young people must be given instruction in methods of dealing with consumer issues and problems. Effective consumer education instruction should enable students to better cope with economic problems and issues.
Importance of Study

America's marketplace has become more complicated. Thus, consumers need to know more about products and producers as well as their own rights and responsibilities. Consumers are confronted daily and hourly with decisions. How can they function most effectively in an economy such as ours (Allentuck & Bivens, 1977)? Effective instruction in consumer education could assist the consumer in making the vital decisions. The lack of consumer education, coupled with the sophisticated efforts of the professional marketer, leaves consumers unable to cope with the variety of products in the marketplace, increased inflation, and dwindling resources (Boyd & Stovall, 1978).

Voorhis (1977) stated additional problems for the contemporary consumer. The economy suffers from two evils which orthodox economists said could never happen simultaneously: (1) inflation of prices and the cost of living, and (2) recession and widespread unemployment.

Increased emphasis on the quality of consumer education in the United States will enhance the competency of consumers to meet and deal with the problems which they encounter. The concept that additional instruction is needed goes virtually unchallenged. A group of West Virginia home economists stated that one third of the adults function at an acceptable level of economic literacy, one third are marginally literate, and fully one third are economically illiterate; that is, they cannot apply skills to the everyday demands of a consumer (West Virginia Curriculum Guide, p. 1).

A search of the literature indicated that little has been done in North Carolina to determine the level of effectiveness of consumer
education in the state. Specific information is needed in order to develop programs which would provide needed instruction.

The Education Commission of the States first studied the status of Consumer Education in 1972-73. A final report was issued in 1979. The Commission noted several changes which had occurred in the ensuing years as well as changes which were needed. The Commission found that increased interest in consumer education was evident. Indicative of the increased interest was the inclusion of consumer competencies among the competencies required to be attained before high school graduation. Significant deficiencies were the lack of coherent, high-level planning of programs and systematic implementation. Programs were found to be conducted primarily on the lower levels of skill and cognitive knowledge. Finally, the Commission reported that additional financial support was needed and that appropriate teacher education had been virtually ignored (Wilhelms, 1979).

By 1978, 38 states and territories had reported specific policies related to consumer education. Of these, 36 had specific policies and two indicated implied policies. Between 1973 and 1978, eight additional states prepared curriculum guides in consumer education and six additional states required a consumer education or competency examination for high school graduation. North Carolina's policy, established by the State Board of Education, stated that the free enterprise system would be taught. Many other states have programs which were established by legislative mandate (Wilhelms, 1979).
Purpose of the Study

The major purposes of the study were to determine whether students who had completed one semester of Home Economics 7115, Consumer Education, had attained a higher level of competency than those who had not received the instruction and to determine some of the reasons for declining enrollment in Home Economics 7115, Consumer Education, in one educational district. The specific objectives of the study were (1) to determine the competency level of students before and after enrolling in Home Economics 7115, Consumer Education; (2) to compare the competency level of students who had instruction in Home Economics 7115, Consumer Education, with students who had not had specific instruction; (3) to determine whether a relationship existed among such demographic variables as grade level, sex, age, and socioeconomic status; and (4) to identify some of the reasons for declining enrollment in Home Economics 7115, Consumer Education, in one educational district.

Limitations of the Study

The study was limited to students enrolled in home economics in the fall semester of 1981. The control group consisted of students enrolled in a semester home economics course other than 7115, Consumer Education; the experimental group consisted of students enrolled in Home Economics 7115, Consumer Education. Assessment was limited to the cognitive knowledge of those students enrolled in home economics.

Based on the spring projections, the study was further limited to those schools in Districts V and VI who indicated that Home Econo-
mics 7115, Consumer Education, would be taught in the fall semester of 1981. In the spring of 1981, each school had been required to submit projections of fall enrollment in specific courses to the Regional Vocational Office. These projected figures were the only data available to the Regional Office and the State Department of Public Instruction in Raleigh before school began. After students reported and classes began, more complete figures were available, but until students actually reported, the spring projections provided the basis for allotments for the Regional Offices and the State Department of Public Instruction.

Hypotheses

The following hypotheses were presented for this study:

Hypothesis One: There is no significant difference in the competency level attained by students who had received instruction in Home Economics 7115, Consumer Education, and students who had not received instruction.

Hypothesis Two: There is no significant relationship between grade level and the competency level of students enrolled in Home Economics 7115, Consumer Education.

Hypothesis Three: There is no significant relationship between sex and the competency level of students enrolled in Home Economics 7115, Consumer Education.
Hypothesis Four: There is no significant relationship between age and the competency level of students enrolled in Home Economics 7115, Consumer Education.

Hypothesis Five: There is no significant relationship between socioeconomic status and the competency level of students enrolled in Home Economics 7115, Consumer Education.

Definition of Terms

Terms used in relation to this study were the following:

**Consumer Education** was defined as formal instruction in the techniques of consumerism.

**Educational District** was defined as a territory designated by the State Department of Public Instruction. North Carolina is divided into eight educational districts.

**Socioeconomic Status** was designated as Level I or Level II: Level I consisted of those students who received financial assistance in the form of free lunch at school; Level II consisted of those students who received no financial assistance.
CHAPTER II
REVIEW OF LITERATURE

Part of the difficulty in the development and advancement of consumer education has been the lack of an identity separate from other disciplines. Evolution of consumer education has been as an academic stepchild of home economics, business, vocational courses, and other fields. Having such close identity with the other disciplines has obscured the purposes and objectives of consumer education and has prevented development as an independent discipline (Willett, 1979).

While excessive dependence upon other disciplines can lessen the impact of consumer education, to reach maximum effectiveness, consumer education should remain multidisciplinary. As a lifelong process, introduction should begin with a student's first enrollment in school and continue throughout life. Introductory consumer concepts can and are being introduced to preschoolers through the use of cartoon presentations during cartoon shows habitually viewed by young children. By building on the casual introduction, educators can strengthen consumer skills year by year as children mature.

Background

Effective consumer education could help allay the cynicism of consumers toward the market place which has existed since the first
barter took place. Diogenes (412–323 B. C.) stated, "The market is a place set apart where men may deceive each other." Such a view can only increase the problems related to lack of trust between producer, seller, and consumer. Attitudes expressed by Diogenes may be found throughout history to the present. Consumer protection organizations have often provided the impetus for widespread consumer education with the thought that an educated consumer would be able to make more efficient use of his resources.

Founded in 1899, the National Consumers League sponsored meetings in the early part of this century to educate consumers about ways to select products. Through the years, the League mounted campaigns to encourage the public to take action when abusive practices were encountered. Campaigns have helped to educate individual consumers about steps in the production and retail process. The National Consumers League suggested that consumer education should not only inform but also encourage consumers to organize and lobby for improved conditions (Willett, 1979).

Early consumer activity dealt primarily with matters pertaining to food. The first legislative mandate resulted in the Pure Food and Drug Act of 1906 (Richardson et al, 1977). The adulteration of food was and is a major concern to the consumer.

The 1920's and 1930's were turbulent times in America. All aspects of daily life were affected by the uncertainties which existed. Suspicious attitudes developed toward business, and consumers became determined to spend and buy as little as possible. Scarcity of money during the period also lessened both activities (Wilhelms, 1979).
Scholarly works and consumer research endeavors of the 1920's and 1930's led to development and publication of the Consumers' Research Magazine in 1929, and the Consumers Union with its publication, Consumer Reports, in 1935. Consumers Union established testing laboratories and upheld a commitment to provide unbiased, useful information. Consumer Reports has 2.25 million subscribers and remains an authoritative product-evaluation publication. Consumers Union provided leadership into the 1940's for consumer education and consumer protection forces (Richardson et al, 1977; Willett, 1979).

During the 1940's, consumer education enjoyed acceptance on a wide scale. Wilhelms (1979) stated that acceptance was the result of a dominant educational philosophy which favored getting directly to the real concerns of life. Consumer courses by the thousands were originated with all subject fields making attempts to contribute to consumer education. The zenith of interest subsided with the arrival of the 1950's and the intense campaign of the period toward purely intellectual disciplines. Ordinary life problems were not considered worthy of intensive study. Indicative of the prevailing attitude was the legislative action of the period. Richardson (1977) stated that from 1957-1967, 114 bills relating to the creation of a federal consumer advocate agency were introduced. Of the bills introduced, 109 did not get a committee hearing, and none of the bills passed.

By the mid 1960's, public concern rose sharply for the needs of those students who were not proficient in the academic areas. Curriculum content was scrutinized and areas such as consumer education which were close to the realities of life, gained favor. The adult
consumer movement gained momentum once again (Wilhelms, 1979).

In 1967, the Illinois General Assembly enacted legislation requiring instruction in consumer education in grades 8 through 12, including junior high as well as senior high schools. Although frequently misquoted, the law required instruction in consumer education, which could be offered as a separate course or as part of other courses (Alexander, 1979). Even though the law did not specifically require a separate course in consumer education, it became an important milestone for consumer education in the United States.

During the years since the 1967 legislation, Illinois had continued to improve its consumer education program. A comprehensive guide was developed and requirements were refined. There is not a set requirement of one course called consumer education, but schools and students may select from a number of options. Requirements include at least nine weeks of consumer education taught by a teacher meeting the regular standards of the teacher's basic field. Illinois continues to have a lively, imaginative program with built-in plans for continued self-improvement (Wilhelms, 1979).

In 1968, Public Law 90-576 was passed with a program entitled "Consumer and Homemaking Education." Funds were provided for the 50 states and territories. Some innovative consumer education programs were developed. One significant policy was support for teacher training, curriculum research, and development for homemaking as well as consumer education (Wilhelms, 1979).

The 1970's saw several significant milestones for consumer education. In 1970, the President's Committee on Consumer Interests pub-
lished a booklet, *Suggested Guidelines for Consumer Education, K-12*. The booklet provided information on the nature, content, and implementation of consumer education in America's schools and is discussed in detail later in this chapter. In the same year, Joseph H. Uhl published *Survey and Evaluation of Consumer Education Programs in the United States, Volumes I and II*. Uhl's study has served as a reference for implementing consumer education programs. Uhl indicated that while consumer education had diversified somewhat, the primary emphasis of the field was on buymanship of basic goods and services.

Two significant occurrences were noted in 1972-1973. First, the Consumers Union published an extensive study of 72 innovative consumer education programs throughout the nation. Second, in 1972, Public Law 92-318 was enacted. This law established an Office of Consumers' Education within the Office of Education, mandated the position of Director of Consumers' Education, and authorized the spending of 80 million dollars in three years. Encouraged were curricula development, inservice training, evaluation, and educational programs within traditional education agencies. In 1973, the Education Commission of the States published a comprehensive survey of state programs entitled *Consumer Education in the States*. The survey stated several conclusions and recommendations for state educational systems.

Public Law 93-380 was passed in 1974. Section 811 of the Law paralleled the Consumers' Education provision of the 1973 Act. Major provisions of the law were the creation of an Office of Consumers' Education, the appointment of a Director of Consumers' Education, and the establishment of a contract and grant program in consumer education.
Following the action of Congress, in 1975, the President's budget for 1976 contained the first request for federal funding of a consumer education program (Richardson et al, 1977). In 1976, Congress reemphasized consumer education through the passage of Public Law 94-482. Recommended were instruction in management of resources, promotion of nutrition knowledge and food use, and parenting skills to meet current societal needs.

The Education Commission of the States (ECS) in 1977 received a grant from the Office of Consumers' Education to increase awareness among education policy makers of the need for consumer education, to increase the commitment to provide useful consumer education programs, and to determine the status of consumer education in labor, education, and industry (Wilhelms, 1979).

The Education Commission of the States published Consumer Education Project: Final Report in 1979. Through the use of funds allocated in 1976, surveys were conducted of state education agencies as well as private enterprise. Regional meetings were held and the resulting findings were cited in the report (Wilhelms, 1979).

Consumer Education emphasis has followed cycles relative to national interest in consumer issues. Current emphasis can provide consumer educators with the support necessary to establish effective consumer education programs which will provide students with meaningful consumer skills.
Programs and Policies

The increased necessity for improved consumer education has been verified by various sources. Maryland's State Department of Education, in 1974, cited two compelling forces for acceleration of consumer education: The first was the need to make education relevant to the important problems of real life; the second was made evident by problems of living in a modern industrialized economy. Consumer education has the responsibility of preparing citizens to meet those needs.

In determining the effectiveness of programs, decisions must be made as to whether or not consumer education programs are fulfilling their mission. The President's Committee on Consumer Interests defined consumer education as the "preparation of the individual in skills, concepts, and understandings that are required for everyday living to achieve, within the framework of his own values, maximum satisfaction and utilization of his resources (p. 33)." Acquisition of those skills enables consumers to make the essential choices. The purpose of consumer education is not to direct choices or impose values, but rather to provide awareness of alternatives and opportunities and to assist consumers in making the choices best for their purposes in light of their own values. Thal and Guthrie (1969) reported that homemakers viewed the major consumer problems as those of making choices rather than of acquiring information about products. Indications were that, as important as immediate consumer choices were, more concern was expressed for the overall quality of life.

Existing programs across the country vary in emphasis and content. A program in Iowa was described as devoting considerable time to having
students plan a "dream wedding" and furnish a "dream house". Students were not encouraged to question whether or not they would be able to purchase a house or choose to get married (Willett, 1979). While those topics may hold the interest of high school students, little is done to prepare them to meet the problems of real life situations. Additional emphasis must be given to energy costs and shortages, inflation, recession, consumer activism, and decision making as a consumer-citizen.

In the fall of 1975, Indiana teachers were surveyed to determine the student consumer competency level. Teachers indicated that less than four percent of the students were achieving basic consumer and economic understanding. An additional finding was that schools had a segregated approach to consumer education by disciplines. Instruction was relegated primarily to the upper grades of secondary schools.

Indiana developed a three-pronged approach to consumer education with recommendations for elementary schools, secondary schools, and adults. Most children begin to function economically at an early age by receiving allowances, gifts, and earning small amounts of money. By early grades, children begin to be critical of advertisements, and elementary teachers aid development of consumer competency by helping children integrate skill and knowledge areas.

Many secondary-school students work as well as attend school. Instruction in the intelligent purchasing of goods and services and an understanding of the economic consequences of decisions made is needed. Today's students are exposed to many more kinds of influences than students in any past generation. Students are more frequently
influenced by their peers and may be affected by conflicting value systems in their decision making. As major consumers, teenagers need the opportunity to learn how to make informed decisions encompassing all aspects of the economic picture. To be responsible, voting citizens, students must be given instruction in all aspects of their dual role as consumer-citizens.

Adult consumers in Indiana have been aided by programs dealing with topics concerning their daily lives. According to guidelines developed for consumer and economic education, the major focus of the programs dealt with issues relevant to the adult consumer, and the key has been flexibility and diversity (Indiana State Board of Vocational and Technical Education, No Date Given).

Robert J. Alexander, with the Education Commission of the States (ECS), compiled state policies in consumer education (1979). The manual which was based on a national survey conducted by the ECS in 1978, defined consumer education as including consumer decision making, economics, personal finance, and consumers' rights and responsibilities. Data included the type of state policy, the year the policy was adopted, and whether the policy was mandated by legislature or state boards of education. Included, also, were specific requirements at state, local, and student levels. ECS distinguished between the three levels of policy requirements. The three levels are those of the state education agency (SEA), local education agency (LEA, and student. SEA requirements indicated that the policy was mandated by the SEA. On the LEA level, each district must follow a course of action and requirements on the student level indicated that students must receive the instruction.
Differences must be carefully noted. A LEA may be required to make instruction available, but students may not be required to receive instruction.

