THE DEVELOPMENT AND USE OF SLIDES TO ILLUSTRATE THE PRINCIPLES OF CLOTHING CONSTRUCTION AS APPLIED TO FITTING AND PATTERN ALTERATION

> Thesis for the Degree of M. A. MICHIGAN STATE UNIVERSITY Gwendolyn Lucille Daley 1966





### ABSTRACT

### THE DEVELOPMENT AND USE OF SLIDES TO ILLUSTRATE THE PRINCIPLES OF CLOTHING CONSTRUCTION AS APPLIED TO FITTING AND PATTERN ALTERATION

by Gwendolyn Lucille Daley

Increased numbers of students in all areas of education have impelled teachers to search for more efficient and effective methods of teaching. To date educators and audio-visual specialists have been unable to find a blueprint for making educationally significant teaching materials. The purpose of this study was to gain insights into methods of producing and utilizing slides to illustrate fitting and pattern alteration.

The specific objectives of this study were to: (1) develop a set of slides to relate Principle I\* of the Principles of Clothing Construction to fitting and pattern alteration; (2) examine factors involved in the development of slides; and (3) evaluate the effectiveness of slides for teaching fitting and pattern alteration by obtaining the reactions of a panel of judges.

Data for this study were obtained through four instruments: two score sheets; a reactionnaire; and an information sheet concerning participants. A five point rating scale was utilized on the score sheets to obtain an evaluation of the achievement of purpose and clarity of each illustration on the slides.

The panel of judges was composed of five students, 18 homemaking teachers, and five specialists in home economics. Division of the population into students, teachers, and specialists was undertaken to determine any differences in reactions to the slides.

From the ratings and reactions of the judges, and from analysis of the techniques used in developing the slides, specific suggestions for the development of slides to illustrate fitting and pattern alteration were formulated.

Some slides carried printed captions and some did not. Although the population was in favor of the printed information that had been used on the slides, little agreement was found on whether printed information should be used on slides showing fitting problems and pattern alterations. Twenty-two of the 28 respondents were in favor of the printed explanations that had been used; but less than half expressed a desire for printed explanations on the slides showing fitting problems and alteration techniques, and nine felt that printed explanations should not be used.

One area of interest was the determination of the best time during the slide series to illustrate the problem in fabric, before or after the paper pattern alterations. The majority of the respondents favored the illustration showing the problem in fabric first because students were more accustomed to seeing a poor fit in fabric than in paper, and problems were easier to see in fabric.

Students, teachers, and specialists were not always found to be in agreement on the rating of the slides, the order of placement of the illustrations, or on the use of printed explanations on the slides. The highest ratings were given to the slides by the students, while the specialists gave them the lowest rating. Students and homemaking teachers favored the illustrations of the problem in fabric shown first, while the specialists favored the reverse order. Students expressed a desire for printed explanations on the slides as they would be helpful for review, while the teachers and specialists were fairly equally divided between positive and negative reactions.

Based on evidence presented in this limited research the following conclusions were drawn: (1) viewing a fitting problem in fabric before seeing it in a paper pattern makes the fitting problem easier to understand; (2) specialists and students do not always agree on the most meaningful order of presenting information for comprehension of fitting problems and alteration procedures; (3) teachers predicted that the slide series as developed would be an effective teaching aid for illustrating fitting problems and pattern alteration in classes with advanced high school students or beginning college students; and (4) the advantages of using slides to illustrate fitting and pattern alteration in large group situations outweigh their disadvantages.

٠

\*Principle I: Shaping flat fabric to conform to body curves requires reducing the perimeter of garment pieces.

# THE DEVELOPMENT AND USE OF SLIDES TO ILLUSTRATE THE PRINCIPLES OF CLOTHING CONSTRUCTION AS APPLIED TO FITTING AND PATTERN ALTERATION

By

Gwendolyn Lucille Daley

# A THESIS

# Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Department of Textiles, Clothing and Related Arts

21 43159 4/8/51

.

#### ACKNOWLEDGMENTS

The writer is indebted to all who have assisted in making this study possible. Special gratitude is expressed to Dr. Mary Gephart for her guidance and understanding in directing the writer's graduate program and especially this thesis.

The writer also wishes to express her gratitude to Mrs. Arla Karl, Beth Guillaume, Kathy Harper, Denise Grace, Laura Kelley, and Karolyn Smalley whose patience and cooperation while posing as models for the illustrations made the development of the visuals possible.

