

REACTION OF HOME ECONOMICS COLLEGE
STUDENTS TO AN AUDIOVISUAL MULTI-
MEDIA CONSUMER EDUCATION
PRESENTATION

By

DONNA LYND WARD //

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

1971

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1973

JUN 1 1973

REACTION OF HOME ECONOMICS COLLEGE
STUDENTS TO AN AUDIOVISUAL MULTI-
MEDIA CONSUMER EDUCATION
PRESENTATION

Thesis Approved:

Florence D. Kinney

Thesis Adviser

Christine J. Johnson

Elizabeth C. Kellie

D. Durham

Dean of the Graduate College

PREFACE

The writer wishes to express her gratitude to Dr. Florence McKinney, Chairman of the Home Management, Equipment, and Family Economics Department and Chairman of the Housing and Interior Design Department, for her expert guidance and patience. The writer wishes to thank Dr. Elizabeth Hilliard and Mrs. Christine Salmon for their help and suggestions. The writer also wishes to thank her parents, Dr. and Mrs. J. Q. Lynd for their support and encouragement during the completion of this study. The writer wishes to thank her husband, Lt. Sidney J. Ward III for his sacrifices, his encouragement, and his help during the duration of this project.

Indebtedness is also acknowledged to the Oklahoma State University students enrolled in HMGT 2113 course Spring Semester 1972 for their suggestions and to Miss Sue Herndon and Mrs. Joan LeFebvre, the two course teachers, for their cooperation.

The writer also wishes to thank Mr. Charles Chapman for his statistical analysis program design and production. Thanks goes also to Mr. Richard Ward for his cooperation and talent as the primary subject of the film produced.

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	Statement of Problem	4
	Objectives	5
	Assumptions	6
	Limitations	6
	Definitions	7
II.	REVIEW OF LITERATURE	9
	Consumerism	9
	Multi-Media Response	12
III.	PROCEDURE	20
	Development of the Multi-Media Presentation	20
	Development of Student Reaction Instruments	22
	Administration of Instruments	24
	Treatment of Data	25
IV.	FINDINGS	26
	Description of Multi-Media Presentation	27
	Item Analysis--Immediate and Retrospective Survey	28
	Comparisons for Different Student Characteristics	34
	Acceptance of Multi-Media . Presentation	37

Chapter	Page
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	45
Summary	45
Conclusions	47
Recommendations	49
SELECTED BIBLIOGRAPHY	51
APPENDIX A	54
APPENDIX B	60

LIST OF TABLES

Table	Page
I. Student Responses on Immediate and Retrospective Surveys	30
II. Student Responses to Combination of Media According to Residence	35
III. Student Responses on Immediate Survey to Its Educational Worth and Their Previous Exposure to Multi-Media	36
IV. Student Rating on Immediate Survey of Media According to Year in College	36
V. Student Responses on Immediate Survey to Educational Experience by Major	38
VI. Student Responses by Class Level to Multi-Media Presentation	39
VII. Student Responses by Favorite Educational Presentation to Use Multi-Media in Other Home Economics Courses	40
VIII. Student Responses by Class Level to Recommendations for Use in Home Economics Courses	42
IX. Student Responses on the Basis of Residence to Recommendation for Use in Home Economics Courses	42
X. Student Responses on Retrospective Survey to Favorite Educational Presentations as to Amount Multi-Media Aided Study	44

CHAPTER I

INTRODUCTION

Several books have been published recently indicating there has been flagrant misrepresentations of products and practices to consumers. Among these books is The Innocent Consumer vs. The Exploiters by Sidney Margolius which cites over two hundred pages of examples of the exploitation of consumers by big and small businesses. Through the efforts of Ralph Nader, Ester Peterson, Mr. Margolius, and others, consumer "protection" legislation has been brought into the public's attention and in several cases certain consumer deception policies of advertising, labeling, purchasing, and packaging have been corrected. Yet there are new pitfalls, and new gimmicks to be contended with by honest but ignorant consumers. To a consumer who approaches the marketplace expecting to purchase exactly what the advertisers have promised at a "reasonable" price, the trip to the marketplace may be disillusioning.

Unfortunately if consumers are deceived, their response is to harangue the government for allowing such practices to exist. They demand legislation and law enforcement which is good but takes a great deal of time and money. Often the activities are illegal but as

soon as some illegal business is curbed, another springs up to fill the void. The best protection for consumers is their own education in consumer rights and practices.

The consumers themselves are the ones who must take the initiative to protect themselves. If interest is generated to the extent that consumers are motivated to report all illegal practices and to think for themselves, no matter what the legislation, the consumer would be deceived less often. If interest is generated in each consumer, wise buying could be practiced as each person attained consumer knowledge in a formal or informal manner. As the market activities and consumer legislation change throughout a consumer's lifetime, he can be protected if his interest in truthful dealings and the ability to think clearly for himself remains intact. To generate interest in the truthfulness as well as the deception involved in the market today should be a primary objective of consumer educators.

Interest is sometimes generated by approaching a familiar thing in a new way. In formal education, media has become one way of generating interest and a way of presenting a familiar thing in a new way.

Presently at the primary level disadvantaged children, mentally and physically handicapped children and even unmotivated children have discovered dynamic interests in learning through media. The youngsters now entering school are fast becoming the most film

literate group of students yet. With their pre-school training at home (with "Sesame Street", "Discovery", "Kaptain Kangaroo", and other educational programs) and the fantastic strides made in primary educational audiovisual materials plus the research work now being done on the effects of learning through media for this age, these children should find learning exciting (Allen, 1971).

Progressively more advanced educational materials are gradually being developed to teach students at higher grade levels. More elementary and secondary schools are incorporating media into the educational programs.

Media used in higher education must keep stride with the primary and secondary schools in order to better approach these highly critical, film-literate, knowledgeable students. In order to maintain the interest the children have now in learning, research will be needed on higher levels to develop equally as motivating classroom media presentations on college levels. As today's children grow and proceed to college, the learning facilities and techniques used will have to be created to specifically interest more sophisticated, more film-literate, and more critical viewers (as the youngsters today will become as they see more and better media presentations).

One development in media presentations is called either multimedia or multi-image presentations. These involve audio equipment

and various visual equipment used simultaneously to draw contrasts and similarities in concrete and abstract themes and ideas. Professionally produced multi-media presentations are excellent presentations but are rather rare while amateurishly produced productions are developed and used in classrooms by teachers and students. These presentations are thought to be interest stimulators and could possibly have an important place in future educational techniques.

Consumer education should create the interest needed to develop personal guidelines in each student. One goal listed by the Home Management, Equipment, and Family Economics Department is to "develop increasing competence as a consumer of goods and services for personal, family, and community well-being" (Auxier, 1967). By introducing the students of Home Management, Equipment, and Family Economics 2113 course to the study of consumers in a motivating way, their interest in the processes that occur in the market place should be increased. A genuine personal interest of consumer rights and obligations must be taken by the consumer. One way to build interest is through media. Perhaps through media new, interested, questioning consumers can be created.

Statement of the Problem

The purpose of this study is to test the impact of a 20 minute multi-media presentation on students enrolled in HMGT 2113 and

beginning the study of the consumer in the market place. A questionnaire to survey the students' impressions immediately after the presentation will be given. Three weeks later when the class meetings involved with the "Consumer in the Market Place" are finished, a retrospective impression survey will be given. (The multi-media will not be presented at this time.)

Objectives

1. To administer the multi-media presentation to students enrolled in HMGT 2113 using a personal characteristics survey for each participating student, and an immediate evaluation survey. The immediate evaluation survey is used to draw out the individual reactions and observations to the presentation.
2. To administer a retrospective evaluation survey to compare the changes in the reactions and to see the amount of retention the students had of the presentation.
3. To determine some characteristics found in students with highly favorable and unfavorable reactions in both the immediate evaluation and in the retrospective evaluation.
4. To determine the attitudes of the students toward this type of teaching aid.
5. To recommend improvements of similar presentations and areas for further study.