Thirty-seven states and Washington, D. C. listed specific policies. Thirteen states had no policies other than those stated in the state vocational education plans required by Public Law 94-482, the Vocational Education Act. Thirty-one states have specific requirements or mandates, six of which apply only to SEA's, not LEA's. Pennsylvania, for example, requires the LEA to offer a course, but does not require the student to take the course. Twenty-four states mandate student instruction and most of those require SEA's to provide assistance to LEA's. Of those 24 states, seven required a consumer education course for graduation.

Delaware's legislature in 1974, advised that identifiable units in consumer education be introduced into social studies and other appropriate subject areas. By 1975, the legislative intent was that each graduate would receive at least 45 class hours of instruction in economics, buying practices, advertising analysis, consumer behavior, and roles, rights, and responsibilities of consumers. A program evaluation after three years was required.

Iowa's legislature in 1975, listed comparative and consumer economics as a part of the four units of social studies required for graduation. Unlike Delaware's strong statement, Iowa specified that the consumer economics shall be taught, but need not be required. Thus, legislative mandates require careful interpretation to determine the depth of requirements.
Kentucky's policy, developed in 1974, encompassed a broader area. Not only did the bill specify instruction in elementary and secondary schools, but required the state department to assist in the development of curricula for public schools. Additionally, SEA's were to identify innovative teaching and evaluation methods. Significantly, in-service training for teachers and administrators was required.

North Carolina's General Assembly in 1975 mandated that instruction in the free enterprise system must be included at the high school level. Instruction in the free enterprise system was to include history, theory, foundation, and the manner in which it is practiced. Additionally, consumer education throughout the social studies program, K-12, was listed in the "required course of study." Instruction was to focus on economic and personal finance. "This policy is as much a mandate as the law since the required course of study indicates the minimal instruction that must be received by each student" (p. 60).

Oklahoma's 1974 Economic Education Act defined economic education, stated the purpose of the Act, and prescribed duties of the State Board of Education, the State Department of Education, and the Boards of Education of individual school districts. Economic education was defined as citizenship competencies needed by individuals for decision making as consumers, career choices as workers, and personal and societal decisions as voters. The intent of the Act was to insure the development of a comprehensive economic education program for grades K-12. Implementation of the program was to begin with inservice programs for teachers and administrators and the development of materials for teachers. Local system evaluation of the effectiveness of the
program was prescribed. Significantly, provisions for funds were included in the Economic Education Act.

While the review of policies of specified states was not all inclusive, trends and general requirements could be discerned from the information given. Alexander's report listed each state separately and provided an informative base for evaluation of the progress of consumer education nationwide (1979).

Wilhelms (1979) also compiled information on state and territorial programs in consumer education. It was reported that curriculum guides for consumer education had been prepared by either the state department or some local agency in 33 states and territories. Instruction in consumer education was reported as a requirement for graduation in 25 states. Seven states reported that consumer competencies were a part of the state competency program and that a course in consumer education, economics, or the free enterprise system was required for graduation. The consumer education programs in six states, California, Georgia, Hawaii, New Jersey, Illinois, and Ohio were described in greater detail than were the other programs. A summary of each of these programs follows.

California. Consumer education has flourished under a climate of approval and support from all aspects of government from the Governor's office to the office of the Attorney General. The legislature had not issued mandates as such, but had issued resolutions urging schools to provide for the education of consumers. The Department of Consumer Affairs does not work directly with the schools, but it has developed a large number of publications that teachers use extensively in their
classes. Most of the materials that have been developed in other states have focused on K-12; an important California publication has been designed for K-14.

The Home Economics Education Program has been listed as the prime promoter of consumer education in California. The total development of the individual was stressed through programs designed for elementary, intermediate, high school, community college, and adult levels. Intensive efforts have been undertaken in curriculum development. More LEA's now require consumer education even though it is not a state requirements. This has resulted from the impact of state leadership.

**Georgia.** Consumer education changed drastically in Georgia with a State Board of Education mandate requiring that students have two courses in consumer or economic education before graduation. These requirements were to become effective for all enrolling ninth graders in the 1980-1981 school year. As a result of the mandate, SEA's have been involved in assisting LEA's in the implementation of the mandate. Teaching materials were made available to LEA personnel. Consumer education has reached a high priority level in Georgia.

**Hawaii.** The entire state of Hawaii comprises one school district. This enabled the state to move directly when changes were implemented. Though the state legislature had been active in consumer protection, the thrust of consumer education did not come from legislative mandate but from within the SEA and was strongly supported by the state superintendent.

Growth in consumer education began with a two-week minicourse requirement. The initial offering won instant and strong support
from students and teachers alike and grew to include a variety of programs. At grade 8, consumer economics is introduced, followed at grade 10 with a treatment of consumer law. One of the most popular electives selected by 12th graders is consumer education. Mathematics classes feature strong emphasis on consumer mathematics. Science, business education, and health and physical education are involved in the education of consumers. Home economics and the other practical arts offer a team-teaching approach to consumer education.

Development of instructional materials was more extensive than in most other states. The materials were developed and tested through numerous workshops and conferences. Hawaii has made great strides in providing effective consumer education and continues to reach out for programs beneficial to all the citizens of the state.

New Jersey. Consumer education in New Jersey is funded primarily through the Vocational Education Act. Consistent funding enables constant improvement of the program. The Center for Consumer Education Services was a focal point for consumer education and facilitated program improvement by constantly improving resource materials and by conducting workshops. Several consumer organizations in New Jersey have provided assistance for programs in a state known for consumer consciousness. The consumer education program has grown over the years and plans of the various organizations were for continued growth and improvement.

Illinois. Illinois was the first state with a legislative mandate requiring all schools to offer and all students to study consumer education. The mandate has been broadened since 1967 to include
interaction of consumer roles.

Organizational structure was altered so that several persons in the SEA have been involved and assistance made available in all aspects of instructional programming. The shift in organizational structure was not as significant as the self-improvement process in which the state was involved. The Illinois Consumer Education Association, responsible for program improvements, is composed of persons from business education, home economics, social studies, and other areas, including some administrators.

Specific listings of course offerings throughout the educational sequence are extensive. Innovation and broadening of concepts and purposes are evident. Illinois had one of the most complete approaches to the education of consumers and developed tests to determine consumer needs. Some of the tests have been used as a pretest to determine needs and others as a posttest to determine program effectiveness.

Ohio. In 1969, the Ohio Legislature adopted a resolution urging schools to begin systematic and organized programs of consumer education. The legislature emphasized commitment to consumer education by special funding to promote the teaching of consumer education. The annual funding has enabled coordinated efforts.

One basis of the Ohio Program was the belief that consumer education concepts could be integrated into the existing curriculum rather than through the development of a separate course of study. One significant development has been The Consumer Education Curriculum Guide for Ohio. The Guide had supplements explaining how consumer education may be integrated into all disciplines.
Two persons are designated in the SEA to work with consumer education statewide. They work with funding, gathering ideas, pulling together guides and supplements, distributing and disseminating information and resources. Other coordinators are located throughout the state and work full time with teachers and administrators, developing curriculum and conducting workshops, conferences, and seminars. The program in Ohio has advanced through a coordinated effort which required cooperative efforts at all levels of the educational system.

An interesting difference developed in Wake County in North Carolina. In 1977, with the merger of the city and county school systems, the Board of Education made the decision to require a semester course in consumer education. Monies were allocated to develop the course and teachers were inserviced during the summer of 1977. The course was developed by teachers from vocational education and social studies. Teachers worked on the project because they felt the need for a course in economics. The course was taught in social studies and home economics.

Concerns about the course have developed over the past year. Many teachers believed that if the course were required, students should have the option of testing out and taking a more sophisticated economics course (Johnson, 1982). As a result of those concerns, Wake County conducted a student/teacher assessment survey in April, 1981, to determine what action should be taken with regard to the course.

Results of the survey indicated that students generally agreed that the course was worthwhile and applicable to everyday life. Students also agreed that the course provided instruction at an appro-
appropriate rate using appropriate materials and activities.

Teachers from both instructional areas, vocational education and social studies, generally agreed that the course was worthwhile and applicable to everyday life. As did the students, teachers agreed that instruction was provided at an appropriate rate using appropriate materials and activities. Ninety-six percent of the vocational teachers and 38 percent of the social studies teachers indicated that the course should be required of all students. More than half of the teachers indicated that students had been challenged by the course.

Other major conclusions of the study were that the course needed revision including updating of all teaching materials. Those involved in the study agreed that major changes would be a priority for another school year (Wake County Public School System, 1981).

Need for Improvement

It is not debatable that a need for improvement in consumer education exists. Experts agree without exception that improved consumer education will improve the quality of life for citizens now and in the future. There is a vast difference between the standard of living and the quality of life. Voorhis (1977) stated that, "the interest of people as consumers is the one and only interest in which every human being shares (p. 3)."

A need for increased consumer protection has been stated by many. How that protection is facilitated and information disseminated remains a problem. Today's consumer has more protection than in the past, but is still unprotected in many areas of the economy. Many
consumers are not aware of the availability of protection agencies, nor do they understand their role, rights, responsibilities, and opportunities as consumers (Boyd & Stovall, 1978). Availability of protection seems not to be as critical in the minds of many as the understanding and extent of that protection. Langrehr and Mason (1977) believed that part of the impetus for effective consumer education stemmed from the belief that education would reduce the need for institutionalized consumer protection. If a consumer can, before purchasing, determine whether or not a product is safe, product safety legislation may not be needed. Langrehr reiterated in 1979 that a better prepared consumer would reduce the need for third party regulation.

Allentuck and Bivens (1977) discussed the advent of the concept of consumer protection. The exchange process from the viewpoint of the consumer developed only in the twentieth century. The system developed on the basis of caveat emptor, let the buyer beware. Legislation enacted by lawmakers to produce product quality and safety standards has created a change to caveat venditor, let the seller beware. Increased effectiveness of consumer education should enable consumers to make full use of information and protection offered by institutions and agencies.

Improved consumer education instruction could assist consumers in achieving their full potential in the marketplace. Monsma and Bannister (1979) stated two basic assumptions in the scope and emphasis of program effectiveness. The first assumption was that consumers should take an active role in influencing goods and services rather than merely reacting to those goods and services available. Secondly, money man-
agement skills traditionally taught should be supplemented with skills in dealing with the interrelationship of the consumer with economic, political, and social systems within which marketplace decisions occur. This relationship must be integrated into consumer education programs to enable students to function effectively as consumer-citizens.

Additionally, social and economic changes which have been ignored in consumer education programs and materials must be addressed. Discussion should include the shifting of provision of goods and services from the private sector increasingly to the public sector. Increased consumption of human services and the changing composition of the family are important factors. Students need to learn to assess the effects of the increased numbers of working wives and mothers on the future of the family. Inflation, consistently a topic in contemporary economics, has been neglected or ignored in many consumer education programs. All of these must be included to enable the consumer to deal realistically with his decisions. Individual economic decisions are in need of continual emphasis, but the framework should be broadened to include the impact of these individual decisions on the environment and on the results of collective action.

Willett (1979) was more graphic in her premise of needed improvement. She stated that consumer education had been based on purposes and objectives which were irrelevant, naive, or false. At best, objectives were seen as being limited. Gaps were noticeable between what consumers needed to know and what they were being taught in order to deal with abuses which were dealt out in the marketplace. According to Willett, studies indicated that most students received minimal
practical benefit from consumer education. Students were found to be unable to answer questions on a variety of economic topics from savings to auto repairs. Whether or not they had been enrolled in consumer education classes seemed to make little difference.

While many improvements are still needed, progress has been made. Clark and Barton (1981), in a summary of a nationwide survey of economic education, discussed several findings. The major finding was that more economics was being taught by teachers who were better trained. Teachers indicated that better materials were available and in larger quantities than in the past.

Twelve years ago, only 24 percent of the nation's high school students took a course in economics. In the 1981 survey, almost half of the teachers indicated that a course in economics was required in their schools, and 87 percent of junior and senior high school students could elect economics.

Legislative mandates have called for improved and increased consumer education for some time. While mandates issued by legislatures and boards of education can guarantee programs, they do not guarantee quality programs.

Recommendations for Change

"In a consumer-directed economy, the individual is treated as something else than a 'buying machine'--a robot created to consume the good, bad, and indifferent products and services of our economic system (Troelstrup & Hall, 1978, p. 19)." In order to direct the economy, the consumer must be educated in the consumer process.
Consumer education should develop competencies in process and content, in process skills, and in product information (Boyd & Stovall, 1978).

Willett (1979) suggested that in an expanded role, consumer education should reflect a hierarchy of knowledge and ability.

To meet current and future demands, consumers should be taught:

- to cope and to evaluate before purchasing,
- to understand basic economics and individual decisions in a societal context,
- to question, to analyze and to ask for redress,
- to conserve resources,
- to participate in governmental and business decisions, and
- to influence improvements in the private and public sectors by developing alternate production and delivery systems (p. 57)."
Understanding the relationship between individual decisions and group well-being should be an added objective of consumer education. Consumer objectives should also challenge conventional economic theories of consumption and consumer sovereignty. Inherent conflicts between consumer and business interests and ways to address these conflicts in a constructive manner need to be taught (Willett, 1979).

Needs of diverse groups have not as yet been addressed by consumer educators. Senior citizens, low income consumers, and women in transition are among those who have been neglected in traditional, consumer-education teachings. These groups may not be served in a traditional classroom setting. Materials and programs to meet the needs of these special groups are still to be developed (Monsma & Bannister, 1979).

Finally, consideration should be given to the recommendations stated by Wilhelms in the publication Consumer Education Project: Final Report, (1979). As indicated previously, a major recommendation was that consumer education remain a program of breadth. Programs must reach out beyond any one field. Cooperative effort in and among disciplines must occur. So that programs will not get "lost in the shuffle", there should be a designated person in charge of consumer education in each state. That person could help coordinate efforts and insure that competencies were taught and materials were presented in an organized and sequential manner. No one course can complete the task of educating consumers. All areas working together can enrich the program and reinforce concepts presented.
None of the authors reviewed suggested a single pattern of consumer education. Individual states must assess needs and resources and develop programs to meet the needs and objectives for their citizens.

**Teacher Certification and Preparation**

In order for effective consumer education to become a reality, teachers must be prepared in methodology and content. Wilhelms (1979) stated "The problem of appropriate teacher education is scarcely being touched (p. 1)." Wilhelms' survey reported that seven states and territories have specific state certification requirements for the teaching of consumer education. Practically every state, however, had a consumer education requirement as part of their home economics certification.

Few studies of teacher certification and preparation in consumer education were evident in the literature reviewed. Three studies reviewed were conducted in Michigan. The first study conducted by Glen (1979) was to determine the emphasis placed on selected aspects of consumer education by professors of consumer education teachers. The study revealed that professors placed the greatest emphasis on effects and overuse of credit. In the area of consumer education content, greatest emphasis was placed on instructional procedures and the least emphasis was placed on legislation.

Studies conducted by Gunther (1978) and Thelen (1978) were primarily workshops for preservice and inservice training for teachers. Gunther's workshop explored improvement of the training of undergraduate
and graduate education majors as well as inservice training of teachers in the areas of personal and family finance. Thelen produced a learning module for secondary, consumer education teachers in the area of life insurance. The module contained methods of conveying the content to students, a pretest, and a posttest. Thelen's module was the first in a series of three to be produced for teachers.