Appreciation is extended to Dr. Pearl Aldrich, Miss Bernetta Kahubka, and Miss Kathryn Bratzler, and to the writer's advisory committee: Dr. Anna Creekmore, Dr. Twyla Shear, and Mrs. Stephanie Winkler. Special thanks go to fellow graduate students, especially Helen Kilbourne, who helped in countless ways.

ii

# TABLE OF CONTENTS

ACKNO	OWLE	EDGMENTS	•	•	٩	•	0	0	٥	•	•	٥	D	u	•	•	•	•	0	•	۰	ii
LIST	OF	TABLES	۰	•	•	•	0	o	•	J	o	•	•	U	•	•	•	ø	•	o	•	v
LIST	OF	APPENDIC	ES	5	•	o	n	•	c	¢	¢	61	•	•	o	•	o	•	0	0	•	vii

# Chapter

I.	INTRODUCTION	•	•	•	1
	Focus of Study	•	۰	•	4
II.	REVIEW OF LITERATURE	•	•	•	7
	Theory of Learning	•	•	•	7
	Value of Visuals	•	•	•	9
	Development and Selection of Visuals . Fitting of Clothing and Its Effect	•	•	•	12
	on the Individual	٥	•	•	16
III.	METHODOLOGY	•	•	0	21
	Development of Audio-Visual Materials	•	•		21
	Development of Instruments	•	•	•	27
	Pretest	•	•	•	28
	Selection of Sample	•	•	•	29
	Administration of Instruments	•	۰	•	29
	Analysis of Data	•	•	٠	30
IV.	ANALYSIS OF SCORE SHEETS	•	•	•	31
	Description of Population			•	31
	Analysis of Score Sheets		•		34
	······································				
ν.	REACTIONNAIRE	۰	•	•	51
	Presentation of Illustrations of				
	Problem in Fabric	•	•	0	51
	Use of Printed Explanations in Slides	•	0	•	54
	Evaluation of Slide Series as a Whole	•	۰	c	57

Chapter	r																						Page
VI.	SUM№	1AR Y	Y,	C	DNÇ	LU	SIC	DNS	5,	AN	D	RE	CC	MM	IEN	IDA	TI	0	1S	0	0	•	65
	Su Re	imm ; c o i	ary mme	/ a end	and lat	C io	onc ns	21ı °	ısi	.on	۱S °	•	0 0	•	0 9	0 0	0 0	0 0	0 0	0 0	•	0 0	65 71
BIBLIO	GRAPH	IY .	•			0	ú	o	¢	•	•	o	o	•	o	ø	U	0	•	o	•	o	73
APPEND	ICES	•	n 6			0	•	0	0	o	0	•	•	٥	•	•	c	0	•	•	•	0	78

# LIST OF TABLES

Table		Page
1.	Average rating of students, teachers and specialists for each of the eleven slides in the introductory series (Score Sheet A)	35
2.	Questions used for rating and average rating of students, teachers and special- ists for each illustration in each slide of ten series of slides (Score Sheet B).	39
3.	Number of respondents indicating pref- erence for illustrations of the problem in fabric shown first and last in the series and the reasons for the prefer- ence	52
4.	Responses and comments in reply to the question, "Do you feel that printed ex- planations on those slides showing fit- ting problems and alterations would help clarify the illustrations?"	56
5.	Responses of students, teachers and specialists to the question, "Do you feel that printed explanations on those slides showing fitting problems and al- terations would help clarify the illus- trations?"	57
6.	Number of responses and comments of re- spondents indicating that additional slides are needed in some places for a smoother flow of ideas	60
7.	Number of responses and comments to the question, "What suggestions do you have for improving the illustrations?"	61

•

,

# Table

8.	Number of responses with comments to the question, "What do you consider to be the advantages in using these slides to teach fitting and pattern alterations?"	63
9.	Number of responses and comments of re- spondents to the question, "What do you consider to be the disadvantages in using these slides to teach fitting and pattern alterations?"	64

Page

# LIST OF APPENDICES

Appendix		Page
Α.	Score Sheet A	79
В.	Score Sheet B	80
С.	Reactionnaire to Slide Series	85
D.	Information Concerning Participants .	88
Ε.	Letter to Judges	
F.	Information Sheet	90
G.	Photographs of Selected Slides	93

## CHAPTER I

#### INTRODUCTION

Changes in the American society during the twentieth century have had a great impact on educational needs and Increased numbers of students in all areas of edumethods. cation have necessitated finding more efficient and effective methods of teaching. Not only is there a greater number of youth in the United States today but an increased number are staying in school longer. In 1900 about 11 percent of the eligible youth between 14 and 17 years of age were in high school; in 1920 this percentage figure stood at 32; and in 1940 at 73. By 1960 approximately 90 percent of all youth in the age group 14 to 17 were attending high school. During this same period the number of youth in the 14 to 17 age group increased from 6 1/6 million in 1900 to 11 1/3 million in 1960.<sup>1</sup> an increase of about 84 percent.