Assumptions

1. Students' grade point averages indicate the level of learning ability.
2. Students' majors indicate students' professional career interests.
3. Multi-media can be an effective motivator of student interest.
4. The instrument will illicit responses from students of their reactions to consumer situations.
5. Students' responses to certain questions given in the immediate evaluation and in the retrospective evaluation indicate the students' reaction to the multi-media presentation.

Limitations

1. The sample is limited to two sections of students in HMGT 2113-Resource Management for Individual and Family-enrolled during the 1972 Spring semester at Oklahoma State University.
2. The multi-media presentation is designed to be strictly an interest motivator (rather than an informational instrument) to be used to begin the study of the unit on "Consumerism" in the course HMGT 2113.
3. The retrospective reaction survey contained one question which does not correspond exactly to the mirror question on the first

survey. The question is considered "not applicable" to comparison of answers on both surveys.

4. The criteria used to match students' immediate reaction survey with their retrospective reaction survey is the student identification number.

Definitions

Audio Materials: Those using and emitting sound. Examples are tape recorders, radio, disc recordings and telephone (Dale, 18).

Audio-Visual Communication: "Designating that part of the broad field of education concerned with the study of pictorial and other iconic or analogic messages as these bear upon the learning process" (Knowlton, 5).

Audio-Visual Materials: Educational materials requiring both sight and sound senses to be used (Dale, 18).

Consumer: One who uses an article or service, one of the buying public.

Film Literacy: The ability to interpret the language of the film. Examples are long shots, close-ups, animation, line-lapse photography, dissolves (Dale, 414).

Icon: Image or picture (Dale, 13).

Market Place: A place where something is offered for sale or the imagined place where ideas, opinions, works, services are traded and tested.

Mirror Question: A question which contains the same content idea and the same choices for answers as another but is not the identical question.

Multi-image: More than one image projected upon the screen at one time. One sample is tri-image created by two slide projectors and one film projector running simultaneously (Lawson, 54).

Visual Materials: Materials using visual senses. Examples are illustrated books, pictures, silent films, slides (Dale, 18).

In this chapter the problem has been defined, the students identified, the media described. In Chapter II the literature related to multi-media presentations and to consumers and their needs will be presented. Chapter III and IV will describe the materials, discuss the students reactions to the multi-media presentation, and relate the overall reactions to various student characteristics. Chapter V will include a summary of findings and this researcher's recommendations for further research.

CHAPTER II
REVIEW OF LITERATURE

Consumerism

From the Survey Research Center of the University of Michigan, Katona (1968) presented to the Subcommittee on Banking and Currency his findings from consumer surveys which showed people with high incomes and substantial education are no better informed than people with low incomes and little education. These findings are depressing when future national economic policies are influenced by the individual consumers who under the free enterprise system indirectly control how their wants and needs for goods and services are satisfied (Wilson, Eyster, 1961). If the present formal educational system does not improve the quality of consumer knowledge, then changes in the educational approach must be made.

Francis T. Tuttle wrote in the introduction to the Curriculum Guide to Oklahoma Home Economics Education Consumer Education (1969):

Part F of the Vocational Education Amendments of 1968 (Public Law 90-576) makes it clear that the Congress of the United States intends that more emphasis be put on the consumer aspects of the home and family education.

Efforts to educate the consumer must be increased. Learning opportunities must be provided for individuals trying to cope with increasingly complex consumer problems. While our nation is dedicated to providing employment for its citizens, it must also be dedicated to educating people to make maximum use of their resources. Learning to earn and learning to use more wisely what one earns contributes greatly to the quality of our way of life.

Dixon (1968) expressed the idea that consumers who enter the market armed with facts are less likely to be misled with false advertising and persuasive sales people. He felt that home economics curricula could provide excellent consumer education opportunities and that through the exposure to the consumer education available, most families could manage their personal finances successfully.

The philosophy of consumer education in the 1969 Oklahoma Home Economics Education Consumer Education Curriculum Guide

(page 9) stated:

The nation's present level of technological development and prospects for the years ahead may create confusion and chaos for the consumer lacking in knowledge, skills, understandings, and concepts on which to base decisions. While technology has brought unprecedented abundance and opportunity, it has exposed the consumer to unparalleled complexities and hazards . . . Technological advancements have created a more urgent need for better informed, alert consumers who are able to operate effectively in earning resources, planning their use, and in exchanging resources for goods and services in the market place.

Excellent explanatory support is given by (Schoenfeld, Natella, 1966) for the need for change in consumer education. They believe that the impact of the potential consumer upon production is of broad

social concern and that the realization of this fact leads to changes in attitudes and behavior in one's role as a consumer. They continued:

Consumer education should not be treated as a "how to" subject. The consumer should develop an appreciation for the interests and needs of all elements of society and should shoulder equal responsibility among them for increasing the level of living. The building of new attitudes on the part of the consumer requires that he develop an awareness of the economic and moral truism that one does not get anything for nothing (page 342).

Within the book, Markets of the Seventies (1968), the editors of Fortune magazine predicted that the future economic prosperity of the United States depended to a great extent upon the intensity of consumer demand and changes in the public demands upon business and government policies. The massive rise in salary of both white and blue collar workers since 1959 has increased the buying power terrifically. In 1959 the editors found about 17 percent of all family units had incomes of \$10,000 or more after federal taxes. In 1967 the figure was up to 35 percent and in 1975 it is predicted to be 50 percent (page 102). At the same time consumers were found to have piled up a great deal of debt between 1962-1966. The consumer credit outstanding rose from 16 percent of total disposable income in 1961 to nearly 19 percent in 1966. While the spending increased the amount of income saved decreased considerably. For instance, the rate of savings in 1957-61 was 6 percent (6.0%). This rate was determined by the Department of Commerce as the percentage of total disposable income left over after personal expenditures. In

1959-65, the rate of savings was five and four tenths percent (5.4%) while in 1966 the rate was five and three tenths percent (5.3%) (page 8).

As consumers in the United States receive more income, they spend more and save less. This ironic crisis could be remedied by prevention in the form of consumer education given in a motivating manner. The introduction of multi-media presentations as part of the teaching method in "consumerism" provides the opportunity to build contrasts and similarities in given familiar situations and to begin to build interests in consumer problems and solutions.

Multi-Media Responses

Research in media increases each day with increasing complexity. Unfortunately some media research findings conflict with findings in other research and even experts disagree.

One of the largest and most publicized study of multi-media was done at EXPO 67. The experiment in multi-media gave the visitors at EXPO 67 a chance to be participants in a multi-media experimental exhibit shown there. (Joel, 1967 and Low, 1968.) The exhibit was popular because it allowed visitors to become part of a huge scene provided through a unique media arrangement. The reactions of the crowds of visitors revealed they were interested, surprised, and literally engulfed by what they saw.

They saw from inside a crib a scene involving a twenty foot infant in the crib and a huge mother and father beyond the crib bars. The idea was to so involve individuals in the multi-media that they would experience size as an infant experiences it. This experiment in multi-media was considered quite successful in helping the audiences to realize the unique dynamic dimension multi-media can bring into a simple scene.

Rosenthal (1969) through his study of educational technology found that one effect media has is the projection of real life situations with the portrayal of causal relationships between people and things. This effect is important when designing a production dealing with the consumer.

One of the most basic mechanisms of learning is by association (Gagne, 1965). Low (1968) throughout his research of multi-screen presentations at EXPO 67 outlined his theory that complex visual association is especially crucial to memory and to conceptual learning. From his work, he derived that:

Our awareness of several sensory simultaneous stimuli is probably one of the reasons why memory seems locked in the mind in such a peculiar manner. . . . Perhaps no single impression triggers certain memory combinations, but a group of impressions received simultaneously often may trigger long forgotten memories.