Lofgren and Suzuki (1979) developed and validated an instrument to measure teacher competency in consumer education. The instrument was administered to teachers in Oregon to compare the consumer education competency of teachers from varying subject matter backgrounds. Results of the study indicated a need for improved teacher preparation. Less than eight percent of the teachers answered 80 percent of the items correctly and none of those surveyed answered at least 90 percent correctly. There was no significant difference among scores of teachers in home economics, business education, social studies, and mathematics. While the scores of those tested in the 1979 study were not encouraging, future scores might improve. Alexander (1979) reported that as of January 1, 1980, all teachers certified after that date would be required to have received instruction in consumer education.

Garman (1979) indicated that completion of consumer education related courses resulted in a higher level of comprehension of cognitive consumer education concepts. The objective of Garman's study was to conduct a nationwide assessment of the consumer education literacy of prospective consumer education teachers using the Test of Consumer Competencies. Results of the testing produced a rate of achievement slightly less than 60 percent. Scores did not indicate
a high level of comprehension of consumer education concepts. Prospective teachers majoring in social studies, history or geography, science, and home economics scored higher than individuals in other areas. As indicated previously, a high level of comprehension was directly related to the completion of one or more consumer education related courses.

In order to improve the quality of teacher preparation, states need to take the initiative in increased requirements for certification. By requiring a course in consumer economics for all prospective teachers, states can be better assured that those teaching consumer education will have had at least minimal exposure to the subject. Alabama is the only state with a requirement in economics for all teachers. The requirement is that all teachers have a one-semester course with emphasis on the free enterprise system and consumer economics. Teachers currently certified must be involved in a program of professional development emphasizing economics.

Teacher preparation programs should cover the basic body of knowledge with which teachers need to be familiar. Suggestions are not for the standardization of teacher training, but for formalization of the procedure. Many teachers have been asked to teach consumer education with little or no formal training in the field (Monsma & Bannister, 1979).

Clark and Barton (1981) found that in the 1960s, less than one half of those who were teaching economics had ever had a college-level course in the subject. By the time the National Survey was conducted in 1981, over 80 percent of the teachers indicated that they had had
some economics training. The Survey also indicated that most teachers would like to have more training. Courses which focus on how to teach economics were preferred by junior high school teachers while senior high school teachers wanted more education in the subject matter of economics.

Requiring consumer education for certification would insure that teachers had at least basic knowledge in the field. To be truly multidisciplinary consumer education must be integrated into all subject areas. Successful integration will result when teachers are better prepared for their task.

Studies Related to Competencies of Students

Wilhelms (1979) reported that few states had conducted organized studies of consumer competencies. Studies were either conducted before instruction to determine what instructional programs were most useful or after the completion of a course. Those conducted before instruction are referred to as needs assessments and can be diagnostic in order to determine the specific needs of instruction. Postassessment studies are used to determine the effectiveness of programs and improvements needed. Both types of assessment can be invaluable in determining curricula needs of consumer education programs.

Studies reviewed began with an assessment of four-year-olds. Turner and Brandt (1978) assessed consumer skills of four-year-olds and fourth graders. Results of the study have implications for changes in methodology of consumer-education instruction. Results indicated that "(a) children learn consumer skills by being given
opportunities to participate in consumer decision-making and sharing family responsibilities, (b) too little or excessive time spent in market search lessened the chance of obtaining a best buy, and (c) although children can and do learn to be consumers early, some skills depend upon maturation and use of education (p. 266)."

Hansen (1980) determined economic knowledge of third-grade children and the effects of background experience on that knowledge. Two instruments were administered orally to the children and results indicated that for males and females the most strongly correlated variables were I.Q. and economic knowledge (p<.05). Males who indicated high economic knowledge had high I.Q.'s prior economic experiences, and fathers of high socioeconomic status. High I.Q. scores accounted for high economic test scores in females, indicating that I.Q. was clearly the dominant factor associated with greater economic knowledge. Prior economic experiences, parental background, and status enhanced economic knowledge for males, but not for females.

Several studies reviewed dealt with consumer competencies of secondary-school students. Bennett (1969) conducted a study to determine the role of economics on the high school level. Bennett's findings supported the premise that a knowledge of the economic system by high school graduates was critical to the existence of that system. A lack of economic knowledge and an understanding of the United States economy was exhibited by students surveyed. Recommendations were that a course in economics should be required for graduation and that the Federal government should initiate a national evaluation of economic literacy.
Stanley (1976) developed the Test of Consumer Competencies which was administered to 7,683 students in Illinois. The test consisted of an A and B form, each containing 55 multiple-choice questions. Students who had completed a course in consumer education had a mean score on form A of 26.012 with a reliability of .795. Students who had not completed a course in consumer education had a mean score of 22.636 with a reliability of .747. On form B, students who had completed a course in consumer education had a mean score of 26.636 with a reliability of .858. For students who had not completed a course in consumer education, the mean score was 22.031 with a reliability of .687. Students who had completed a course in consumer education scored higher on both forms of the test than did students who had not completed a course in consumer education. Stanley recommended that the instrument be used as a pretest/posttest to measure students' cognitive gain in consumer education courses.

Cogle (1977) assessed the effects of the consumer education program in Florida. A questionnaire was developed and administered to 1567 high school students enrolled in a semester consumer education course in the secondary home economics program. Cogle learned that home economics teachers emphasized the cognitive, affective, and psychomotor domains with the greatest emphasis on cognitive development and the least emphasis on psychomotor. Additionally, students who had taken the course had higher mean test scores than those who had not completed the course.

Maupin (1978) conducted a study to analyze consumer competencies of twelfth-grade students and to determine the relationship of demo-
graphic variables on the development of competencies. Unlike Hansen's study completed in 1980, Maupin found that twelfth-grade males and females performed equivalently on the Consumer Cognitive Development Test. Performance was related to socioeconomic status. The higher the socioeconomic status, the higher the score. An additional finding was that performance was directly related to money management experience. Students who had more money management experience had higher total test scores.

Langrehr (1979) studied competencies of students in Illinois and Alabama. Langrehr's findings indicated that courses consisting basically of principles of economics did not improve student's consumer-education competencies. Consumer education competencies can be improved, however, by enrolling students in consumer education classes.

Crawford (1980) surveyed vocational home economics students in Iowa. The Consumer Education Inventory was developed to assess consumer knowledge, attitude, and intent upon graduation. Indications were that programs with consumer education emphasis had an impact on students, with the major impact identified as preparation for the future. Crawford found no differences between homemaking and nonhomemaking students on the knowledge component. Selected differences were noted in attitude, intent, and behavior. Differences were found, generally, to be in favor of the homemaking students.

Davis (1977) conducted the first of several studies to be discussed which involved students after graduation from high school. Davis studied the strengths and weaknesses of consumer competencies of Kentucky high school graduates. No significant differences were indicated
in the consumer competencies of the various groups analyzed. Differences were noted among the various groups analyzed in the content areas. Strengths were found to be in the areas of money management, housing, and the individual in the market. The weakest areas were food, taxes, and savings. Males scored significantly higher than females in the areas of consumer credit and transportation while females scored significantly higher in the areas of clothing and health services. The relatively low mean scored for all areas indicated the need for more emphasis in teaching consumer competencies.

Hawkins (1977) conducted a study of consumer education concepts of high school graduates. Students were polled two years after graduation to determine whether or not those who had completed a consumer education course as seniors differed in their ability to answer consumer-related questions correctly from those who had not completed a course. Hawkins' questionnaire contained 18 questions and only one, "What affected your choice of a savings institution?" revealed a significant difference between the two groups. The conclusion of the study was that consumer education had little or no effect upon the behavior of those completing the questionnaire.

Peters' study (1980) was conducted to measure the economic understanding of undergraduate seniors in secondary education teacher preparation. Peters' premise was that teacher education should provide a personal consumer education background enabling teachers to implement consumer economics within their curricula in compliance with the Free Enterprise and Consumer Education Act. Form A of the Test of Consumer Competencies was the instrument used for collecting
data. Findings indicated no difference in scores by sex or employment. Significant differences were noted in grade point average, age, and prior enrollment in marketing and economics courses.

Baer (1980) indicated a concern expressed by the Joint Council on Economic Education as to the level of instruction in introductory courses in community colleges in Maryland. The study described (1) the level of economic theory community college instructors expected students to master, (2) the level of cognitive skills instructors expected students to acquire, and (3) background, teaching experience and methods of instruction, and the correlation of these factors with the level of economic theory expected of their students. A questionnaire was developed to measure the levels of economic theory and cognitive skills instructors expected of students.

Findings of the study were that most instructors did not have a formal list of specific instructional objectives. The majority of instructors were teaching the minimal level of theory considered essential for a Principles of Economics course and a large majority were omitting essential objectives. A minority of teachers were teaching essential objectives and advanced theory. Instructors with the largest number of classes were likely to require students to master fewer consumer education concepts. Implications were that improvement was needed in the methodology employed in teaching consumer education in Maryland's community colleges.

The Education Commission of the States (1978) developed a guide to assist interested persons and agencies in developing and assessing consumer skills. A compilation of 175 items were made available for
use. The test items covered diverse topics and could be used in any combination by those administering the test. Data were available from a nationwide assessment for comparison with local assessments. The Commission supplies answer keys, timing information, and instructions for test administration.

Studies of adult competencies were not as numerous as were those involving children and college students. In 1979, California compiled an Adult Competency Survey. Five categories studied were cultural competencies, economic competencies, health and safety competencies, interpersonal competencies, and socio-political competencies. Performance levels on economic competencies were the lowest among the elderly, young adults under the age of 20, the unemployed, and those with non-English-speaking home backgrounds. Technical topics such as insurance and credit were the least understood. As indicated previously, target groups largely ignored by traditional consumer education must be served in the future.

In an additional study, conducted by Tabel in 1979, a test was constructed to measure adult consumer knowledge. The test was developed not to measure achievement, but rather to identify strengths and weaknesses in consumer education skills. It was recommended that the test be used in measuring skills of persons enrolled in adult basic education classes.

Curriculum Guides

In years past, curriculum guides in consumer education were limited both in number and substance. Emphasis placed on consumer
education in recent years has resulted in guides being produced in large numbers. Guides reviewed are merely representative of those available and only begin to indicate the numbers which are available.

Watson (1980) published a guide, Creative Resources for Teaching General Business, Consumer Education, and Private Enterprise which could be invaluable as a resource for consumer economics teachers. Three chapters that would be of great value to teachers in all disciplines dealt with teacher-learning approaches, special needs students, and student competencies, course content, and resource materials. Information of particular interest to consumer education teachers included the role of the consumer in regard to banking, credit, insurance, and savings. The private enterprise system and government, business, and human resources were described. Watson concluded with techniques for evaluating student progress and achievement.

An additional supplementary aid for teachers was the Consumer's Resource Handbook (1979). This is a what-to-do, where-to-go manual for resolving consumer problems. Section I described how consumers can handle complaints, Section II listed Federal information and services for the consumer, and Section III gave the same information concerning state and local agencies. Federal Information Centers were listed with addresses and phone numbers. The handbook gave complete information for use by the consumer to insure protection of their individual rights.

Waldrop (1972) published two guides for consumer and homemaking education in Kentucky, the first for junior high school and the second for senior high school. The first guide acquainted the student with
the concepts of decision making and the influences on consumer behavior. Students were instructed in their role as individual consumers first and then in the larger roles as members of homes and family. The senior high school guide outlined a course in home management. Topics introduced in the junior high school were covered in depth. Concepts included in the guide were assessment of resource potential, financial security, consumer rights and legislation, consumer protection agencies, and career opportunities in management-consumer education. Specific teaching strategies were supported by a reference and resource list and evaluation devices.

Kentucky's State Department of Education in 1976 revised Guidelines for Consumer Education in Kentucky. The publication was designed to assist school systems in the implementation of consumer education programs. Pupil goals were stated along with specific and general guidelines for the K-12 curriculum. Inservice education guidelines were suggested and curriculum concepts and activities were listed. Emphasis was given to the role of the consumer as a member of society to enable the individual consumer to understand the effects of his decisions on families, communities, and the nation. While consumer rights have been discussed in detail in most publications, Kentucky's guide emphasized the responsibilities of the consumer. Among the responsibilities listed were an understanding of the consumer decision-making process, participation in activities of voluntary consumer organizations, and the responsibility of being fair and behaving morally as a customer. The guide concluded with a list of resources and bibliographic information.
Oklahoma's State Department of Vocational and Technical Education (1975) produced a scope and sequence for vocational home economics in Oklahoma. Included in the guide was a section on consumer education. The in-depth curriculum included the role of the individual consumer, the consumer in the marketplace, taxes and the consumer, and the law.

Sawatsky (1978) developed a guide for use in vocational home economics in Oklahoma. A section of the guide was devoted to consumerism, which included money management, banking, credit, and buying practices.

Monsma (1977) and Kachaturoff (1978) produced guides in Michigan. Monsma's guide was specifically for identification and illustration of specified illegal practices. The guide explained procedures which a consumer could follow to enforce provisions of the law. Kachaturoff's manual provided guidelines for an inservice program for teachers. The manual included four simulation experiences which teachers could use with students.

The Allegheny Intermediate Unit developed two guides for the consumer. The first in 1977, entitled The Everyday Consumer was an interdisciplinary approach to consumer education. The manual contained activities and resources for infusing consumer education into courses in grades 9-12. Activities were based on four concepts: basic economics of the marketplace, legal rights and consumer laws, major purchases of products and services, and special problems such as advertising. Competencies, activities, resources, and performance indicators were listed. The 1978 guide covered basically the same concepts but was developed for grades 5-8.
A guide developed by the Philadelphia School District (1979) was unique in that workshops and inservice programs for teachers and parents of elementary and secondary students were described. Scope and sequence materials were included for initiating consumer education at grades K-6, 7-8, and 9-12. Some of the individual guides were also in Spanish.

Johnson (1978) and Myers (1978) developed guides for Nebraska's junior high schools. Johnson's guide provided nine instructional units for junior high studies in economics. Each unit comprised a one-week course. Five lessons were outlined in each unit and each lesson provided a list of materials needed as well as teaching strategies. Myers' booklet listed concepts in sequence from the simplest to the most complex. Concepts were designed to be taught in order and could be used throughout a social studies program or in a self-contained, one-semester course. Myers included a list of resources.

Crow and Martin (1978) developed a guide for Consumer Education I and II to be used in the San Diego Unified School District. Course objectives, content analysis, and content generalizations were presented. Course objectives were aimed at consumer education, cultural awareness, human potential (including sex stereotyping), and career education. Included in the plan was a grid to show quickly how each objective related to the four emphases.

Hansen (1977), under the auspices of the Joint Council of Economic Education, edited Master Curriculum Guide in Economics for the Nation's Schools, Part I. The purpose was to develop a concise statement of basic concepts for teaching economics below the college level. Objectives were listed and the elements of economic understanding
were discussed. A selected working body of knowledge and skills from
the economics discipline were identified. Standards of achievement
were not identified, but rather an optimum framework, one within the
grasp of most if not all citizens. Specific examples of economic
situations were cited and strategies for dealing with them were dis-
cussed.

Niss (1979) produced the Master Curriculum Guide in Economics for
the Nation's Schools, Part II. The document presented strategies for
teaching economic concepts. Eighteen concept-based, detailed class-
room lessons were provided which illustrated ways economic ideas could
be taught at various levels of difficulty. Each lesson included time
required, recommended grade level, concept, instructional objectives,
materials needed, teaching procedures, evaluation, and student hand-
out sheets. A glossary, bibliography, supplementary materials, and
sources of information concluded the document.

Johnston and Greenspan (1977) produced an annotated bibliography
of 295 selected instructional references, resources, and teaching aids
for consumer education. Included were a variety of printed and
nonprinted materials. Priority was given to materials copyrighted
in 1975 or later. Included were prices, ordering information, a brief
description, and grade level, when possible.

Johnston's (1971) monograph, Consumer Education: An Interdiscip-
larinary Approach, defined consumer education as an interdisciplinary
educational program. As an ongoing process, consumer education must
be considered as an integral part of the formal educational program
from nursery school through adult education. In order to be effective,
it cannot be limited to one grade level or one phase of the schooling process. It was recognized that the scope of consumer education was so broad that it could not be adequately covered in one or two disciplines. Regardless of the discipline in which it was taught, to be effective and successful, consumer education must be alive and relevant for the students. In conclusion, Johnston listed steps to be followed in curriculum development.

The final guide reviewed was produced by the President's Committee on Consumer Interests in 1970. This publication was one of the first comprehensive guides published with information and suggestions applicable nationwide. The guide, *Suggested Guidelines for Consumer Education Grades K-12*, discussed the need for consumer education, methods of implementation and suggestions for building the consumer education curriculum. The Committee identified roles of various individuals in consumer education including administrators, teachers, parents, students, governmental, and business personnel.

**Recommendations from Research**

Many of the documents and publications suggested changes which have noted previously. Some additional recommendations will be discussed in this section.

Remy in 1978 and Bannister and Monsma in 1980, cited the importance of training consumers to become consumer-citizens. This change in direction would facilitate a reversal in the trend toward excessive specialization in social education. Acting as a consumer-citizen would enable consumers to act not only on their own behalf, but
for the welfare of consumers as a group.

Bannister and Monisma stated that no part of consumer education should become static. Consumer education factors must be dynamic. Twelve contemporary factors to be incorporated in programs of the future should be inflationary pressures, attitudes toward economic growth, economic interdependence, economic concentration, growth and evaluation of the public sector, growth in the consumption of services, income distribution patterns, changes in the role of men and women, interest in simple lifestyles, changes in the work force, importance of organized political activity, and the importance of future trends.

Wilhelms, in his 1979 Final Report, compiled an encompassing list of recommendations. The first recommendations were for the Education Commission of the States. The Commission should once again publicly reaffirm its positive commitment to consumer education, seek funds, and mobilize efforts to take strong leadership in the field. National leadership is necessary in order to build a program for more adequate teacher preparation and a rich conceptualization of consumer education. Effectiveness of SEA and LEA models of organization should be studied.

The Commission recommended that state legislatures support education for consumers in school and at the adult level. Funding for consumer education programs should be provided. SEA's which had not voiced a commitment to consumer education should do so. The commitment should be accompanied by a plan for initiating, promoting, disseminating, and improving a statewide program of consumer education. SEA's and LEA's should make full use of advisory committees.
While the Commission did not call for either a special course in consumer education or integration within all courses, some combination of the two was probably better. Integration, however, calls for intensive, broad-based planning and allocation of teaching responsibilities.

In the area of teacher preparation, SEA's and LEA's should work closely with colleges and universities to build programs of teacher preparation. The supply of prepared teachers should include those who teach consumer education as a specialty, teachers who will integrate consumer education into their programs, and teachers who could serve as resource persons. Wilhelms' recommendations were comprehensive and in some cases difficult to implement, but if states were sincere in their stated commitment to consumer education, an attempt would be made to implement changes suggested. If all the recommendations were accepted, the future of effective consumer education for all citizens should be assured.

A review of the literature indicated that interpretation of consumer education legislation has varied widely from state to state. Implementation of the legislation has resulted in varied programs. A single program would not be appropriate for all states and locales; individual and regional differences must be noted. Goals and objectives should be emphasized, however, in order to insure a uniformity of basic information. Arming students with information concerning their rights and responsibilities as consumers should enable them to achieve a more satisfactory future role as consumer-citizens.
CHAPTER III

Study Design

The study was designed to compare the competencies attained by students who had received instruction in Home Economics 7115, Consumer Education, with those attained by students who had not received such instruction. Home Economics 7115, Consumer Education, was described in the North Carolina Program of Studies as an elective, semester course. Data obtained in the study were compared by grade level, sex, age, and socioeconomic level. A comparison of enrollment figures for the fall of 1979, 1980, and 1981, indicated that one district had a drastic decline in enrollment in Home Economics 7115, Consumer Education. The study was designed to identify some of the reasons for declining enrollment in that district.

Population and Sample

Teachers attending the Vocational Summer Conference held in Greensboro, North Carolina, August, 1980, were surveyed to determine the number of classes to be taught in Home Economics 7115, Consumer Education, during Spring Semester, 1981 (Appendix A). Results of that survey indicated that the number of classes to be taught varied widely from district to district.

Based on the information obtained from the survey, the decision was made to use Districts V and VI as the accessible population. District III, which included Wake County, was not considered because Home Econo-
mics 7115, Consumer Education was a required course in that county and not all the classes were taught by home economists. In the fall of 1981, the decision was made to conduct the study in District VI only.

District V is comprised of 12 counties: Alamance, Caswell, Chatham, Davidson, Forsyth, Guilford, Orange, Rowan, Person, Randolph, Rockingham, and Stokes. District VI is comprised of Mecklenburg, Lincoln, Gaston, Cabarrus, Stanly, Union, and Anson counties. Information obtained from mail and telephone surveys combined to identify those teachers within the districts who would be teaching Home Economics 7115, Consumer Education, and an additional semester, home economics course during the fall of 1981 (Appendix A). Additional information requested was the number of sections of Consumer Education which would be taught and the approximate number of students who would be enrolled. The answers given were only estimated by the teachers.

In the spring of each year, vocational teachers are required to submit projected enrollment figures for each course to be taught in the fall semester of that year. Those projections are sent to the Regional Vocational Director who in turn submits the regional information to the State Department of Public Instruction. A copy of this report was obtained from Districts V and VI in order to make the final decision as to the accessible population for the study.

Exact enrollment figures were not available until school opened in the fall. Obtaining responses from schools as to enrollment and subsequently gaining permission to conduct the study would have resulted in the pretest being administered too far into the semester for a valid pre- and posttest comparison. The decision was made, therefore,
to proceed with classes identified in the projections from the Regional Directors of Vocational Education to insure the administration of the pretest as early as possible.

Projection figures from District V indicated that three schools would be offering Home Economics 7115, Consumer Education, during the fall of 1981. Total projected enrollment was 205 students. The three schools were contacted, the study to be conducted was outlined, and permission to administer the questionnaire was requested (Appendix A). All three schools refused to participate in the study. One of the schools was described by the Local Director for Vocational Education as a special school for the handicapped. The director stated that standardized tests of the type planned for the study were too frustrating for the students enrolled there. Refusal by the schools in District V to participate in the study resulted in the final decision to conduct the study in District VI.

Information from District VI listed five schools offering Home Economics 7115, Consumer Education, with a total of 190 students. Follow up correspondence with teachers in those five schools showed a change in actual enrollment as opposed to projected enrollment. Three of the schools reported that actual enrollment was less than predicted and the class would not be taught during the fall semester. The remaining two schools agreed to participate in the study and had a combined enrollment in September, 1981, of 48 students in Home Economics 7115, Consumer Education.
Instrumentation

The instrument selected for use in the study was the Test of Understanding in Personal Economics developed by the Joint Council on Economic Education (Appendix B). The test consisted of 50 multiple-choice statements selected by consultants, classroom teachers, economists, and specialists in teaching. In the final form, the test was administered in various states to high school students who had not been taught personal economics. Schools selected varied according to size and socioeconomic levels. Students tested were in the ninth and twelfth grades.

The instrument was designed to be administered in a class period of approximately 45 minutes. The design was as a power test rather than a speed test. The probability was that most students would be able to complete the test in one class period.

Test reliability, cited by the Joint Council on Economic Education, was determined through the use of Kuder-Richardson Formula 20. Stated reliability for the total group was .84. The mean for the total group was 21.2 with a standard deviation of 8.1. Standard error of the measurement \( SE_m \) for the total group was 3.2.

The reading level of the Test of Understanding in Personal Economics was computed through the use of the Gunning Fog Index and the SMOG Index. According to the Gunning Fog Index, (Forgan & Mangum, 1976) the reading level of the instrument was 10.8 years. The SMOG Index, (Hoover, 1976) indicated that the reading level was 10.0 years. Since the grade level of students tested was grades 10 through 12,
the Test of Understanding in Personal Economics was determined to be within the reading range of the majority of the students.

The Test of Understanding in Personal Economics was not divided into subject sections. However, before the decision was made to use the test for this study, questions were compared to the list of competencies for Consumer Education developed by the Home Economics Education Staff of the North Carolina State Department of Public Instruction in Raleigh. The list of 18 competencies and subcompetencies is included in the Appendix C. Comparing competencies with test items indicated that all except three of the questions related in some way to stated competencies. The three items not related to the list of competencies dealt with taxes, a concept not included in the state list of competencies. Comparison indicated two competency areas included in Home Economics 7115, Consumer Education, were not addressed by the questions. Those broad areas were consumer rights and responsibilities and careers related to consumer education. Some of the questions were related to more than one competency area.

The broad competency categories for Home Economics 7115, Consumer Education, and the number of test questions related to each were as follows:

A. Our Economic System

Thirty questions related in some way to aspects of the economic system. Included were components of the United States Economic system, interacting roles of consumer, business and government, and decision-making processes used by consumers.
B. **Consumer Planning and Decision Making**

Three questions were related to this category which pertained to the assessment of the effects of using resources on individual, familial, and societal needs.

C. **Management of Homemaking Responsibilities**

Five questions related to the areas of homemaking responsibilities. Management of resources, management practices, and planning for individual and family goals were the specific areas indicated.

D. **Financial Protection for the Consumer**

Five questions related to types of financial services available, risks of saving and investment plans, and types of insurance.

E. **Use of Consumer Credit**

Three questions related to the broad topic of consumer credit. Sources, costs and uses of credit, and the effect of credit ratings on consumers were topics relating to consumer credit.

F. **Consumer Rights and Responsibilities**

None of the questions were perceived as relating to this area.

G. **Consumers in the Marketplace**

Two questions related to factors affecting consumers. Among items in this category were influences on consumer choices, shopping practices, influences of advertising and merchandising, and effects of deceptive practices on the
consumer.

ii. **Consumer Services Available from Institutions and Agencies**

Two questions related to consumer services available for consumer protection and information.

I. **Opportunities for a Career**

None of the questions pertained to this area.

The format of the test used multiple-choice items in the incomplete and complete statement form with a four-point response pattern. There was only one correct ending or answer for each statement and students were to record their choice on an optical scan sheet by darkening the appropriate section with a number-two pencil.

Demographic information was also obtained from students. Demographic information requested included age, sex, grade level, and socio-economic status. Participants were requested to sign a consent form indicating their awareness of the purpose of the study and willingness to participate (Appendix A).

A checklist was developed in order to determine behavioral changes which had occurred during the semester (Appendix B). Students in the experimental group were asked to indicate whether certain behaviors were present before the course, occurred during the course, or had never occurred. Participants were requested to list two of the most important concepts learned during the course and one concept they would have liked to learn but did not.
Data Collection

The following data were collected for each subject:

1. Scores on the Test of Understanding in Personal Economics developed by the Joint Council on Economic Education in 1971
2. Demographic information including sex, age, grade level, and socioeconomic status
3. A checklist for determining behavioral changes (experimental group only).

The Test of Understanding in Personal Economics was administered during the first weeks of the semester, in the fall of 1981, to students enrolled in Home Economics 7115, Consumer Education, and to students enrolled in another semester home economics class in the same school. The Test of Understanding in Personal Economics was readministered to both the control and the experimental group to determine changes in the level of competency attainment for those students who received instruction in consumer education and those who did not. The second administration of the test was in January, 1982.

During the first week of September, 1981, the two teachers participating in the study were sent packages of materials for the pretest. Each packet included optical scan sheets, consent forms, questionnaires for each student, and detailed instructions for the teachers (Appendix A). Participating teachers had been apprised of the design of the study and both understood the pre- and posttest format. Students were instructed to sign the consent form if they agreed to participate. The optical scan sheets were gridded to obtain the needed
demographic information. Students marked their name, sex, birthdate, and grade in school. Consent forms and demographic data were completed on the day prior to the actual test administration to insure students the full time allotted for completing the test.

On the day the test was actually administered, participating teachers made certain each student had a number-two pencil. Answer sheets were distributed and, finally, test booklets were passed out. Students were instructed to leave test booklets closed and face up on the desk. Students then opened the booklet to page one and were instructed to read directions to themselves as the teacher read them aloud. Students were told that they were not expected to know all the answers, but they were to answer all questions. Markings were to be made in the spaces provided and stray marks were to be erased.

Following those instructions, students were instructed to complete the sample items. Upon completion of the sample items, students began the actual test. At the end of the class period, the teachers collected the booklets and answer sheets.

Consent forms, answer sheets, and test booklets were returned to the researcher, counted, and compared to the list sent to participating teachers originally. Answer sheets were checked for proper markings and completion of demographic information. Teachers were contacted for missing information and responses were recorded. The researcher assigned a code number to each student and subsequently gridded the code number for each group (control or experimental), school, and individual students. Whether or not students received free lunch at school was the final information gridded on the optical scan sheets.
During the first week of January, 1982, participating teachers were again contacted and the administration of the posttest was discussed. The following week, packets of materials were sent to the teachers so that the test could be administered the final week of the semester. Packets of materials for each teacher included a letter of instruction, an inventory of package contents, optical scan sheets, test booklets, and a student survey to be used as a determinant of behavioral changes resulting from the instruction (Appendix A).

Three differences existed in the pretest and posttest materials. The consent forms were not reissued because they were kept on file from the pretest. Gridding for name, birthdate, sex, grade in school, group number, student number, and the information for free lunch was completed before the sheets were sent to the teachers. Finally, the behavioral checklist was included for the experimental group only.

Instructions to the teachers differed slightly from the pretest instructions. Teachers did not have to have students grid the optical scan sheets with the demographic information. Students in the experimental group were to complete the behavioral checklist prior to the Test of Understanding in Personal Economics. Other instructions were the same as the pretest instructions. Upon completion of the posttest, all materials were returned to the researcher. Teachers were asked to indicate the reasons students took the pretest, but not the posttest.

Enrollment figures from the State Department of Public Instruction indicated that only one educational district had a drastic decrease in enrollment in Home Economics 7115, Consumer Education,
from 1979 to 1981. Teachers in that district who taught classes in Home Economics 7115, Consumer Education, in 1979, were contacted in an attempt to determine reasons for enrollment decline. A letter describing the study and the information desired was sent to each teacher along with a stamped, self-addressed envelope, and a checklist (Appendix A). As responses were returned, they were tallied and analyzed descriptively.

Data Analysis

As the Test of Understanding in Personal Economics was returned, the data were collected and coded for statistical computation. The study was a nonrandomized control group, pretest-posttest design. According to Campbell and Stanley (1963), the design has been used widely in educational research. An experimental group and a control group are each given a pretest and a posttest. The two groups constitute naturally assembled collectives, in this case the classroom, and are similar. The similarity is not extensive enough, however, to dispense with the pretest.