D. C. Perrin (1969) discovered simultaneous images interact upon each other at the same time and are of significant value in making comparisons or relationships, dichotomies, alternatives,

differences, likenesses, and other forms of comparisons as several elements determine the total meaning.

Millard (1964) found that presentations involving relationships, parts to a whole, diagrams of apparatus, model to object, form to function, and the like, can be dramatically displayed in a multi-media, multi-image classroom presentation.

Simultaneity is a key in visual language and interpretation.

Langer (1942) writes:

Visual forms, lines, colors, proportions, etc., are just as capable of articulation, ie. of complex combination, as words. . . . The most radical difference is that visual forms are not discursive. They do not present their constituents successively, but simultaneously so that relations concerning a visual structure are grasped in one act of vision. Their complexity consequently is not limited as the complexity of discourse is limited by what the mind can retain from the beginning of an apperceptive act to the end of it.

McFee (1969) warns the media presentation designer that although the multi-image, multi-media presentations have a unique aspect in their complexity, order is needed. Visual ordering makes messages of content easier to understand. Students respond so fast to stimuli that they are unaware of the process of assimilation. To avoid confusion, planning is imperative.

Multi-media brings several elements together to develop a total meaning but these elements do not compete for attention.

Charles Hoban (1961) writes:

There is little firm evidence in the research literature that any medium of instruction is intrinsically or invariably superior to any other . . . a single method or a single medium of instruction will not suffice, even if it is only because it will become unbearably monotonous. Variety among instructional media seems to be more important than a monopoly. There is reason to believe that media are complementary, noncompetitive, and that a combination of media in the instructional process is superior to any one alone.

Anderson (1969) discovered that media which draws upon the same human senses (filmstrips with printed words on the screen, silent films with captions, etc.,) are boring to the students because the cue mechanisms are identical. The senses (visual or audio) react simultaneously to the same cues and collide with the reasoning logic. Multi-media presentations utilizing visual cues with audio cues can play an important part in counter-acting this effect.

Galfo (1965) found in his study that when pupils are subjected to only audio or only visual presentations, they learn less than when the audio and visual elements are presented simultaneously. Hartman (1961) also researched pictorial symbolism and found pictures or icons to be "pregnant with meaning but the meaning is often ambiguous." The use of words, music, and dialog are helpful in structuring the ambiguity.

Pascal Trahanis (1971) gave an outline to design concerns in planning the complex multi-media presentation. Familiarity with the media used is one important design concern. He suggested a tri-

image presentation with a well organized visual script as well as a good audio arrangement.

Historically, experimentation with multi-image goes back to 1896 (Lawson, 1971). The first serious development of the technique, however, began in 1927 when a Frenchman by the name of Claude Autant-Lara developed a process called HYPOGONAR, whereby not only multiple screens were used but also varied screen sizes. In filming a story about hunting gold in the north, he matched action on the main screen with smaller side panels shaped for appropriate views--e.g. vertical for pines, horizontal for snow. Since that time, the technique has been tested in a variety of formats. It has been given a considerable boost by expensive shows staged at world expositions as Expo 67 and Hemisfair, and others.

Multi-media presentations were adapted for education by James D. Finn and Don G. Perrin in the early 1960's. They put together and presented one of the first educational multi-media multi-image productions at the 1962 Developments in Audio Visual Instruction convention in Kansas City. It was so successful that a course in multi-media production was inaugurated by the Department of Instructional Technology at The University of Southern California. The decade of the 1970's should see routine development of the multi-media presentations in education as well as in business and industry.

Multi-media presentations can add a new dimension to a simple scene and add versatility to an existing classroom presentation. Multi-media takes advantage of the fact that students can learn many things from many sources at one time. Multi-media presentations could make learning exciting just because of the modern exciting nature of the presentation.

In order to know the level of the film literacy of the future and present students, media specialists are gravely concerned about the lack of standardization or quality testing of audiovisual materials. Including textbooks, less than one percent (0.9%) of all educational materials are tested and reviewed before their release. The judges are usually teachers and film makers who already know the subject matter and are not subjective learners (Komoski, 1971). One media specialist suggests Ralph Nader's raiders are needed to investigate the media producers products in terms of the real consumers, the students. Some drawbacks derived from the teachers or film makers' "objective" review of the presentations are the (1) lack of explanation in the film unnoticed by teachers who are knowledgeable in the subject covered, (2) coverage of too much material in a film understandable to those already competent in the field, and (3) films not aimed at the level or competence of the students. Therefore, a system where students are allowed to evaluate the depth of richness in an educational presentation is needed.

Research in education is needed especially in media presentations where one tends to practice "selective attention" (Krech and Crutchfield, 1955) by turning out what has been heard or seen before or what has been found boring. New uses of the existing equipment and materials are important considerations in media presentations since the equipment and materials can be quite expensive especially if professionally produced. If a presentation or subject that was found boring can have a new aspect added to it then the old production becomes of greater educational value. If inexpensive equipment and materials can be used to add interest to what was found before, the financial aspect is not a burden. Multi-media presentations are designed to add new dimensions to subjects but to add these dimensions at a small cost (Perrin, 1969).

As Walter Lippman said (1949):

Man has invented ways of seeing what no naked eye could see, of hearing what no ear could hear, of weighing immense masses and infinitesimal ones, of counting and separating more items than he can remember, he is learning to see with his mind vast portions of the world that he could never see, touch, hear, or remember. Gradually he makes for himself a trustworthy picture inside his head of the world beyond his reach.

Media takes factual knowledge adds elements of beauty, surprise, interest, familiarity, and contrast to create an encompassing educational experience. In contrast to a textbook, media presentations are thought to have a greater impact upon the students.

Thomas Edison saw the impact of media upon education in 1930.

He said:

Maybe I'm wrong but I should say that in 10 years text-books as the principal medium of teaching will be as obsolete as the horse and carriage are now. I believe that in the next ten years visual educational process--the imparting of exacting information through motion picture camera--will be a matter of course in all schools. The printed lesson will be largely supplement . . . Books are clumsy methods of instruction at best, and often words of explanation must be explained (Runes, 1948, pp. 65,78).

Media offers more to students if it can be tested and standardized. Consumer advocates have argued the points of standardized labels, sizes, weights, and qualities in products in the market place. Students are consumers requesting testing and standardizing of their educational tools. The importance of consumerism in the daily lives of those in the academic environment can be viewed through media. If money is spent on courses, texts, films, or services the students do not value, then the money is wasted as surely as in a market place. If new approaches or uses can be applied to courses, texts, films, or services and these approaches are considered valuable by the students, then more satisfied consumers of education are created.

In Chapter III, Procedure, ways of measuring the reaction of a specific group of students to a multi-media presentation for a unit on "Consumerism" will be described.

CHAPTER III

PROCEDURE

This study was planned to evaluate the students' reaction to a classroom multi-media presentation on "Consumerism" in the course HMGT 2113. The multi-media presentation approach was chosen for two reasons: (1) the unique nature of the multi-media presentation to draw contrasts and similarities between different cultures and market-places, and (2) the wide student acceptance of the use of multi-media in the classroom. As an assistant home demonstration agent who worked with low income people in consumer education programs, the writer discovered the effectiveness of projecting familiar situations with few explanatory words (spoken or written) to stimulate thinking and build associations. The second phase of this study was to evaluate the students' responses immediately and at the end of the study unit. The study hoped to find a relationship between personal characteristics and the effectiveness of a multi-media presentation.

Development of the Multi-Media Presentation

Developing and coordinating the multi-media presentation concerning the various consumers in international market places

involved utilization of two slide projectors, one audio tape recorder, and one super 8mm film projector. The steps involved were developing a script for the silent super 8mm eight minute color film. The film script was planned to include situations with which most, if not all, the student viewers as consumers would be familiar. The scenes involved non-functioning pay telephones, carbonated drink machines, and self-service car washes and the reactions of the young consumer involved. Scenes of actual students standing in lines for various services were also planned. The times and places for filming were planned and coordinated with the cameraman and student subject.

The writer photographed the movie as planned using various lighting situations and using completely amateur actors and regular consumers in actual situations. The super 8mm camera featured a close-up lens for the "zoom" effect or the enlarged detail effect. One hundred 2 x 2 inch color slides copied from various international magazines with a 35mm camera picturing consumers in a wide variety of bartering, buying and selling situations were assembled.

The audio presentation to accompany the film and slide presentation included fifteen minutes of familiar popular music.

The entire multi-media presentation was pre-tested with students comparable to the target group and with faculty present to make suggestions for improvements. All of this was done in preparation for presentation of the multi-media presentation to the actual

test group of students in HMGT 2113. The students reacted immediately to an immediate evaluation survey. Three weeks later the retrospective evaluation survey was administered to students to compare reactions of students.

Development of Student Reaction Instruments

A review of literature in related fields of research suggested the questionnaire as the most appropriate type of instrument in the design of this study. Each type of instrument has advantages and disadvantages, but the most consistent way of recording first impressions of a group simultaneously is thought to be the questionnaire survey. Considering the number of variables and the limited number of participants, the comparison between the retrospective evaluation survey and immediate evaluation survey could be made most effectively with the questionnaire instrument. For these reasons the questionnaire method was chosen as the design for the study.

The development of the survey questionnaire began after the multi-media presentation was coordinated and pre-tested. Several examples of questionnaires were studied and reviewed as well as the Educational Films for Learning Association review sheets. The review sheets were rejected because the questions were too general and did not allow for objective, closed end questions. With the help of faculty members and participants in the multi-media pre-testing sessions, a questionnaire was designed (Appendix A).

The questionnaire was designed to record the student's characteristics, student's reaction to the presentation, and student's understanding of the presentation. The first page was a general survey of the personal characteristics of the participants. The questions covered the student's age, residence, marital status, major, class level, grade point, amount of international travel, exposure to various educational techniques, and preferred educational presentation.

The second and third pages of the questionnaire asked specific questions about the situations portrayed and asked for reactions to this multi-media presentation.

The student number was recorded for identification of the student's profile on the immediate reaction survey and the retrospective reaction survey.

The immediate survey had sixteen multiple choice questions covering specifics about the film (theme, certain situations, etc.,) and the student's opinion about the presentation (changes, effectiveness, good parts, amount of confusion, recommendations, etc.,). Each question was to have only one answer.

The retrospective evaluation survey was given three weeks later. It was designed to mirror certain questions given in the immediate reaction survey in order for the researcher to draw a comparison in identical questions and corresponding answers. The retrospective evaluation survey (Appendix B) was placed on pink paper

for easier and immediate identification. The retrospective evaluation survey contained thirteen multiple choice questions of which ten questions were identical to questions asked on the immediate reaction survey. Other questions included a review of learning of consumers, review of the aid of the presentation to the student, and preference of another viewing of the multi-media presentation.

Administration of Instruments

The multi-media presentation and immediate reaction survey were given March 10, 1972, in the audiovisual room 313 in the Oklahoma State University Library. The room is equipped with a special rear screen projection screen and a podium wired for slide changes. Sixty participants viewed the presentation and completed the questionnaire related to the immediate reactions. The retrospective survey was given at the beginning of the class period April 7, 1972. During the period from March 10 to April 7, 1972, the two regular teachers in the HMGT 2113 course presented material through class discussions and lectures. There were eight class meetings of 50 minutes for presenting the subject matter related to consumers and their roles. These two instruments provided the data for this study.

Treatment of the Data

The data was tabulated in two ways. The questionnaires were first matched to compare the identical questions and the responses. A simple frequency tally was taken. Next an analysis was made by computer. Contingency tables were made comparing each personal characteristic factor with each response to the immediate reaction and retrospective surveys. The computer set up was basically an IBM System of 360 model 65. The analysis was a BMD Series 0-25. The computer featured 2401-25 tape drives, 1403 line printers, 2260 visual display terminals, IBM 2314 direct access storage devices with 15 disc drives, 2501 card reader with OMR attachment, 2501 card reader, IBM 2741 typewriter terminals, DATEL 30 typewriter terminals and 2540 card reader and punch. The program producer was Charles Chapman who had chi square figurations and row, column, and percentage tables constructed in the printout.

After the tabulations were completed and the data analyzed, conclusions were drawn and recommendations were made. Chapter IV will present the findings; Chapter V, the summary, conclusions and recommendations.

CHAPTER IV

FINDINGS

"Do students want multi-media presentations?" "Do students remember multi-media presentations?" and "What personal characteristics seem to have a bearing on the favorable or unfavorable reaction of the students to the multi-media presentation?" These are questions related to the objectives of this study: to determine the attitudes of the students toward this type of teaching aid, to see the amount of retention the students had of presentation, and to determine some characteristics found in students with highly favorable and unfavorable reactions in both the immediate evaluation and in the retrospective evaluation.

The sample was two sections of students enrolled in HMGT 2113 Resource Management for Individual and Family at Oklahoma State University during the Spring Semester 1972. There were 60 students who viewed the presentation (59 were female and one was male). The multi-media presentation was made at the beginning of their study unit on consumerism. After the multi-media presentation, the students attended eight class meetings on the subject of the Consumer in the Marketplace. At the end of the unit, each

student was given a retrospective evaluation survey to answer. Unfortunately only 53 students were included in the final sample as seven students were eliminated due to their mistaken student identification numbers which did not correspond on both surveys. After a general tally of student answers in the immediate and retrospective surveys different variable comparisons were made.

Description of Multi-Media Presentation

The multi-media presentation was designed to combine several elements to portray a simple theme. The presentation was about 20 minutes long and included Super 8mm silent color film, one hundred 2 x 2 inch color slides, and a 20 minute tape of popular music. The film was made in Stillwater using Stillwater Cheese Festival, the Oklahoma State University Student Bookstore and Student Union Ticket office and enrollment lines. The film contained several scenes of "affluent consumers" driving into drive-in mailboxes, drive-in bank windows and other drive-in services. In one scene a small child getting gum from a gum machine portrayed a satisfied consumer. Other scenes involved a young man being frustrated by machines as the car wash, the pay telephone, and a carbonated drink dispenser. The film was accompanied by popular instrumental music (theme from "True Grit") to set the mood of movement and spiritedness. As the film stopped at the last frame

showing a delighted young male consumer, the music changed, the film faded out, and the slides were projected from the rear screen projectors.

The slides were shown two at a time but not projected simultaneously. The accompanying music was a rhythmic, free-spirited, instrumental ballad (theme from "The Reivers") to change the mood somewhat as the slides portrayed consumers and market places from around the world. The slides were masked so the images were of different sizes and shapes.

The film was run again at the end of the slide show with the slides projected on either side of the projected film. The tri-image phase of the presentation drew contrasts between the problems of the affluent consumer and the less affluent consumers. This part was accompanied by a fiercely rhythmic protest chant ("Someday" by the Chicago Transit Authority) that set a mood of discontent and protest. After the film and slides ended, there were three seconds of silence as the last slides portrayed the Oklahoma State University library and a modern university building in Egypt.

Item Analysis--Immediate and Retrospective Surveys

Immediately following the multi-media presentation the students were presented the three page questionnaire to register

their immediate reaction to the multi-media presentation. Various questions were asked that implied the students' general reaction to the presentation.

The retrospective evaluation was given three weeks later. It was designed to mirror certain questions given in the immediate reaction survey in order for the researcher to draw a comparison in identical questions and corresponding answers. The retrospective evaluation survey contained thirteen multiple choice questions of which ten questions were identical to questions asked on the immediate reaction survey.

A general comparison of student responses on the immediate and retrospective evaluation is shown in Table I. This data shows the students remembered what went on during the presentation and remembered what they would have changed.