Nonrandomized Control Group Pretest-Posttest Design

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>$T_1$</td>
<td>X</td>
<td>$T_2$</td>
</tr>
<tr>
<td>Control Group</td>
<td>$T_1$</td>
<td></td>
<td>$T_2$</td>
</tr>
</tbody>
</table>
Chi square and regression, as well as descriptive statistics, were used to analyze the data to determine statistical differences between the experimental and control groups. The $t$-test was used for testing the null hypothesis to determine the effect of instruction on the level of consumer competency attained. The $t$-test was also used to determine whether a significant difference existed between groups on the pretest score. A .05 level of significance was used throughout the study.
CHAPTER IV
ANALYSIS OF FINDINGS

The purpose of this study was to compare the competency level attained by students who had received instruction in consumer education with that of students who had not received the instruction. The four specific objectives were (1) to determine the competency level of students before and after enrolling in Home Economics 7115, Consumer Education; (2) to compare the competency level of students who had instruction in Home Economics 7115, Consumer Education, with that of students who had not had specific instruction; (3) to determine whether a relationship existed among such demographic variables as grade level, sex, age, and socioeconomic status; and (4) to identify some of the reasons for declining enrollment in Home Economics 7115, Consumer Education, in one educational district.

A total of 97 pretests from the control and experimental groups were returned, 51 in the control group and 46 in the experimental group. In the control group, 90.2 percent of the students completed the posttest, while 78.3 percent of the students in the experimental group completed the posttest. Only data from participants who completed both the pretest and the posttest were analyzed. Thus, data were available from a total of 82 students for analysis (Table 1). The results and findings of this study are presented in four parts: description of participants, description of data, statistical analysis of hypotheses, and discussion of findings.
### Table 1

Number and Percentage of Participants by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Number</th>
<th>Pretest Percent</th>
<th>Posttest Number</th>
<th>Posttest Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>51</td>
<td>52.58</td>
<td>46</td>
<td>56.10</td>
</tr>
<tr>
<td>Experimental</td>
<td>46</td>
<td>47.42</td>
<td>36</td>
<td>43.90</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100.00</td>
<td>82</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Description of Participants**

The demographic data from this study described participants according to age, sex, grade in school, and socioeconomic status. Each of these characteristics was examined.

**Age**

The design for this study was not restricted to a specific age grouping as students could elect the home economics courses at different times during their academic program. The instrument, however, was validated for grades 9 through 12 and the assumption was made that the majority of the participants would fall between the ages of 14 and 21 years. The mean age for the control group was 16.27 years while the mean for the experimental group was 16.54 years for the pretest. For the posttest, the means were 16.24 years and 16.31 years respectively (Table 2).
Table 2

Number and Percentages of Participants by Age: Pretest and Posttest

<table>
<thead>
<tr>
<th>Age</th>
<th>Control Pretest</th>
<th>Experimental Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>15</td>
<td>23</td>
<td>45.10</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
<td>13.73</td>
</tr>
<tr>
<td>17</td>
<td>11</td>
<td>21.57</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>7.84</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1.96</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Control Posttest</th>
<th>Experimental Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>43.48</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
<td>15.21</td>
</tr>
<tr>
<td>17</td>
<td>11</td>
<td>23.91</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>8.70</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>8.70</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Sex

Of the students who completed the pretest, 11.76 percent of the control group were male and 88.24 percent were female. For the experimental group, 54.35 percent of the students were male and 45.65 percent were female. For the posttest, 8.7 percent of the respondents in the control group were male and 91.3 percent were female. In the experimental group, 52.78 percent of the respondents were male and
and 47.22 percent were female (Table 3).

Table 3
Number and Percentages of Participants by
Sex: Pretest and Posttest

<table>
<thead>
<tr>
<th>Sex</th>
<th>Control Pretest</th>
<th>Experimental Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>11.76</td>
</tr>
<tr>
<td>Female</td>
<td>45</td>
<td>88.24</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th>Control Posttest</th>
<th>Experimental Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>8.70</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>91.30</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Grade in School

Students who participated in the study were in grades 10-12. Since the course Home Economics 7115, Consumer Education, was not designed for a specific grade level in school, it was assumed that a cross section of grades would be represented (Table 4). The mean grade level for the pretest was 10.80 and 10.82 for the posttest.
Table 4

Number and Percentages of Participants by Grade Level; Pretest and Posttest

<table>
<thead>
<tr>
<th>Grade in School</th>
<th>Control Pretest</th>
<th>Experimental Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>10</td>
<td>27</td>
<td>52.94</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
<td>17.64</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>29.42</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade in School</th>
<th>Control Posttest</th>
<th>Experimental Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>52.17</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
<td>19.57</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>28.26</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Socioeconomic Status

Differentiation by socioeconomic status was based on whether or not students received free lunch at school. Free lunch recipients were determined by salary of guardians and family size. For the study, Level I was designated as students who received free lunch and Level II indicated students who did not receive free lunch (Table 5). For the pretest, 23.53 percent of the control group and 23.91 percent
of the experimental group received free lunch. Posttest percentages of students receiving free lunch were 23.91 percent of the control group and 19.44 percent of the experimental group.

Table 5
Number and Percentages of Participants by Socioeconomic Status, Pretest and Posttest

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>Control Pretest</th>
<th></th>
<th>Experimental Pretest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Level I</td>
<td>12</td>
<td>23.52</td>
<td>11</td>
<td>23.91</td>
</tr>
<tr>
<td>Level II</td>
<td>39</td>
<td>76.47</td>
<td>35</td>
<td>76.09</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.00</td>
<td>46</td>
<td>100.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>Control Posttest</th>
<th></th>
<th>Experimental Posttest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Level I</td>
<td>11</td>
<td>23.91</td>
<td>7</td>
<td>19.44</td>
</tr>
<tr>
<td>Level II</td>
<td>35</td>
<td>76.09</td>
<td>29</td>
<td>80.56</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.00</td>
<td>36</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Description of Data

In order to examine the competency level attained by the control and experimental groups, the percentages of correct responses to each of the 50 items were tabulated for the pretest and posttest (Table 6). Tabulation from the 50 questions revealed that the percentage of
Table 6
Percentage of Students Who Answered Questions Correctly

<table>
<thead>
<tr>
<th>Questions</th>
<th>Pretest Control</th>
<th>Pretest Experimental</th>
<th>Posttest Control</th>
<th>Posttest Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70</td>
<td>58</td>
<td>72</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
<td>71</td>
<td>76</td>
<td>86</td>
</tr>
<tr>
<td>3</td>
<td>49</td>
<td>41</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>08</td>
<td>46</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>33</td>
<td>34</td>
<td>59</td>
<td>52</td>
</tr>
<tr>
<td>6</td>
<td>19</td>
<td>39</td>
<td>68</td>
<td>86</td>
</tr>
<tr>
<td>7</td>
<td>62</td>
<td>52</td>
<td>51</td>
<td>52</td>
</tr>
<tr>
<td>8</td>
<td>49</td>
<td>52</td>
<td>59</td>
<td>86</td>
</tr>
<tr>
<td>9</td>
<td>31</td>
<td>30</td>
<td>38</td>
<td>66</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>58</td>
<td>76</td>
<td>75</td>
</tr>
<tr>
<td>11</td>
<td>05</td>
<td>06</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>17</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>10</td>
<td>68</td>
<td>80</td>
</tr>
<tr>
<td>14</td>
<td>80</td>
<td>78</td>
<td>53</td>
<td>63</td>
</tr>
<tr>
<td>15</td>
<td>21</td>
<td>21</td>
<td>42</td>
<td>38</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>10</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>17</td>
<td>27</td>
<td>26</td>
<td>65</td>
<td>69</td>
</tr>
<tr>
<td>18</td>
<td>49</td>
<td>41</td>
<td>55</td>
<td>61</td>
</tr>
<tr>
<td>19</td>
<td>13</td>
<td>13</td>
<td>61</td>
<td>58</td>
</tr>
<tr>
<td>20</td>
<td>50</td>
<td>41</td>
<td>74</td>
<td>94</td>
</tr>
<tr>
<td>21</td>
<td>25</td>
<td>17</td>
<td>38</td>
<td>69</td>
</tr>
<tr>
<td>22</td>
<td>47</td>
<td>43</td>
<td>68</td>
<td>55</td>
</tr>
<tr>
<td>23</td>
<td>13</td>
<td>23</td>
<td>31</td>
<td>61</td>
</tr>
<tr>
<td>24</td>
<td>29</td>
<td>32</td>
<td>48</td>
<td>47</td>
</tr>
<tr>
<td>25</td>
<td>43</td>
<td>36</td>
<td>31</td>
<td>47</td>
</tr>
<tr>
<td>26</td>
<td>47</td>
<td>47</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>27</td>
<td>39</td>
<td>39</td>
<td>70</td>
<td>86</td>
</tr>
<tr>
<td>28</td>
<td>13</td>
<td>19</td>
<td>29</td>
<td>47</td>
</tr>
<tr>
<td>29</td>
<td>45</td>
<td>39</td>
<td>57</td>
<td>75</td>
</tr>
<tr>
<td>30</td>
<td>49</td>
<td>30</td>
<td>74</td>
<td>77</td>
</tr>
<tr>
<td>31</td>
<td>62</td>
<td>45</td>
<td>48</td>
<td>88</td>
</tr>
<tr>
<td>32</td>
<td>76</td>
<td>56</td>
<td>51</td>
<td>50</td>
</tr>
<tr>
<td>33</td>
<td>47</td>
<td>30</td>
<td>38</td>
<td>61</td>
</tr>
<tr>
<td>34</td>
<td>72</td>
<td>52</td>
<td>63</td>
<td>80</td>
</tr>
<tr>
<td>35</td>
<td>21</td>
<td>28</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>36</td>
<td>43</td>
<td>34</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>37</td>
<td>23</td>
<td>19</td>
<td>53</td>
<td>69</td>
</tr>
<tr>
<td>38</td>
<td>23</td>
<td>17</td>
<td>72</td>
<td>55</td>
</tr>
<tr>
<td>39</td>
<td>29</td>
<td>26</td>
<td>48</td>
<td>69</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
<td>34</td>
<td>25</td>
<td>66</td>
</tr>
</tbody>
</table>
students in the control group who answered the questions correctly increased for 34 of the 50 items. In the experimental group, the percentage of students who answered the questions correctly increased for 46 of the 50 items.

On the pretest, four questions were answered correctly by 10 percent or less of the experimental group. Those questions related to wages of United States employees in relation to other countries, what constitutes "real wages", where one should borrow money, and the causes of the United States federal debt. For the control group, only one question was answered correctly by less than 10 percent of the group. That question, also answered correctly by fewer than 10 percent of the experimental group, related to the meaning of "real wages". The question answered correctly on the pretest by the largest percentage of both the control and experimental groups related to the advisability of having a portion of one's "savings" readily available. On the post-

<table>
<thead>
<tr>
<th>Questions</th>
<th>Pretest Control</th>
<th>Pretest Experimental</th>
<th>Posttest Control</th>
<th>Posttest Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>11</td>
<td>17</td>
<td>53</td>
<td>75</td>
</tr>
<tr>
<td>42</td>
<td>62</td>
<td>43</td>
<td>59</td>
<td>69</td>
</tr>
<tr>
<td>43</td>
<td>33</td>
<td>23</td>
<td>48</td>
<td>69</td>
</tr>
<tr>
<td>44</td>
<td>52</td>
<td>43</td>
<td>55</td>
<td>83</td>
</tr>
<tr>
<td>45</td>
<td>39</td>
<td>28</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>46</td>
<td>15</td>
<td>17</td>
<td>46</td>
<td>77</td>
</tr>
<tr>
<td>47</td>
<td>21</td>
<td>19</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>48</td>
<td>45</td>
<td>32</td>
<td>44</td>
<td>63</td>
</tr>
<tr>
<td>49</td>
<td>41</td>
<td>26</td>
<td>65</td>
<td>75</td>
</tr>
<tr>
<td>50</td>
<td>19</td>
<td>26</td>
<td>55</td>
<td>88</td>
</tr>
</tbody>
</table>
test, however, both groups scored considerably lower on the same item. For the pretest, a total of 12 questions were answered correctly by 50 percent or more of the control group and for the experimental group, eight questions were answered correctly by 50 percent or more of the participants.

Analysis of the posttest data indicated that none of the items were answered correctly by fewer than 10 percent of either group. For the control group, 31 items were answered correctly by more than 50 percent of the group and two items were answered correctly by more than 75 percent of the group. Thirty-six of the 50 items were answered correctly by 50 percent or more of the experimental group and 19 were answered correctly by 75 percent or more of the group. One question, "In a free market, what factor is most important in determining which goods and services will be produced and how much they will cost?" was answered correctly by 100 percent of the experimental group.

In order to determine whether a significant difference existed between the competency levels of the two groups at the beginning of the study, a t-test was calculated. For the 51 students in the control group, the pretest mean was 19.098. In the experimental group, the mean for the 46 students was 16.695. At the .05 level of significance, the t value was -2.008 with 95 degrees of freedom. The reported p-value was .025. Results of the t-test indicated that a significant difference did not exist between the competency level of the two groups at the beginning of the study.
Mean Gain Score

Each of the demographic variables was examined statistically to determine whether significant differences existed with the competency level of students in the experimental group. Analysis was conducted utilizing the posttest score of participants. An illustration of mean gain score by participants categorized by variables, creates a visual comparison. To obtain the mean gain score by group, the pretest score was subtracted from the posttest score (Appendix D).

Male participants in the study had a mean gain score of 13.8. For females, the mean gain score was 17.4 (Figure 1).
When the variable age was examined, mean gain scores were as follows: fifteen-year-olds, 15.5; sixteen-year-olds, 17.3; seventeen-year-olds, 15.3; eighteen-year-olds, 15.6; and nineteen-year-olds, 12.0 (Figure 2). At the administration of the pretest, one twenty-year-old completed the test. When the posttest was administered, the teacher reported that the twenty-year-old had dropped out of school. Therefore, the age bracket of twenty was not considered in the statistical analysis.

Figure 2
Mean Gain Score by Age
An examination of the mean gain score by grade level, provides a visual support for the statistical findings reported in the discussion of the hypotheses. Tenth graders in the study had a mean gain score of 15.6, while for eleventh graders, the score was 15.3. Finally, twelfth graders increased their mean gain by 15.5 (Figure 3).

![Mean Gain Score by Grade Level](image)
Mean gain scores by socioeconomic status were as follows:
Level I, 14.0 and Level II, 15.9 (Figure 4).

Figure 4
Mean Gain Score by Socioeconomic Status
Behavioral Checklist

By comparing pretest and posttest scores for the groups, assessment of cognitive gains was possible. In order to assess behavioral changes which occurred, a checklist was developed for students in the experimental group. Students were also asked to list two of the most important concepts they had learned in class and one concept which they wanted to learn, but did not. Totals for items and completed checklists varied because not all students completed a checklist, and not all participants completed every item on the checklist.

The checklist and numbers of responses per category (Table 7) indicated six areas of change checked by eight or more students and five areas of change checked by ten or more students. Thirteen students indicated that since beginning Home Economics 7115, Consumer Education, they had compared prices before buying a product and had looked for a seal of approval on an article they were purchasing. Eleven students had compared product or company advertisements and read an article on the uses of credit. Ten students stated they had planned a personal budget since beginning the class, and eight had complained about a product. Of the remaining 10 items on the check list, eight were cited as having been achieved since beginning the class by one, two, or three individuals. The only two items on the checklist which none of the students indicated having changed were I have applied for a credit card and I have opened a charge account.