Most students (62.3%) gave the same answer for the main theme as asked in Item 1 on the immediate evaluation and Item 1 on the retrospective evaluation. The students were given five choices of possible answers which included "Unawareness of consumers place in society", "Affluency causes apathy", "Technology is fine until it breaks down", "Consumers need to be knowledgeable", and "Other". On the first reaction survey seven students chose the first answer, eight chose the second, four chose the third, 31 chose the fourth while three chose the last. On the retrospective

survey ten chose the first answer, while three chose the second, three students chose the third, 37 answered with the fourth choice and none answered with "other". Thus on both surveys the most frequent answer for theme of multi-media was "Consumers need to be knowledgeable".

TABLE I
STUDENT RESPONSES ON IMMEDIATE
AND RETROSPECTIVE SURVEYS

Total Students = 53

Key Idea of Statement	<u>Item Number</u>		<u>Students Responding Identically</u>	
	Immediate	Retrospective	No.	%
Theme	1	1	33	62.3
Boy at pay telephone	4	3	50	94.3
Boy at car wash	8	4	40	75.4
Boy at Pepsi machine	10	5	40	75.4
What to change	11	7	35	66.3
What liked best	12	6	35	66.3
Quality of educational experience	13	8	41	77.4
Recommend to others	15	12	32	63.7
Use of multi-media in other H. Ec. classes	16	13	48	94.1

Most students (77.4%) did not change their minds over the three week period as to the richness of the learning experience as asked in Item 13 on the immediate evaluation and in Item 8 on the retrospective evaluation. Students were given four choices as possible answers to the question concerning the quality of the educational experience received from the multi-media presentation. The choices were: "rich"; "average"; "below average"; "waste of time". On the immediate evaluation five students felt the educational experience was "rich", 37 felt it was "average", eight felt it was "below average", while three thought it was a "waste of time". On the retrospective evaluation three felt it was a "rich" experience, 44 felt it was average while six students felt the multi-media presentation was a "waste of time".

The immediate and retrospective evaluation contained mirror questions concerning specifics in the presentation. Question 4 on the immediate evaluation and question 3 on the retrospective evaluation asked whether or not the students agreed with the actions of the boy cheated by the pay telephone (the boy inserted his money, did not complete his call, did not get his coin back, kicked and pounded the machine and then walked off unsatisfied). On the immediate survey 50 students agreed and two disagreed with the actions (one student did not answer) while on the retrospective survey 50 students agreed with the actions while three disagreed.

Question 8 on the immediate evaluation and question 4 on the retrospective evaluation covered the actions of the boy who wanted to use a self service car wash. The students decided if the boy was representative of consumers who are: "frustrated", "knowledgeable", "affluent", "satisfied" or "apathetic". On the retrospective survey 49 answered with the first choice, none answered with the third choice and four answered with the fifth choice.

Question 10 on the immediate evaluation and question 5 on the retrospective evaluation asked whether or not the student agreed with the actions of the boy frustrated by a carbonated drink machine.

Twenty seven agreed (on the immediate evaluation) with the boy's actions in the film while 26 disagreed. On the retrospective reaction 20 students agreed with the boy's action while 33 disagreed. This indicates a change in attitude that occurred in seven students during the study of the consumers in the market place.

Item 11 on the immediate evaluation and item 7 on the retrospective survey questioned what the students liked best about the presentation. Seven possible choices for answers were given: "theme", "combination of media", "film", "slides", "room", "nothing", and "other". On the immediate evaluation, four liked the theme best, 31 liked the combination of media best, nine liked the film best, six liked the slides best, three liked nothing. Retrospectively three students liked the theme, 30 liked the combination

of media, nine liked the film, seven liked the slides, one liked the room, three liked nothing best.

Item 12 on the immediate evaluation and item 6 on the retrospective evaluation asked what the students wished to change and gave seven possible answers similar to the ones given for the previous question on what they liked best. On the immediate evaluation one student wanted to change the theme, six wished to change the combination of media, two wanted to change the film, six wished to change the slides, none wanted to change the room, 22 wished to change nothing, while 16 listed other things they wished to change. On the retrospective survey, three students wished to change the theme, eight wished to change the combination of media, two wished to change the film, six wanted to change the slides, five wanted to change the room, 19 wanted to change nothing, while eight wished to change "other" (one student did not answer). There was a change of answers in 19 students over the three week period.

Item 15 on the immediate evaluation and item 12 on the retrospective evaluation questioned the students on their recommendation of the presentation to other students. Forty one students said they would recommend it while 15 said they would not. Three weeks later 10 said they had actually recommended it while 43 said they had not.

The students wanted other Home Economics courses to use multi-media presentations (question 16, immediate and question 13,

retrospective). On the immediate evaluation 43 students wanted other courses to use multi-media while 10 did not. Retrospectively 40 wanted other courses to use multi-media while 13 did not.

Comparisons for Different Student

Characteristics

To most readily identify personal characteristics that might have an influence upon the student reaction to the multi-media presentation, an analysis of each personal characteristic (marital status, major, grade point, etc.) was made in comparison to the answers given by the students in regard to the multi-media presentation.

In Table II data is set up to show for question 11 (on the immediate survey) and for question 7 (on the retrospective survey), the two answers most pertinent to the students' overall reaction to the presentation in relation to their place of residence.

In item 11, the students were asked what they liked best about the multi-media presentation. They were presented with six possible answers, theme, combination of media, film, slides, room, nothing, or they could state their own answer. The majority liked the multi-media best; 31 of 53 reacted this way to the immediate survey and 30 of the 53 on the retrospective survey. There were three students who rejected the first presentation completely and three who responded similarly (nothing) on the retrospective survey.

TABLE II
STUDENT RESPONSES TO COMBINATION
OF MEDIA* ACCORDING TO RESIDENCE

Residence	Liked Media Best		Liked Nothing	
	Immediate	Retrospective	Immediate	Retrospective
Dorm	15	16	0	1
Apt.	5	5	3	1
Sorority	7	5	0	0
Other	4	4	0	1

* Four possible answers omitted from table, therefore, the number of students does not equal 53.

Table II shows the dormitory and sorority inhabitants have higher acceptance of the media presentation. This may be because they are more likely to be underclassmen, and more eager for new learning experiences away from the traditional formal presentation techniques.

Table III data shows only half the group (28 of 53) had experienced multi-media presentations before March 10, 1972. Of the 25 students who had not experienced multi-media presentations before, 21 rated it as an average or rich experience.

The data in Table IV shows the relation between class level and the rating of the richness of the educational experience received from the multi-media presentation. The lower classmen appear to

TABLE III
STUDENT RESPONSES ON IMMEDIATE SURVEY
TO ITS EDUCATIONAL WORTH AND THEIR
PREVIOUS EXPOSURE TO
MULTI-MEDIA

Rating of Educational Experience	With Previous Multi-Media Experience		With no Previous Multi-Media Experience	
	N = 28	%	N = 25	%
A Rich One	4	14.3	1	4.0
Average	17	60.7	20	80.0
Below Average	4	14.3	4	16.0
Waste of Time	3	10.7	0	0.0

TABLE IV
STUDENT RATING ON IMMEDIATE SURVEY
OF MEDIA ACCORDING TO YEAR IN
COLLEGE

Total Students = 53

Rating of Media As an Educational Experience	Freshmen		Sophomore		Juniors		Seniors	
	N	%	N	%	N	%	N	%
Excellent	0	0	4	12.1	1	9.1	0	0
Average	4	100	21	63.6	8	72.7	4	80
Less than average	0	0	6	18.2	1	9.1	1	20
Waste of time	0	0	2	6.1	1	9.1	0	0

be more flexible in receiving such educational experiences, since four out of four freshmen and 25 out of 33 sophomores found the presentation "average" or "excellent".