Those items which more than 20 students indicated they had completed before beginning the class, were I have opened a savings
Table 7
Behavior Checklist
Numbers of Students by
Category and Items

<table>
<thead>
<tr>
<th>I have:</th>
<th>Before Taking This Class</th>
<th>Since Beginning This Class</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. applied for a credit card</td>
<td>4</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>2. opened a savings account</td>
<td>22</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>3. opened a checking account</td>
<td>4</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>4. invested in car insurance</td>
<td>6</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>5. complained about a product</td>
<td>17</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>6. compared prices before buying</td>
<td>22</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>7. compared products or company advertisements</td>
<td>17</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>8. planned a personal budget</td>
<td>12</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>9. read an article on uses of credit</td>
<td>5</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>10. owned a car</td>
<td>7</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>11. opened a charge account</td>
<td>3</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>12. completed an income tax form</td>
<td>12</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>13. looked for a product seal of approval</td>
<td>7</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>14. read and signed a contract</td>
<td>10</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>15. had an allowance</td>
<td>28</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>16. had a job</td>
<td>26</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>
account, 22 students; I have compared prices before buying, 22 students; I have had an allowance, 28 students; and I have had a job, 26 students.

The third possibility on the checklist was an indication of having never participated in the activity. Eight of the 16 items were checked by more than 20 students as having never been participated in and four, by 30 or more. The four items checked by 30 or more students were I have applied for a credit card, 33 students; I have opened a checking account, 32 students; I have invested in car insurance, 30 students; and I have opened a charge account, 33 students. Additionally, 24 students had never read or signed a contract and 22 had never completed a tax form.

After completing the checklist, students were asked to indicate one or two of the concepts which they had learned during the course which they perceived as being most important. The concept indicated by the most students was budgeting, followed by insurance buying, auto buying, and price comparison. Other items listed by more than one student were types of credit available, balancing a checkbook, how to get the most for your money, and the rights of the consumer. Several items were listed by only one student. Those included management, reading credit information, labels and seals, government and private groups who support consumers, contract reading, and responsibilities of the consumer.

Students were asked to indicate one concept they would have liked to study during the course but which was not covered. Most students did not list additional concepts. Those who did listed understanding
of governmental situations which affect economics, how to plan a
personal budget, taxes, how to go job hunting, and how to buy or sell
a house without using a realtor.

If results of the behavioral checklist are compared with the Stu-
dent/Teacher Assessment of Consumer Education conducted by the Wake
County Public School System in 1981, similarities may be observed.
When students in Wake County were asked what additional topics should
have been included in their course, they listed taxes, property
buying, budgeting, credit, and insurance. Both groups expressed a
need for additional information on taxes, property transactions and
budgeting.

Enrollment

Enrollment in Home Economics 7115, Consumer Education had remained
fairly consistent statewide over the last three years (Table 8).
Totals indicated a net reduction of only 45 students. While all eight
districts have had fluctuations in numbers, only one district,
District VII, indicated a drastic reduction in enrollment. In 1979,
District VII had a total enrollment in Home Economics 7115, Consumer
Education, of 331 students; in 1980 and 1981, the total was 19 students.

Teachers in District VII were contacted by mail. The purpose of
the study was explained and teachers were asked to indicate on a
Consumer Education Survey the factors they perceived as reasons for
the enrollment reduction. Of the four schools offering Home Economics
7115, Consumer Education, in 1979, three responded to the survey.
Lack of student interest was cited by two of the schools as a reason
Table 8
District Enrollment - Fall Semester, 1979-1981
Home Economics 7115, Consumer Education

<table>
<thead>
<tr>
<th>Educational District</th>
<th>1979</th>
<th>1980</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>208</td>
<td>120</td>
<td>138</td>
</tr>
<tr>
<td>II</td>
<td>29</td>
<td>177</td>
<td>193</td>
</tr>
<tr>
<td>III</td>
<td>1,380</td>
<td>1,160</td>
<td>1,272</td>
</tr>
<tr>
<td>IV</td>
<td>121</td>
<td>203</td>
<td>235</td>
</tr>
<tr>
<td>V</td>
<td>215</td>
<td>183</td>
<td>196</td>
</tr>
<tr>
<td>VI</td>
<td>200</td>
<td>181</td>
<td>182</td>
</tr>
<tr>
<td>VII</td>
<td>331</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>VIII</td>
<td>47</td>
<td>160</td>
<td>251</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,531</td>
<td>2,203</td>
<td>2,486</td>
</tr>
</tbody>
</table>

for enrollment decline. One school, which accounted for 198 of the 331 students enrolled in 1979, added that at that time, Home Economics 7115, Consumer Education, was a required course and was blocked with Driver's Education. When the requirement was dropped, enrollment declined.

Elaborating on the reasons for decline, one respondent indicated that courses were offered according to the number of requests. Students requested Home Economics 7115, Consumer Education, but the numbers were not enough to override other requests. The course which received the largest number of requests was Personal/Family Living Skills.
While the total enrollment for District VI remained constant, specific schools have had enrollment declines. Teachers in the Charlotte-Mecklenburg System were asked to indicate factors they perceived as reasons for the enrollment decline. Increased numbers of electives from which students may choose was listed as a factor for the decline by two teachers. Another cited a problem attributed to our mobility as a society. Students in the eleventh and twelfth grades are allowed to take a minimum number of classes and then leave campus. Students, particularly those with after-school jobs and access to an automobile, schedule required courses as early in the day as possible, then leave campus. Those students take few electives and, according to the teacher interviewed, other elective areas are experiencing a decline in enrollment also.

**Tests of Hypotheses**

In the following section, each of the five hypotheses is examined, statistical procedures discussed, and the results analyzed and interpreted. Hypothesis one utilized the \( t \) test procedure as a primary method of analysis while the Pearson product moment correlation technique was used to examine hypotheses two and four.

The third technique, chi square, was employed to examine hypotheses three and five. To determine whether a relationship existed between the competency level of the students' sex and socioeconomic status. To determine the competency level, two groups were formed based on the posttest scores. The high group included scores equal to the mean or above and the low group indicated scores below the mean. A
summary of the findings related to the hypotheses is presented at the end of the section.

**Hypothesis One**

There is no significant difference in the competency level attained by students who had received instruction in Home Economics 7115, Consumer Education, and that of students who had not received instruction.

The data used to test the first hypothesis were obtained from the change in the pretest and posttest scores. A t test was employed to ascertain whether or not there was a significant difference between the control and the experimental groups relating to mean gain scores by the two groups.

The mean gain score for the experimental group was 15.53 with a standard deviation of 5.46. For the control group, the mean gain score was 8.35 and the standard deviation was 7.45. The calculated $t$ was 4.8496 which was significant at the .05 level. In fact, the level of significance was below the .0005 level of significance. Based on the results of the analysis, the hypothesis was rejected indicating that there was a significant difference in the mean gain score of students who had received instruction in Home Economics 7115, Consumer Education, and students who had not received instruction. Data indicated a significantly higher gain for the group which received instruction.

**Hypothesis Two**

There is no significant relationship between grade level and the competency level of students enrolled in Home Economics 7115, Consumer
Education.

The data used to test the second hypothesis were the posttest score and the grade level of the students. A correlation coefficient was calculated for grade level and posttest score. This correlation coefficient indicated no significant correlation between grade level and the posttest score. The calculated correlation coefficient was -.259. Based on the data collected from this study, hypothesis was not rejected. There was no significant relationship between grade level and competency level of students enrolled in Home Economics 7115, Consumer Education.

Hypothesis Three

There is no significant relationship between sex and the competency level of students enrolled in Home Economics 7115, Consumer Education.

Data used to analyze hypothesis three were the posttest scores and the demographic variable sex. The chi-square procedure was used to analyze the data. A two-by-two table was developed and scores grouped to apply the chi-square statistic. The table was developed by establishing two groups based on posttest scores. Groups were designated as high or low. The high group included those students whose posttest score was equal to the mean or above. The low group included all students whose posttest score was below the mean for the group. For the test, the sample size was n=36. When the chi-square was calculated, a value of .000 was obtained with a p-value of .9852 (Table 9). Therefore, the hypothesis, no significant relationship
between sex and the competency level of students, may not be rejected. Data indicated that in fact, no significant relationship existed between sex and the competency level of students enrolled in Home Economics 7115, Consumer Education.

**Hypothesis Four**

There is no significant relationship between age and the competency level of students enrolled in Home Economics 7115, Consumer Education.

The fourth hypothesis utilized data from the posttest scores and the age of the students from the demographic section. Utilizing a correlation technique, a significant correlation was indicated between age and the competency level of students. The correlation coefficient was -.352 indicating that the higher the age, the lower the posttest score. The p-value was .03. Thus, hypothesis four could not be accepted.

**Hypothesis Five**

There is no significant relationship between socioeconomic status and the competency level of students enrolled in Home Economics 7115, Consumer Education.

In order to determine whether or not socioeconomic status and the competency level of students were related, the chi-square statistic was used to analyze the data (Table 9). Data were obtained from the demographic section and the posttest scores of the experimental group. Posttest scores were grouped to produce a two-way table. When calculated, the chi-square was .066 with a p-value of .7966. The hypo-
Table 9

Relationship Between Score and Sex

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Score Group</th>
<th>Low</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Percent</td>
<td></td>
<td>8</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Column Percent</td>
<td></td>
<td>22.22</td>
<td>25.00</td>
<td>47.22</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>47.06</td>
<td>52.94</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>47.06</td>
<td>47.37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>9</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.00</td>
<td>27.78</td>
<td>52.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47.37</td>
<td>52.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.94</td>
<td>52.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47.22</td>
<td>52.78</td>
<td>100.0</td>
</tr>
</tbody>
</table>

chi-square=.000
p-value=.9852
df=1

Relationship Between Score and Socioeconomic Status

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Score Group</th>
<th>Low</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Percent</td>
<td></td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Column Percent</td>
<td></td>
<td>8.33</td>
<td>11.11</td>
<td>19.44</td>
</tr>
<tr>
<td></td>
<td>One</td>
<td>42.86</td>
<td>57.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17.65</td>
<td>21.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Socioeconomic Level</td>
<td>14</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Two</td>
<td>38.89</td>
<td>41.67</td>
<td>80.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48.28</td>
<td>51.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>82.35</td>
<td>78.95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47.22</td>
<td>52.78</td>
<td>100.0</td>
</tr>
</tbody>
</table>

chi-square=.066
p-Value=.7966
df=1
thesis of no significant relationship between socioeconomic level and the competency level of students enrolled in Home Economics 7115, Consumer Education, could not be rejected.

Summary

Of the five hypotheses formulated for this study, two were rejected. Hypothesis one, which examined the relationship between the competency level of students who had and had not received instruction, was found to have a significant difference in the two groups. Students in the experimental group receiving instruction in Home Economics 7115, Consumer Education, were found to have a significantly greater mean gain score than students who did not receive instruction. Hypothesis four was rejected when analysis of data indicated that there was a significant relationship between age and the competency level of students enrolled in Home Economics 7115, Consumer Education.

Analysis of the data concerning the relationship between grade level and consumer competency of selected students resulted in the failure to reject hypothesis two. Therefore, it was concluded that there was no significant relationship between grade level and consumer competency of students enrolled in Home Economics 7115, Consumer Education.

Hypothesis three examined the relationship between sex of the participants and the competency level attained. Data indicated that the hypothesis could not be rejected. Analysis of the data indicated that no significant relationship existed between the sex and the
competency level of students enrolled in Home Economics 7115, Consumer Education.

The fifth hypothesis which examined the relationship between socioeconomic level and competency of participants also could not be rejected. Data indicated that no significant relationship existed between the socioeconomic level and the competency level of students enrolled in Home Economics 7115, Consumer Education.

**Discussion of Findings**

The findings and results of this study were based on mean gain scores and total posttest scores. Demographic information such as age, sex, grade level, and socioeconomic level were also used to obtain the information necessary to assess findings and draw conclusions.

Analysis of data indicated a mean score gain for both the experimental and control groups. Gain by the control group was assumed to be the result of exposure to consumer education information available through the media and experiential factors which occurred from the time of the pretest in September, 1981, and the posttest in January, 1982. Familiarity with the instrument and questions asked may account for some of the gain. The significant difference in the mean gain score by the experimental group may be attributable to the instruction received.

The results and findings of this study compared favorably with other consumer education studies, and differed in some aspects with other related studies. Stanley (1976) and Cogle (1977) reported that students who had received instruction in consumer education score
higher on cognitive tests than students who had not received instruction. The findings of this study agreed with their findings. While mean gain scores after instruction were indicated, retention of that knowledge was not. Hawkins (1977) evaluated the consumer education knowledge of students two years after graduation. He found no difference in the scores of those who had instruction in consumer education in high school and those who had received no instruction.

When data from this study were analyzed, no significant relationship was found between sex and the competency level of students enrolled in Home Economics 7115, Consumer Education. Davis (1977) found that males tended to score higher on consumer credit and transportation questions than did females. Conversely, females tended to score higher on questions relating to clothing and health. Maupin (1978) reported that males and females tended to perform equivalently on consumer education tests and Peters (1980) discovered there was no difference by sex in the scores of students tested on consumer education concepts.

Analysis of the demographic variable age produced conflicting information. This study found that younger students scored higher on the test. Turner and Brandt (1978) reported that consumer skill depends upon maturation and the use of one's education. Peters (1980) reported a significant difference by age, but that difference was in the opposite direction of this study. In Peters' study, consumer education knowledge increased as age increased.

Regarding the demographic variable of socioeconomic status, Maupin (1978) found that persons of higher socioeconomic status scored higher on tests of consumer competency than persons of lower socioeconomic
status. The assumption was that persons of a higher socioeconomic status had more experience with actual consumer education practices and problems. Unlike Maupin's study, this study found no significant difference in the socioeconomic status of students and the consumer competency of those students.

The Joint Council on Economic Education (1971), in a discussion of the validation of the instrument used for this study, indicated conflicting findings. The Council found that students in higher grades tended to score higher on the Test of Understanding in Personal Economics. Evaluation was conducted in Home Economics, Business Education, and Social Studies classes. In all three areas, twelfth-grade students scored higher on the test than ninth graders. Results of this study indicated no significant difference by grade level.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to compare the competency level attained by students who had received instruction in consumer education with that of students who had not received the instruction. The four specific objectives outlined for this study were (1) to determine the competency level of students before and after enrolling in Home Economics 7115, Consumer Education; (2) to compare the competency level of students who had instruction in Home Economics 7115, Consumer Education, with that of students who had not had specific instruction; (3) to determine whether a relationship existed among such demographic variables as grade level, sex, age, and socioeconomic status; and (4) to identify some of the reasons for declining enrollment in Home Economics 7115, Consumer Education, in one educational district.

A nonrandomized control group, pretest-posttest design was implemented, permitting the comparison of experimental and control groups with pretest and posttest performance. Data were also analyzed in relation to certain demographic variables. The target population for this study was defined as students enrolled in Home Economics 7115, Consumer Education, in Districts V and VI in North Carolina. The control groups were students in the same school as the experimental group and who were enrolled in another semester Home Economics class.
Students were selected from senior high schools only. After contacting schools in Districts V and VI, two schools in District VI agreed to participate in the study.

The sample in the study consisted of 97 students who completed the pretest, 51 for the control group and 46 for the experimental group. Final analysis was conducted on data from those students who completed both the pretest and the posttest. Those numbers were 46 in the control group and 36 in the experimental group. A review of the demographic data indicated that 44 percent of the participants were 15 years of age, the largest age group. Females represented 72 percent of the total respondents and the rest were male. While it was assumed that the three grade levels would be fairly evenly represented, 51 percent of the participants were in grade 10. Finally, only 22 percent of the students were in socioeconomic Level I and the remainder were in Level II.

The Test of Understanding in Personal Economics was utilized as a pretest-posttest for collecting data from both the control group and the experimental group. The pretest was administered in September, 1981, and the posttest was administered in January, 1982. The experimental groups were provided instruction according to the Home Economics 7115, Consumer Education curriculum Guide. The control group received no formal instruction.

Since this study was limited to two schools in one educational district, the findings of the study apply only to this specific population. A replication of the study under different circumstances could produce more generalizable results.
Conclusions

The analysis of data from this study involved both descriptive statistics and tests of hypotheses. The data collection instrument exhibited a multiple-choice format with four possible answers. Behavioral changes were determined through the use of a behavioral checklist.

Responses from the pretest and posttest were tabulated and examined. The behavioral checklist was consolidated and conclusions drawn from the consolidated data.

The hypotheses were tested utilizing t tests, correlation techniques and chi-square analysis. A significant relationship was noted for two of the five hypotheses.

When examining the effects of formalized instruction in consumer education on the competency level of students, statistical analyses revealed that those students who had instruction had a higher mean score gain than those who had not had instruction. Formal instruction in consumer education significantly increased student's mean gain score.

When considering sex of students and consumer education competency, the statistical procedure indicated no significant relationship. Analysis of the relationship between grade level and consumer competency revealed the same findings as for sex. No significant relationship existed between grade level of the students and their consumer competency.

Examination of the relationship between age and consumer competency resulted in the rejection of the null hypothesis. It was hypothesized
that there was no significant relationship between age and consumer competency. Data indicated that an inverse relationship existed between age and consumer competency. The younger students scored significantly higher on the test than did the older students.

Socioeconomic status and consumer competency were examined to determine whether a relationship between the two existed. Statistical analysis revealed that no significant relationship existed between socioeconomic status and consumer competency.

Behavioral changes brought about by instruction in consumer education were examined. Compilation of data indicated the changes experienced by the largest number of students were in the areas of price comparison, product and advertisement comparisons, budget planning, and recognition of seals of approval. Eleven students also indicated that since the beginning of the course, they had read an article on the use of consumer credit. Thirty-three students indicated they had never applied for a credit card or opened a charge account; 32 had never opened a checking account. Students indicated they would have liked more instruction in budgeting, insurance, auto buying, and price comparison.

An additional purpose of the study was to determine reasons for enrollment decline in one educational district. Teachers reported that lack of student interest and the removal of Home Economics 7115, Consumer Education, as a requirement were the primary causes for enrollment decline. Additional reasons were increased numbers of electives and outside interests which resulted in shorter school days for some students.
Recommendations for Future Research

There were indications that a longitudinal study of consumer education would aid in the improvement of the course. As a baseline study, this study could provide the basis for a comparative analysis wherein the same students are retested a year later to determine the retention of consumer education information by students. This could be facilitated by the fact that the majority of the students were in grades ten and eleven.

A comparison of pretest and posttest scores of students enrolled in consumer education courses in other disciplines could provide the basis for curricular changes. By determining mean gain scores and determining whether or not significant differences exist, the effectiveness of current curriculum guides in various disciplines could be evaluated.

The study could be replicated in other educational districts across the state. Additional information from other districts could facilitate statewide comparison.
BIBLIOGRAPHY
Bibliography


*A plan to integrate consumer concepts into the public schools of Maryland.* Baltimore, Maryland: Maryland State Department of Education, 1974.


Consumer activity and resources for home economics. Frederick County, Howard County, Maryland, 1976.

Consumer and economic education guideline. Indianapolis, Indiana: Indiana State Board of Vocational and Technical Education. (ERIC Document Reproduction Service No. ED 167 439)


Forgan, H. W., & Mangrum, C. T. Teaching content area reading skills. Columbus, Ohio: Charles E. Merrill, 1976, p. 33.


Johnson, B. J. Social Studies Director, Wake County Public School System. Telephone Interview, January 12, 1982.


APPENDICES
APPENDIX A

INSTRUCTIONAL MATERIALS AND STRATEGIES
Consumer Education Information Survey

Teachers:
Before you complete this week at the 1980 Vocational Summer Conference, please complete the Consumer Education Information Survey. The completed forms are to be left with the Home Economics Consultant for your district at the district meeting.

Teacher's Name_________________________ School_____________________
Principal's Name________________________ School Address__________________

Will Consumer Education 7115 be taught in your school?

<table>
<thead>
<tr>
<th>Semester</th>
<th>Yes</th>
<th>No (Check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Sections</td>
<td></td>
<td>Approximate number of Students</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>Yes</td>
<td>No (Check one)</td>
</tr>
<tr>
<td>Number of Sections</td>
<td></td>
<td>Approximate number of Students</td>
</tr>
</tbody>
</table>
6932 Lancer Drive  
Charlotte, N. C. 28211  
January 6, 1981

Dear Colleague:

As a part of the doctoral program at UNC-G, I am conducting a survey of the Home Economics 7115, Consumer Education, classes being taught in your district during the Spring Semester, 1981.

On the enclosed postal card, please indicate the names of the teachers in your school who will be teaching 7115 during the Spring Semester, the number of classes they will have, and the approximate number of students per class. Also, indicate the title of other semester classes being taught Spring Semester by those same teachers.

I would appreciate having the card returned by January 20, 1981. Since you are the only source of this information, your cooperation is vital to the success of this project. Thank you.

Sincerely,

Nancy A. Stokes

Enclosure
Dear Colleague:

As a doctoral student in Home Economics Education at the University of North Carolina at Greensboro, I plan to complete a dissertation on the study of Consumer Education in Districts V and VI during the current school year. In order to conduct the study, I propose to administer the Test of Understanding in Personal Economics developed by the Joint Council on Economic Education. The test will be administered to high school students enrolled in Home Economics 7115, Consumer Education. Administration is to take place during the first weeks of the semester as a pretest and again in January, 1982 as a posttest. Results will be compared to determine the attainment of competency in consumer education.

Instruments, answer sheets, instructions, and return, stamped, envelopes will be supplied to the teachers participating. The test will take approximately one class period. Results will not be identified by individual students, schools, or districts, but will be combined for a composite analysis.

According to the Regional Vocational Director, you will have _____ sections of Home Economics 7115, Consumer Education, at ______ School Fall Semester, 1981. I would appreciate it if you could assist me in this project and in obtaining permission to conduct the study at _____________ School.

Please notify me of the steps I should follow.

Sincerely,

Nancy A. Stokes
CONSUMER EDUCATION CONSENT FORM

I understand the purpose of the questionnaire on Consumer Education.
I am willing to participate in the program.

____________________
Signature
Dear Colleague:

Thank you again for participating in the consumer education competency study. Enclosed in your packet are questionnaires, answer sheets, and consent forms. Instructions and an itemized list of materials are also included.

The Test of Understanding in Personal Economics should be administered to your Home Economics 7115, Consumer Education, class. The test should also be administered to one other semester home economics class which will approximate the 7115 class in numbers. Please keep the answer sheets for the two groups separate and label with the title of the course.

Distribute answer sheets and consent forms to students. Please have them sign the consent form first and then have students grid their names (on side two) first. Then grid sex, birthdate, and grade. Distribute booklets and read directions to students. Please explain that no one is expected to know all the answers, but they should answer every question. Students are to be given forty-five minutes to complete the test from the time they begin answering the questions. Read directions to students and ask that they read the directions as you do.

When the time is up, please take up the booklets and count them. Collect consent forms and answer sheets.

Please return the booklets, answer sheets, and consent forms to me.

I will be back in touch with you for the posttest in January. Thank you again for your participation and cooperation. I hope you have a successful school year.

Sincerely,

Nancy A. Stokes

Enclosures
Dear Ms.______________________,

A survey concerning Home Economics 7115, Consumer Education, was conducted at the 1980 Vocational Summer Conference and followed up with a mail survey in the winter of 1980-1981. The results of the two surveys, when compared with the State Department of Public Instruction printout of the Fall, 1979 enrollment, indicated that enrollment in the course had declined in some districts. On the 1979 report, your school reported ________ students enrolled in Home Economics 7115, Consumer Education. The 1980 report indicated that the course was not taught in your school.

One purpose of the study which I am conducting, as a part of the requirements for a Ph. D. in Home Economics Education at the University of North Carolina at Greensboro, is to determine some of the reasons for school not offering Home Economics 7115, Consumer Education. We are comparing enrollments for Fall Semester only during the years 1979, 1980, and 1981.

We would like input from you, the classroom teacher, in order to determine some of the reasons for the decline in enrollment. On the enclosed paper, please indicate the information concerning enrollment in your school. If you would like to make additional comments concerning the enrollment in your school, please feel free to write them on the enclosed paper. It is our belief that as a classroom teacher, you have the information essential for determining the reasons for the change in enrollment numbers.

Please respond and return the information as soon as possible. I appreciate your cooperation. We cannot have accurate information without your help.

Sincerely,

Nancy A. Stokes

Enclosure
Enrollment Survey

Name_________________________ School_________________________

Address________________________

Please check reason(s) for not offering 7115:

_____lack of student interest

_____decrease in number of teachers

_____teacher's personal preference not to offer

_____other courses considered more important

_____Consumer Education taught in other disciplines

_____Other (Please specify)______________________________
Dear Colleague:

It is time for the posttest in Home Economics 7115, Consumer Education. Enclosed in your packet are questionnaires, answer sheets, and an additional student questionnaire. Instructions and an itemized list of materials are also included. The separate student questionnaire should be given to the Home Economics 7115, Consumer Education, students only.

The answer sheets for the posttest have already been gridded with the student's name, sex, birth date, and grade in school. Students should not grid anything in the section labeled identification number.

Distribute answer sheets and booklets to students and read directions to them. Please explain that no one is expected to know all the answers, but they should attempt to answer every question.

When the time is up, please take up the booklets and count them. Collect answer sheets and student questionnaires. If you prefer, students may complete the student questionnaire on a separate day from the Test of Understanding in Personal Economics.

Please return the booklets, optical scan sheets, and student questionnaires to me. Please put them in the courier mail no later than Wednesday, January 26, so that I can get the information to the computer.

If there are students who completed the pretest, but are no longer enrolled in your classes for the posttest, could you please give me some information about them? If you have access to the information, I would like to know if they dropped the class, dropped out of school, or whatever the reason for no longer being enrolled.

Thank you for participating in the study. I sincerely appreciate the time and cooperation you have given me.

Sincerely,

Nancy A. Stokes

Enclosures
TEST OF UNDERSTANDING IN PERSONAL ECONOMICS

One answer is to be chosen and the corresponding space darkened on the optical scan sheet.

1. In a free market what factor is most important in determining which goods and services will be produced and how much they will cost?
   A. State government.
   B. Price Control mechanism.
   C. Supply and demand.
   D. Consumer needs.

2. Which of the following usually tends to hold down prices for a product?
   A. Only one company makes the article.
   B. Several competing companies make it.
   C. Strong labor unions control production.
   D. Foreign imports are prohibited.

3. Social security benefits are paid for by contributions from
   A. employees only.
   B. employers only.
   C. employees and employers.
   D. employers and government.

4. What is the principal reason for a higher average wage per worker in the U. S. than in most other nations?
   A. There is a high output per worker.
   B. Most businesses share their profits with workers.
   C. Labor unions force business to pay more than the value of workers' output.
   D. There is great respect for the needs of workers.

5. If a state government is considering either an increase in the sales tax or the tax on personal incomes, which alternative is considered generally to be more favorable to low-income people and why?
   A. Sales tax, because this falls equally on everyone and the rich can't escape it.
   B. Sales tax, because rates are lower than those in the case of income taxes.
   C. Personal income tax, because it is collected only on investment income.
   D. Personal income tax, because this kind of tax tends to take a higher percentage of income from rich people.
6. A major purpose of antitrust laws is to
   A. eliminate inefficient producers.
   B. standardize products.
   C. promote competition.
   D. stabilize prices.

7. A husband who accepts the practice of having his family eat in
   restaurants frequently while encouraging his wife to continue her
   teaching career is probably
   A. recognizing the principle of comparative advantage.
   B. aware that food in restaurants is more nutritious.
   C. applying the principle of supply and demand.
   D. more interested in himself than his family.

8. "Human wants are greater than the resources that are available to
   satisfy them." This implies the need for
   A. leaving decisions to fate.
   B. working harder.
   C. making choices to allocate resources.
   D. asking for less.

9. American workers have the right to join a union and elect representa­
   tives to negotiate with the employer. This right is referred to as
   A. collective bargaining.
   B. right to work legislation.
   C. seniority.
   D. inalienable right.

10. Which one of the following is most likely to increase a person's
    lifetime earning capacity?
    A. Support increases in the level of government minimum
       wage rates.
    B. Obtain as much education as possible.
    C. Move to a state in which per capita income is increasing.
    D. Prod the government to increase Social Security benefits.

11. A worker's "real wages" refers to
    A. regular wages plus overtime pay.
    B. current money wages minus taxes.
    C. buying power of wages.
    D. Wages plus fringe benefits paid by the company.

12. As the income of a family rises, it is likely to spend a smaller
    proportion of its income for
    A. travel.
    B. taxes.
    C. recreation.
    D. food.
13. A consumer wants to borrow money to buy a new car. He visits a local commercial bank and is granted a loan. Which of the following methods of financing might he have used to obtain the money at a lower cost?
A. Pawn an article of value against future redemption.
B. Buy on time from the car dealer.
C. Establish a revolving credit account with a finance company.
D. Borrow against the cash value of his life insurance policy.

14. A general principle of managing "savings" is that at least part of it should be readily available to spend. "Savings" would be most available if
A. placed in a bank savings account.
B. invested in collector's coins.
C. invested in real estate.
D. used to buy a partnership in a small business.

15. When the government employs additional people during a time of high employment, what is likely to be the effect on the level of wages in the economy?
A. They will increase.
B. They will decrease.
C. They will be unaffected.
D. The effect will be disastrous.

16. Most of the total U. S. federal debt is the result of
A. expenses connected with wars.
B. public welfare expenditures.
C. grants to state governments.
D. borrowing by other countries.

17. Dr. Jones earns more than $20,000 per year as a surgeon in Metropolitan Hospital. Dr. Brown earns $12,000 a year as a professor at City University. Why do surgeons generally earn more money than college professors?
A. Medical doctors perform a greater service to mankind than do professors.
B. Medical doctors have a strong organization called the American Medical Association.
C. There is a greater relative scarcity of surgeons.
D. Surgeons work more irregular hours.

18. What are the four major factors of production?
A. Oil, land, gas, electricity.
B. Banking, investing, manufacturing, managing.
C. Wages, rent, interest, capital.
D. Land, labor, capital, management.
19. A student who spends less money to buy records and uses this money to buy more books when he realizes records are giving him decreasing satisfaction is probably applying the principle of
A. comparative advantage.
B. supply and demand.
C. diminishing returns.
D. Laissez-faire.

20. Which of the following groups are referred to as blue-collar workers?
A. Farmers and farm managers.
B. Craftsmen, machine operators and laborers.
C. Waiters, firemen and policemen.
D. Lawyers, accountants and engineers.

21. The specialization of labor results in
A. more economic interdependence.
B. increased price inflation.
C. less output per man-hour.
D. more equal distribution of income.

22. If a family borrows money or uses credit to purchase consumer goods, what is the effect on future spending potential?
A. It remains unchanged.
B. It is decreased.
C. It is increased.
D. It will increase and then decrease.

23. A key factor underlying the principle of insurance is that the insurance
A. reduces the chances of accident or death.
B. enables individuals to share losses.
C. lowers the total cost of accidents.
D. shifts the financial burden away from government.

24. The Consumer Price Index is an indicator of
A. the level of prices at one time compared to a previous time.
B. changes in consumer choices for particular products.
C. the total of consumer spending for particular products.
D. whether a product is a bargain.