Acceptance of Multi-Media Presentation

Table V data relates the rating given the educational experience of the multi-media by the students according to their majors. One might assume students majoring in Home Economics Education as well as Family Relations and Child Development are considering the teaching profession as possible career choices and as such are interested in new teaching techniques. Students of Home Management might have simply enjoyed the new approach to a familiar subject.

The acceptance of multi-media by the freshmen and sophomores is re-emphasized by the data in Table VI. Four (100%) of the freshmen students who viewed the presentation said they would recommend it immediately to other classes while 25 (78.0%) of the sophomore students would recommend the presentation. Only 70 percent (7) of the juniors and 50 percent (2) of the seniors responded that they would recommend the presentation. On the immediate evaluation, 37 of 50 students said they would recommend this presentation to other students, however, on the retrospective survey only 10 of 53 (18.9%) said they had actually recommended multi-media presentations to their peers.

TABLE V
STUDENT RESPONSES ON IMMEDIATE SURVEY
TO EDUCATIONAL EXPERIENCE BY MAJOR

Total Students = 49*

Rating of Multi- Media as an Educational Experience	Major											
	CTM		FRCD		HMGT		FNIA		HID		HEED	
	N	%	N	%	N	%	N	%	N	%	N	%
Excellent	0	0	2	11.8	1	50	0	0	0	0	2	18.2
Average	7	77.8	10	58.8	1	50	4	66.6	4	100	7	63.6
Below Average	1	11.1	4	23.5	0	0	1	16.6	0	0	2	18.2
Waste of Time	1	11.1	1	5.9	0	0	1	16.6	0	0	0	0

*Two students were non-Home Economics majors and 2 students did not respond to the question.

TABLE VI
STUDENT RESPONSES BY CLASS LEVEL TO
MULTI-MEDIA PRESENTATION

Total Students = 53*

Class Level	Would Recommend				Have Recommended			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
	Immediate				Retrospective			
Freshmen	4	100.0	0	0	1	25.0	3	75.0
Sophomores	25	78.1	7	21.9	4	12.1	29	87.9
Juniors	7	70.0	3	30.0	4	36.6	7	63.6
Seniors	2	50.0	2	50.0	1	20.0	4	80.0

* There are only 50 students responding immediately because 3 chose not to answer.

The data in Table VII shows that students who indicated multi-media presentations as their favorite kind of educational presentation recommended multi-media presentation for other Home Economics classes. The students chose their favorite type of educational experience from these choices: individualized learning packets, audio recordings, slides, multi-media presentations, films, and lecture. In both questionnaires the students gave their recommendation for use of more multi-media in other Home Economics courses. On the immediate survey, the 12 students who liked multi-media

recommended multi-media for other courses 100 percent. Twelve of the 15 students who prefer lecture recommended more multi-media be included in Home Economics courses. Retrospectively, the recommendation was lower (77.3%) or 11 of 15 students recommended it.

TABLE VII

STUDENT RESPONSES BY FAVORITE EDUCATIONAL
PRESENTATION TO USE MULTI-MEDIA IN
OTHER HOME ECONOMICS COURSES

Total Students = 53

Favorite Educational Presentation	Total Responses	Include in Home Economics courses more multi-media			
		Immediate		Retrospective	
		Yes	No	Yes	No
Individualized learning package	4	3	1	3	1
Slides	1	1	0	1	0
Multi-media	12	12	0	11	1
Films	21	15	6	14	7
Lecture with visual aids	15	12	3	11	4

From the data in Table VIII it would appear that some seniors would prefer to forego any multi-media presentations in the future while freshmen seem to be especially receptive to the idea of future multi-media presentations. The freshmen were 100 percent in favor of future presentations, sophomores had 28 out of 33 (84.8%) in favor while juniors had 9 out of 11 (81.0%) recommending using multi-media for other Home Economics courses. Three of five seniors or 60.0 percent did not recommend multi-media presentations for other Home Economics courses.

Place of residence would appear to have an influence upon the acceptance of multi-media as seen from the data in Table IX. Dormitory and sorority inhabitants have high acceptance while apartment and "other" (those living at home or commuting students, etc.) dwellers are not quite as receptive to multi-media. Perhaps because the dormitory and sorority residents are more likely to be of lower class levels is the reason for higher acceptance; thus simply restating the assumption that the freshmen and sophomores are more receptive to the multi-media presentations.

Going back to this writer's introduction, one could draw the conclusion that the new crop of film literate students produced from great strides in audiovisual techniques incorporated in the elementary and secondary schools as well as in higher education has affected the current freshmen and sophomore students.

TABLE VIII
STUDENT RESPONSES BY CLASS LEVEL TO
RECOMMENDATION FOR USE IN HOME
ECONOMICS COURSES

Total Students = 53

Class Level	Recommend multi-media in other H. E. courses							
	Yes				No			
	Immediate				Retrospective			
	N	%	N	%	N	%	N	%
Freshmen	4	100	0	0	4	100	0	0
Sophomores	28	84.8	5	15.2	26	78.8	7	21.2
Juniors	9	81.8	2	18.2	8	72.7	3	27.3
Seniors	2	40.0	3	60.0	2	40.0	3	60.0

TABLE IX
STUDENT RESPONSES ON THE BASIS OF RESIDENCE
TO RECOMMENDATION FOR USE IN HOME
ECONOMICS COURSES

Total Students = 53

Type of Residence	Recommend for use in other home economics courses							
	Yes				No			
	Immediate				Retrospective			
	N	%	N	%	N	%	N	%
Dormitory	21	95.5	1	4.5	18	81.8	4	18.2
Apartment	9	60.0	6	40.0	10	66.7	5	33.3
Sorority	9	100.0	0	0	8	88.9	1	11.1
Other	4	57.1	3	42.9	4	57.1	3	42.9

From the data found in Table X one might reason that students who originally said they prefer multi-media presentations over other kinds found the presentation aided them a great deal in the study of consumers. Percentage-wise the second highest group who felt they benefited most from the presentation were those who prefer lectures with visual aids.

In summary looking back at the original objectives, this researcher found that two-thirds or more of the students had identical answers on seven of the nine mirror questions posed on the immediate and retrospective surveys (see Table I). Most of the students identified the theme of the multi-media presentation as "consumers need to be knowledgeable". The identified situation which most (49 of 53) students answered the consumer was "frustrated" was portrayed by the boy at the self-service car wash. There was a large (26 students) shift of answers on this question over the three week period indicating a change of opinion of the consumer's actions. Seven of 33 students changed their attitude toward acceptable consumer behavior as shown in the film which portrayed the boy frustrated by a carbonated drink machine.

Due to the small size of the sample, the writer was unable to use chi square tests as was planned when the study was designed. One possible trend from the survey questions may be indicated by the three students who had lived in other countries and said they found the media presentation a good experience.

TABLE X
 STUDENT RESPONSES ON RETROSPECTIVE SURVEY
 TO FAVORITE EDUCATIONAL PRESENTATIONS
 AS TO AMOUNT MULTI-MEDIA AIDED
 STUDY

Total Students = 53

Favorite Type of Educational Presentation	Amount Multi-Media Aided Study					
	A Lot		Some		Not Much	
	N	%	N	%	N	%
Individualized learning package	0	0	3	75	1	25
Slides	0	0	0	0	1	100
Multi-media	1	8.3	9	75.0	2	16.7
Films	1	4.8	11	52.4	9	42.9
Lecture with visual aids	1	6.7	12	80.0	2	13.3

CHAPTER V
SUMMARY, CONCLUSIONS, AND
RECOMMENDATIONS

Summary

This researcher chose this field of research because she recognized a trend in college students who are technically and creatively oriented towards acceptance of multi-media presentations for various class projects. An investigation into the production of such presentations was begun. After deciding to develop a presentation and after a critical appraisal of the researcher's creative and financial assets, a plan was devised to develop a multi-media presentation for the HMGT 2113 class to introduce the students to the unit on "consumerism".

The presentation was planned to be made using two rolls of super 8mm film made in Stillwater. The production would use local consumers and amateur actors in situations familiar to most consumers in a technical society. The film contained scenes of satisfied and unsatisfied consumers who had to use technology to receive or not receive the product or service desired. Several

scenes portrayed a young man being continually frustrated by machines which did not work. His reaction might be to walk or drive away, to kick or pound with the fist. The film was about five minutes long and was accompanied by popular music which set the mood of movement and spiritedness. As the movie ended, two slide projectors began projecting slides of consumers and market places from around the world. Different music accompanied this portion of the presentation and changed the mood somewhat as the various brilliant colored and dark shadowed slides contrasted the former mood of comical or angry frustration. The final portion of the presentation included a tri-image set up as the slides and film were projected simultaneously to the accompaniment of a protest chant pointing up the differences and the problems of consumers everywhere.

The sample of students who viewed the presentation were two sections of undergraduate students of Oklahoma State University enrolled in HMGT 2113 Resource Management for Individual and Family, Spring Semester 1972. The students were given a personal characteristics survey to provide the general student profile and specific individual characteristics that might have an influence upon the acceptance of the multi-media presentation. They were also given a two page Immediate Reaction Survey sheet (Appendix A) which contained sixteen multiple choice questions covering specifics

about the film and slides and covering their reaction to this presentation and to other presentations in the future.

The two sections of students contained sixty students. They followed the multi-media presentation and the answering of the Immediate Reaction Survey by attending eight classes of lecture and discussion on "Consumers in the Market Place" conducted by the two regular course teachers. At the end of the unit, a Retrospective Reaction Survey (Appendix B) was given to compare the reactions before and after their course work was completed and to compare their individual differences in answers. There were ten mirror questions that were identical on both surveys. These questions covered both specifics about the film and the reaction and recommendations of the students for this and other multi-media presentations. There were only fifty-three students in the final sample due to mistakes in the student identification numbers used for matching the immediate and retrospective reaction surveys.

Conclusions

After recording and analyzing the student answers and their personal characteristics, the researcher found that the freshmen and sophomore students said they learned more and wanted more multi-media presentations than did the upper classmen. Those students who are planning to have careers as teachers were

receptive to the multi-media presentation. Those students who had experienced multi-media presentations before the one was presented in the HMGT 2113 class wanted more future multi-media presentations than students who had not. Students who had expressed multi-media as their favorite educational technique also wanted more multi-media presentations than students who had expressed other preferences. The data correlating the answers given immediately after the presentation and three weeks later showed most students answered identically but that some answers did change over the three week period. After reviewing each question's change in answer as compared to various student characteristics, this researcher could find no definite trends.

The students remembered what they saw in the multi-media presentation. The students remembered what they liked and what they wanted to change about the presentation. The students remembered the theme. The students wanted more multi-media presentations to be used in other Home Economics classes. The students did not change their minds over the three week period as to the richness of the learning experience; most of them considered it a rich experience.

Recommendations

Research relative to future consumer education and to multi-media educational presentations should be continued so the findings can be used to further increase the effectiveness of consumer education as well as multi-media presentations. The writer recommends this study as a model for a larger study conducted with a representative sample of students of various ages and interests, perhaps including high school students as well as adults. A study of greater scope would make it possible to complete a statistical analysis of the relationships of multi-media presentations' effectiveness and student personal characteristics.

A second possible area for study would be a comparison of professionally produced multi-media presentations and those amateurlly produced. A parallel study might determine which type of production actually allows the greatest amount of student identification with the characters and the greatest student retention of knowledge.

An investigation into the effectiveness of revising an out-dated professionally produced film into a multi-media presentation would be another researchable area of great interest to some educators.

From this study in multi-media this researcher recommends a technical set up that either uses a 16mm projector or the use of the Super 8mm film projector behind a rear screen projection room. The

Super 8mm projectors that the writer tested and used were extremely noisy and covered most audio sounds. The audio equipment used should be sufficiently large enough to project sound to the entire room and should be set up to automatically provide background for the entire presentation. Retrospectively, this writer would recommend at least one, if not more, pretesting sessions with students similar to the target group, with faculty and technicians present be held so that more meaningful criticisms and suggestions can be brought forth and so that teachers can experience the nature and theme of the presentation and make study plans accordingly.

Continuing research on consumer education using media may add to the basic knowledge concerning the consumer by increasing the consumers' interest in present and future problems.

SELECTED BIBLIOGRAPHY

- Allen, W. "Reach Many Senses with Multi-Media." Educational Screen & A. V. Guide, IIL (December 1969), 14-51+.
- Allen, W. "Instructional Media Research: Past, Present, and Future." A. V. Communication Review, IXX (Spring 1971).
- Allen, W. Readings in Educational Media Theory and Research, I, Final Report 1968, Washington, D. C.: Office of Education, Department of Health, Education and Welfare, Bureau of Research, 1968.
- Anderson, J. A. "Single-Channel and Multi-Channel Messages: A Comparison of Cognitive Meaning." A. V. Communication Review, VIIX (Winter 1969), 428-34.
- Auxier, Verna C. "Evaluation of Course Objectives of Home Management Residence Course by Students 1961 and Graduates 1967." Unpublished Masters Thesis, Oklahoma State University, 1967.
- Consumer Credit Labeling Bill, Hearings Before a Sub-Committee On Banking and Currency, U. S. Senate, 86th Congress, Washington, D. C.: Government Printing Office, 1960.
- Consumer Education, The Management of Personal and Family Financial Resources, Oklahoma State Board of Vocational & Technical Education, Stillwater, Oklahoma, 1969.
- Dale, C. A. V. Methods in Teaching. New York: Holt, Rinehart, & Winston, 1969.
- Dixon, B. W. "Universal Credit Cards." Journal of Home Economics, LX (January 1968), 33-35.
- Finn, J. D. NEA Journal, November 1960. Also Occasional Papers (Washington, D. C.: National Education Association).

- Gagne, R. Conditions of Learning. New York: Holt, Rinehart, & Winston, 1965.
- Galfo, A. J. A Study of the Effects on Pupil Achievement of Certain Audio and Visual Presentation Sequences. Final Report. Williamsburg, Va.: College of William and Mary, School of Education, Sponsoring Agency: Office of Education, Department of Health, Education, and Welfare, Washington, D.C., Bureau of Research, 1965.
- Hartman, E. "Single and Multiple Channel Communication: A Review of Research and a Proposed Model." A. V. Communication Review, IX (November-December 1961), 235-37.
- Hoban, C. F. Research in New Media in Education. Washington, D.C.: American Association of Colleges for Teachers Education, 1961, 22-23.
- Joel, Y. "A Film Revolution to Blitz Man's Mind at Expo 67:" Life (July 14, 1967), 25-28c.
- Katona, G. et al. 1967 Survey of Consumer Finances, Ann Arbor, Michigan: Braun-Brumfield, Inc., 1968.
- Knowlton, J. Q. "A Conceptual Scheme for the Audio-Visual Field." Bulletin of the School of Education (University of Indiana) XL, (no. 3, 1967), 5.
- Komoski, K. "50,000,000 Educational Consumers Can Not Be Wrong--But Who's Listening?" A. V. Instruction, XVI, (September 1971), 10.
- Langer, S. K. Philosophy in a New Key. New York: New American Library, 1942.
- Lawson, B. "Motivating With Multi-Image at the U.S. Military Academy: The Medium for the '70's--and Its Public Relations Side Benefits." A. V. Instruction, XVI (May 1971), 54-56.
- Lippman, W. Public Opinion. New York: Macmillan Company, 1949, 16.
- Low, C. "Multi-Screen and Expo 67." Journal of Society of Motion Picture and Television Engineers, LXXVII (no. 3, 1968), 185-86.