25. How does the "truth in lending law" help consumers?
A. It requires that finance charges be clearly stated so that consumers know how much interest they are paying on charge accounts.
B. It requires retail stores to charge smaller amounts of interest on charge accounts.
C. It saves the consumer money by pooling all charges, including purchases and interest, into one central computer account.
D. It requires that lenders of money be reported to the Federal Reserve Bank when their interest rates become too high.
26. Generally, the largest portion of money in local government budgets is spent for
   A. education.
   B. protection from crime.
   C. maintenance of streets.
   D. public housing.

27. If the government cuts down its spending, will there be automatic economic stability and why?
   A. No, because consumers will buy what the government had bought.
   B. Yes, because the decreased taxes will help people balance their budgets.
   C. Yes, because government spending controls business spending.
   D. No, because a cut in expenditures may affect spending by consumers and business.

28. The Smith family felt it could use a larger house and a new car. It found two houses on the market which would meet their needs but the one costing about $5,000 more had several more desirable features. The Smiths' current financial condition would enable them to buy either the more expensive house or the less expensive house and a car. The Smiths decided to buy the more expensive home. What was the opportunity cost of the decision?
   A. A new car.
   B. $5,000
   C. A less expensive house.
   D. A new house.

29. The decision to buy the more expensive house resulted in deferred satisfaction from
   A. a vacation.
   B. the use of the new car.
   C. more space.
   D. less fun.

30. What is an example of a "fringe benefit" provided by an employer for employees?
   A. Overtime pay.
   B. Workmen's compensation.
   C. Payment of health insurance.
   D. Social Security.

31. Which of the following has been a major factor contributing to the economic growth of the United States?
   A. Steady increase in the supply of money.
   B. Government supervision of big business.
   D. Improvements in technology and productivity.
32. A consumer wishes to determine if a merchant has a good reputation for fair dealing in his community. One source to secure such information would be the
A. U. S. Department of Commerce.
B. newspaper.
C. Consumer Index.

33. Of the following, what situation or economic condition would most likely increase the use of consumer credit?
A. A prediction that prices will be lower in the future.
B. Higher standards to qualify for loans.
C. Predictions that future income will be lower.
D. Lower rates for borrowing.

34. Which of the following involves the greatest risk?
A. Purchase of a life insurance policy.
B. Investment in corporate stocks.
C. Investment in corporate bonds.
D. Depositing in savings account.

35. The money value of a house, less the mortgage money still due on it, is the homeowner's
A. lien.
B. equity.
C. depreciation.
D. dividend.

36. In many recent votes on school budgets, citizens have defeated school tax proposals and forced schools to eliminate extracurricular activities because of a lack of funds. What, if any, are the opportunity costs of such decisions?
A. Since less money will be spent there are no opportunity costs.
B. Whatever benefits there might have been from the extracurricular activities.
C. The opportunity to use school facilities fully.
D. The costs of what taxpayers will now buy with what they saved.

37. Some economists believe that a progressive tax is the fairest method of raising government funds. An example of a progressive tax if
A. property tax.
B. sales tax.
C. excise tax.
D. income tax.

38. Men have developed different economic systems for carrying out their economic activities. The American economic system functions primarily through
A. tradition.
B. command.
C. the stock exchange.
D. markets.
39. Which of the following includes characteristics that are essential features of American capitalism?
   A. Private property and profit motive.
   B. Public property and central planning.
   C. Private property and state-controlled production.
   D. Public property and no personal profits.

40. Economic forecasts indicate that between now and 1980 the Gross National Product will increase at a faster rate than will the number of workers. In order for this to occur, what must also occur?
   A. The working population must be paid less.
   B. The supply of unskilled labor must increase.
   C. The unemployment rate must increase.
   D. The productivity of workers must increase.

41. A producer had made identification badges for factory workers at a cost of 40 cents for each badge. This included costs of buying raw materials, producing the finished product, and shipping them. He will have to pay an additional 10 cents for the printing that will appear on the badge. He has just learned that due to competition he will be able to receive only 45 cents per badge. He had decided to sell the badges realizing he will suffer a loss. His decision to sell the badges anyway, despite a loss of 5 cents per badge, illustrates the application of the theory of
   A. shared risk.
   B. diminishing returns.
   C. opportunity cost.
   D. sunk costs.

42. What determines the value of the dollar?
   A. How much it will buy.
   B. The World Bank.
   C. How much the government wants it to be worth.
   D. The value of the gold buried at Fort Knox.

43. Which of the following statements is most accurate in describing the effect of government action on personal spending?
   A. Grants-in-aid from federal to state and local governments influence only government employees.
   B. The government budget will not affect the level of personal spending, only tax rates affect personal spending.
   C. All government actions in the economy reduce personal spending.
   D. The types and amounts of appropriations authorized by Congress influence the type and level of personal spending.
44. If many people increase their demand for a product or service but the supply remains about the same, the price of this product or service will probably
   A. fall.
   B. rise.
   C. be very high.
   D. be very low.

45. Which one of the following will probably be the result if the savings of individuals are being invested heavily in new plant and equipment?
   A. An increase in the price of food.
   B. Increased economic growth.
   C. Increase in bankruptcies.
   D. A decline in money supply.

46. In order to determine whether an increase in personal income over a period of time represents an increase in real levels of living, which one of the following would be of least importance?
   A. Size and composition of Gross National Product.
   B. Consumer Price Index.
   C. Amount of leisure time.
   D. International balance of trade.

47. A factory worker engaged in making printing presses is creating what type of goods.
   A. Consumer goods.
   B. Nondurable goods.
   C. Capital goods.
   D. None of the above.

48. What is the effect of advertising on the prices of goods to consumers?
   A. It has little effect on prices.
   B. It insures fair prices.
   C. It may contribute to higher prices immediately and lower prices in the long run.
   D. It raises prices.

49. A major objective of personal budgeting or planned spending is to
   A. decrease expenditures for luxuries.
   B. develop a useful relationship between income and spending priorities.
   C. eliminate the need for borrowing.
   D. make certain that more money is set aside regularly in a savings account.
50. The rule of rational choice is always to select that alternative
   A. whose benefits exceed its costs.
   B. whose costs are lowest.
   C. which will be valuable for the longest period of time.
   D. which brings fastest returns.
Behavior Checklist

Students: Thank you for helping me learn more about the course you are taking and how it is helping you. Please answer the following statements. Place a check in the column which is correct for you.

<table>
<thead>
<tr>
<th>I have:</th>
<th>Before Taking</th>
<th>Since Beginning</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. applied for a credit card</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>2. opened a savings account</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>3. opened a checking account</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>4. invested in car insurance</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>5. complained about a product</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>6. compared prices before buying</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>7. compared products or company advertisements</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>8. planned a personal budget</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>9. read an article on uses of credit</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>10. owned a car</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>11. opened a charge account</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>12. completed an income tax form</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>13. looked for a product seal of approval</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>14. read and signed a contract</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>15. had an allowance</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
<tr>
<td>16. had a job</td>
<td></td>
<td>This Class</td>
<td></td>
</tr>
</tbody>
</table>

Please list one or two of the things you think are most important which you have learned during your Consumer Education class.

Please tell me one thing which you would have liked to study during this course, but which you did not cover.
APPENDIX C

COMPETENCIES AND SUBCOMPETENCIES
A. OUR ECONOMIC SYSTEM

001. Describe the basic components of the United States economic system.
   a. define the types of economic systems
   b. identify the components of an economic system
   c. explain how the American economic system promotes the production of goods and services
   d. describe the effects of supply and demand on determining prices

002. Analyze the interacting roles of the consumer, business, and government, and the effects on the economy.

01. Describe economic functions of consumer, business, and government.
   a. identify various roles the individual plays within the economic system
   b. describe economic roles of government
   c. describe economic role of the producer

02. Analyze the effect of consumer legislation and government agencies on the consumer and industry.
   a. identify State and National government agencies that protect the consumer
   b. describe the kinds of activities performed by selected agencies whose aims are to enforce consumer legislation
   c. describe legislative action designed to protect the consumer against defective products and/or unfair practices
   d. explain how government regulations affect the cost of goods and services provided by industry

03. Analyze the decision-making process used by consumers.
   a. define values and goals
   b. describe the decision-making process
   c. explain how values, goals, and standards affect decision-making
   d. analyze the use of the decision-making process in selected consumer situations
e. describe how economic conditions influence economic decision-making

B. CONSUMER PLANNING AND DECISION MAKING

004. Assess the effects of the use of resources on both individual and/or familial needs and societal needs.

a. differentiate among various types of resources that are used to achieve goals
b. identify characteristics of resources
c. explain how resources can be used to achieve goals
d. describe family characteristics at different states of the family cycle likely to affect the family's economic condition
e. tell how individuals and/or family members can create or increase resources for attainment of goals

C. MANAGEMENT OF HOMEMAKING RESPONSIBILITIES

005. Describe process involved in management of resources to fulfill homemaking responsibilities.

a. identify the factors involved in the management process
b. describe the value of management in relation to homemaking responsibilities
c. describe ways to cooperatively manage homemaking responsibilities with friends or other family members

006. Demonstrate management practices in selected homemaking responsibilities.

a. demonstrate efficiency in planned use of time and energy in management of selected household responsibilities
b. explain the use of selected equipment items to facilitate time and energy efficiency in completion of tasks
c. apply criteria to selection of cleaning supplies and small equipment for managing household responsibilities
d. discuss relationship between demands on time and availability of time for accomplishment of tasks and personal responsibilities
e. value the development of management skills
007. Interpret how to use financial planning for the attainment of individual and/or family goals.

a. summarize money management principles needed in developing and evaluating financial plans for individuals and families
b. explain various strategies used by individuals and/or families to provide for financial security
c. demonstrate management of resources to provide for needs by developing budget allocations based on fixed expenses and income in view of economic history, values, and goals of sample families

D. FINANCIAL PROTECTION FOR THE CONSUMER

008. Illustrate types of financial services available to consumers.

a. describe types of financial services available for consumers
b. explain types of services offered by banks and cost, if any, of each
c. demonstrate the procedures involved in using a personal checking and savings account
d. recognize reasons for using a personal checking account
e. describe ways the property of customers/depositors are protected

009. Compare potential risks and gains in various savings and investment plans.

a. list reasons why individuals and/or families save
b. identify methods of savings
c. explain how interest is computed on savings
d. analyze various savings plans available to consumers in terms of risk and earnings
e. describe types of investments available to consumers
f. identify sources of information and assistance available to investors
g. describe factors which affect plans for savings and investments at different stages of the life cycle

010. Analyze types of insurance for individual/family protection.

a. explain factors which influence individual or family needs for insurance
b. explain features of each type of insurance
c. list factors which influence the cost one pays for various types of insurance
d. describe the major benefits provided through the Social Security Act

E. USE OF CONSUMER CREDIT

011. Analyze sources, costs, and uses of consumer credit.

a. define credit
b. identify types of credit
c. identify sources of consumer credit
d. identify advantages and disadvantages of types of sales credit available to consumers
e. explain costs involved in securing and using credit
f. compare the use of credit as opposed to payment with cash
g. identify legal aspects of use of credit
h. complete an application form for securing credit

012. Describe the effects of credit rating on consumers.

a. define credit rating
b. explain how one's credit rating affects the type and costs of credit the consumer is able to secure

F. CONSUMER RIGHTS AND RESPONSIBILITIES

013. Relate basic consumer rights and responsibilities to consumer behaviors.

a. list five consumer rights and five consumer responsibilities
b. understand the relationship between consumer rights and responsibilities and product or service
c. summarize responsibilities of consumers for expressing satisfaction/dissatisfaction with goods and services provided
d. give reasons consumers do not take advantage of the protection available to them
e. practice alternative actions for consumers to express satisfaction or dissatisfaction with goods and services purchased
f. describe the relationship between consumer choices and the resulting ecological environment
g. identify consumer rights and responsibilities relative to contracts
G. CONSUMERS IN THE MARKETPLACE

014. Analyze factors affecting consumers.

01. Describe influences on consumer choices.
   a. describe individual and family values and goals which influence consumers
   b. explain how needs and wants are affected by values and goals and influence consumer decisions
   c. explain the difference between standard of living and level of living
   d. compare needs at different stages of the life cycle

02. Compare shopping practices used by consumers.
   a. describe "general rules of buying" used by consumers to assure optimum use of resources
   b. describe courteous and ethical practices used by consumers when shopping
   c. analyze shopping practices frequently used when shopping for personal and household goods and services in terms of the time, skill, and money involved

03. Analyze influence of advertising and merchandising techniques on consumers.
   a. compare advertisements on various media in terms of appeal, extent of product information, and pressure on consumers to select the product or services offered
   b. analyze merchandising and advertising techniques commonly used by merchants to influence consumers to purchase their goods and/or services

04. Identify the effects of deceptive practices in the marketplace on the individual and/or family and society.
   a. describe types of fraudulent and deceptive practices in the marketplace
   b. explain how deceptive practices affect the consumer and general business community
   c. explain ways the consumer can be protected from fraudulent and deceptive practices
H. CONSUMER SERVICES AVAILABLE FROM INSTITUTIONS AND AGENCIES

015. Describe consumer services available through agencies and institutions.
   a. identify private agencies which specialize in providing financial advice and assistance to consumers
   b. describe examples of consumer information provided by industry and government to consumers
   c. explain the types of assistance provided to consumers by financial agencies

016. Evaluate sources and types of consumer information for the acquisition and use of goods and services.
   a. describe sources of product information available to consumers to be used in making consumer decisions
   b. analyze manufacturers information provided for consumers

I. OPPORTUNITIES FOR A CAREER

017. Explore future career opportunities in consumer fields in respect to individual and/or family resources.
   a. identify career opportunities in the private sector and government sector related to consumerism
   b. examine selected consumer related career in terms of training needs, training costs, employment opportunities, and employment advancement

018. Analyze future career choices and/or opportunities in relation to individual and/or family consumption patterns.
   a. identify career choices related to personal interests and aptitudes
   b. interpret individual and/or family consumption patterns
   c. compare career opportunities to allow for individual and/or family consumption patterns in relation to career training expenses
   d. compare career opportunities to career training expenses in relation to family consumption patterns

July, 1980
APPENDIX D

MEAN SCORE BY DEMOGRAPHIC VARIABLES

PRETEST AND POSTTEST
Mean Score by Sex

**Block Chart of Pref_Scor Means**

- Female
- Male

**Block Chart of Pos_Scor Means**

- Female
- Male
## Mean Score by Age

### PLUCK CHART OF PRE_SCOR MEANS

<table>
<thead>
<tr>
<th>Age</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15.625</td>
</tr>
<tr>
<td>16</td>
<td>16.5</td>
</tr>
<tr>
<td>17</td>
<td>17.375</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>19.25</td>
</tr>
<tr>
<td>20</td>
<td>20.25</td>
</tr>
</tbody>
</table>

### PLUCK CHART OF PUS_SCOR MEANS

<table>
<thead>
<tr>
<th>Age</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15.625</td>
</tr>
<tr>
<td>16</td>
<td>16.5</td>
</tr>
<tr>
<td>17</td>
<td>17.375</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>19.25</td>
</tr>
<tr>
<td>20</td>
<td>20.25</td>
</tr>
</tbody>
</table>

Mean Score by Grade Level

![Block Chart of Pre_Score Means](image)

![Block Chart of Pug_Scor Means](image)
Mean Score by Socioeconomic Status

**BLOCK CHART OF PLE_SCORE MEANS**

[Diagram showing data distribution with socioeconomic status levels, possibly with stars or bars indicating mean scores.]

**BLOCK CHART OF PRE_SCORE MEANS**

[Diagram showing data distribution with socioeconomic status levels, possibly with stars or bars indicating mean scores.]