- Margolius, S. The Innocent Consumer Vs. The Exploiters. New York: Trident Press, 1967.
- Markets of the Seventies, ed. of Fortune, New York: Viking Press, 1968.
- McFee, J. K. "Visual Communication." Wimen & Meierhenry (eds.) Educational Media: Theory Into Practice. Columbia, Ohio: Merrill, 1969.
- Millard, W. L. "Visual Teaching Aids: Production and Use." Encyclopedia of Photography. New York: Graystone Press, 1964.
- Perrin, D. C. "A Theory of Multi-Image Communication." A. V. Communication Review, XVII (Winter 1969), 368-82.
- Rosenthal, R. A. "Increasing Sense of Effectiveness Through Media." Educational Technology, IX (December 1969), 39-45.
- Runes, D. D. (ed.). The Diary & Sundry Observations of Thomas Alva Edison. New York: Philosophical Library, 1948, 65, 78, 145-46.
- Schoenfeld, David and A. Natella. The Consumer and His Dollars. Dobbs Ferry, New York: Ocena Publications, Inc., 1966.
- Trahanis, Pascal. "Environmental Economy Education Via Simultaneously Projected Multiple Images With Sound." A. V. Instruction, XVI (January 1971), 19-22.
- Wilson, W. J. and E. Eyster. Consumer Education Problems. Cincinnati, Ohio: South Western Publishing Company, 1961, 27-28.

APPENDIX A

Student Profile

Your Student Number _____

Your age _____ Marital Status _____ Single _____ Married _____

Place of residence: _____ dorm _____ apartment _____ sorority
_____ other

Your major: Home Economics _____ Other _____

If Home Economics, which field:

_____ CTM _____ FRCD _____ HMGT _____ HRA _____ FNIA _____ HID
_____ HEED _____ GeneralYour classification: _____ Freshman _____ Sophomore _____ Junior
_____ Senior

Your gradepoint last semester only:

_____ 4.0 _____ 3.9-3.5 _____ 3.4-3.0 _____ 2.9-2.5 _____ 2.4-2.0 _____ 1.9-1.0 _____ .9 or below

Have you ever visited (stayed less than six months) in a country
other than the United States? _____
yes noHave you ever lived (stayed longer than six months) in a country
other than the United States? _____
yes noWhich of these types of class-time presentations have your experi-
enced in your college classes? (Mark answers by placing a "Y"
before each yes answer and an "N" before each no answer.)_____ Individualized learning packets _____ Films
_____ Audio recordings _____ Lecture with visual
_____ Slides _____ aids
_____ Multi-media presentations with
slides, films, and audio recordingsWhich educational presentation for one class period do you like most?
(Check one answer only)_____ Individualized learning packets _____ Films
_____ Audio recordings _____ Lecture with visual
_____ Slides _____ aids
_____ Multi-media presentations with
slides, films, and audio recordings

What has been the most motivational educational experience you have had in an in-class presentation in your higher education work?

Immediate Evaluation

Please check one answer only.

1. What was the theme of this presentation?

Unawareness of consumers place in society
 Affluency causes apathy
 Technology is fine until it breaks down
 Consumers need to be knowledgeable
 Other _____

2. What was the most important idea projected?

Available resources determine consumer use
 Everyone is a consumer
 Affluent people forget the disadvantages present in a technological society
 Other _____ (Specify)

3. The boy in the pay telephone represents consumers who are:

Frustrated
 Knowledgeable
 Affluent
 Satisfied
 Apathetic

4. The boy using the pay telephone acted wisely in regard to his situation.

_____ Agree _____ Disagree

5. The child at the gum machine represents consumers who are:

Frustrated
 Knowledgeable
 Satisfied
 Affluent

6. At the car wash, the boy finding himself unable to get water to wash his car was a victim of:

False advertising
 Incorrect assumptions
 Affluency
 Technology
 Ignorance

7. At the car wash the boy being unable to wash his car acted wisely
 _____ Agree _____ Disagree
8. The boy at the car wash could be a consumer representative of those who are:
 _____ Frustrated
 _____ Knowledgeable
 _____ Affluent
 _____ Satisfied
 _____ Apathetic
9. The boy at the Pepsi machine represents consumers who are:
 _____ Frustrated
 _____ Knowledgeable
 _____ Affluent
 _____ Satisfied
 _____ Apathetic
10. The boy at the Pepsi machine was justified in his actions.
 _____ Agree _____ Disagree
11. What did you like best about the multi-media presentation you have just seen?
 _____ The theme
 _____ The combination of media
 _____ The film
 _____ The slides
 _____ The room
 _____ Nothing
 _____ Other _____
12. What would you change about the presentation you have just seen?
 _____ The theme
 _____ The combination of media
 _____ The film
 _____ The slides
 _____ The room
 _____ Nothing
 _____ Other _____

13. The educational experience for you was _____ A rich one
_____ Average
_____ Below average
_____ A waste of time

14. Were you confused at any time during the presentation?

_____ Yes, a great deal
_____ Yes, somewhat
_____ Yes, just a little
_____ No, not at all

15. Would you recommend this presentation to other students?

_____ Yes _____ No

16. Would you like other Home Economics courses to use this type of multi-media presentation?

_____ Yes _____ No

APPENDIX B

Retrospective Evaluation

Student number _____

Please check only one answer.

1. What was the theme of the multi-media presentation that you class viewed three weeks ago?
 - Unawareness of consumers place in society
 - Affluency causes apathy
 - Technology is fine until it breaks down
 - Consumers need to be knowledgeable
 - Other _____

2. What was the most important idea projected in the presentation?
 - We are not knowledgeable consumers
 - Everyone is a consumer
 - Resources reflect style of living
 - Technology is bad
 - Affluency leads to apathy
 - Most consumers are unaware of their place in the market
 - Other _____

3. Knowing what you know now do you agree that the boy in the pay telephone acted wisely in regard to his situation?

Agree Disagree

4. The boy at the car wash could be considered a consumer representative of those who are:
 - Frustrated
 - Knowledgeable
 - Affluent
 - Satisfied
 - Apathetic

5. The boy at the Pepsi machine was justified in his actions.

Agree Disagree

6. What would you change about the presentation?
 - The theme
 - The combination of media
 - The film
 - The slides
 - The room
 - Nothing
 - Other _____

7. What do you like best about that presentation?
 The theme
 The combination of media
 The film
 The slides
 The room
 Nothing
 Other _____
8. The educational experience for you was A rich one
 An average one
 A waste of time
9. How much do you feel you have learned about consumers?
 A lot
 A little
 Not much
10. How much do you feel the multi-media presentation aided your study of consumers?
 A lot
 A little
 Not much
11. Would you like another viewing of the presentation?
 yes no
12. Have you recommended this presentation to other students?
 yes no
13. Would you like other Home Economics courses to use this type of multi-media presentation? yes no

VITA^d

Donna Lynd Ward

Candidate for the Degree of

Master of Science

Thesis: REACTION OF HOME ECONOMICS COLLEGE STUDENTS
TO AN AUDIOVISUAL MULTI-MEDIA CONSUMER
EDUCATION PRESENTATION

Major Field: Home Management, Equipment, and Family
Economics

Biographical:

Personal Data: Born in Lansing, Michigan, September 16,
1950, the daughter of Dr. J. Q. Lynd and Fairy Lynd.
Married August 7, 1971 to Sidney J. Ward III.

Education: Attended primary and secondary school at
Stillwater, Oklahoma; graduated from C. E. Donart
High School in 1967; attended Lindenwood College for
Women, St. Charles, Missouri, 1968; attended Okla-
homa State University, 1968-71; received Bachelor
of Science degree from Oklahoma State University,
January, 1971; completed requirements for the
Master of Science degree in May, 1973.

Professional Experience: Worked as Louisiana State
Extension Agent, Assistant Home Demonstration
Agent, January 1971-August 1971 in Franklin
Parish, Winnsboro, Louisiana.