"Enrollments have risen steadily at all levels of education, and as wave upon wave of new students have swept upward through the grades, educators have come to realize that this is not a temporary phenomenon, but a problem--and

<sup>&</sup>lt;sup>1</sup>Carl H. Gross and Charles C. Chandler, <u>The History</u> of American Education Through Readings (Boston: D. C. Heath and Co., 1964), p. 411.

a challenge--that will be with us for the foreseeable future."<sup>1</sup> Schools are overcrowded, understaffed and illequipped. By 1957 the public school systems had a shortage of 142,000 classrooms and 1,943,000 more pupils than "normal" classroom capacity.<sup>2</sup> Some elementary and high schools found it impossible to hire well-qualified teachers and this shortage has now reached up to the college level. Thus, public institutions are faced with a problem of providing instruction to more students without increasing the number of teachers.

"The task before the schools today is so broad in scope and so complicated in character that education must utilize every tested and approved method known."<sup>3</sup> Public institutions must find methods to provide instruction for an ever increasing number of students.

During the past few years educators have been questioning long accepted practices and concepts, and are searching for new and better ways of providing an education for the nation's young people. Today, an understanding of principles, generalizations, and basic concepts is recognized as an important aspect of the educational process.

<sup>2</sup>Gross and Chandler, <u>op. cit</u>., p. 422. <sup>3</sup>James S. Kinder, <u>Audio Visual Procedures in</u> Teaching (New York: American Book Co., 1950), p. 9.

<sup>&</sup>lt;sup>1</sup>Ford Foundation, Teaching by Television. A Report from the Ford Foundation and the Fund for the Advancement of Education (New York: Ford Foundation, Bay, 1959), p. 1.

In the field of clothing construction, skills are definitely involved; however, the emphasis in instruction has shifted from teaching skills alone to the comprehension and application of basic principles and unifying concepts. The great problem in the area of clothing construction exists in tying together the discipline-oriented (concepts, principles) and the problem-oriented (how-to-do) areas of subject matter.<sup>1</sup>

In 1957 the College of Home Economics at Michigan State University recognized the need for curriculum revision. The traditional pattern of instruction with heavy emphasis on laboratory time, and based on the development of skills, had proven to be unsatisfactory in terms of student and faculty time, and on utilization of laboratory The old course in beginning clothing construction space. required one hour of lecture and six hours of laboratory; the new course, which emphasized the principles basic to all clothing construction, was planned with two hours of lecture and two hours of laboratory. The development of various types of audio-visual materials became mandatory in the larger group lecture situation. "Formerly charts and actual garments were used; however, with large group instruction, these proved inadequate."<sup>2</sup> The need for large, clear,

<sup>&</sup>lt;sup>1</sup>Thelma Porter, <u>Administrators' Workshop on Home</u> <u>Economics in Higher Education</u> (East Lansing, Michigan: College of Home Economics, Michigan State University, 1960), p. 67.

<sup>&</sup>lt;sup>2</sup>Anne Kernaleguen, "Principles Approach to the Teaching of Beginning Clothing Construction," <u>Proceedings</u>, A speech to the Nineteenth Conference of Teachers of Textiles and Clothing held at Michigan State University, October 23 to 26, 1963, p. 35.

projected visuals became evident in a lecture situation encompassing some 80 to 120 students.

The following Principles of Clothing Construction were developed by a faculty committee for use in the beginning construction course:

- I. Shaping flat fabric to conform to body curves requires reducing the perimeter of garment pieces.
  - Corollary I: The amount of reduction of the perimeter of garment pieces is relative to the degree of prominence of body curves.
  - Corollary II: Darts, tucks, gathers and ease radiate from the most prominent body curves to be covered by a given garment piece.
- II. When concentric circles or arcs of different radii are used in clothing construction, certain adjustments in the circumference are necessary.
- III. Manipulation of any given material is dependent upon its component parts.
  - Corollary I: Structure is a determinant of the extensibility of fabric.
  - Corollary II: Texture is a determinant of the behavior of fabric.
  - IV. Choice of construction methods and techniques and choice of fabric are interrelated.

#### Focus of Study

Application of Principle I of the Principles of Clothing Construction to fitting and pattern alteration was

<sup>&</sup>lt;sup>1</sup>Principles of Clothing Construction as presented in TCRA 152, College of Home Economics, Michigan State University, East Lansing, Michigan.

chosen for this study because of the great need for illustrative material in presenting this section of the course related to fitting to a large group of students.

The present study was undertaken with the assumptions that:

- Principles of fitting must be thoroughly understood before they can be applied.
- Some students have limited backgrounds in clothing construction and thus have limited ability in fitting.
- Slides can be developed to illustrate the principles of fitting.
- Effectiveness of slides can be determined by a panel of judges.

A major prerequisite of making well-fitted garments is the ability to analyze fitting faults and to know when and where to make alterations. Developing proficiency in fitting is complicated by the fact that anatomical structures vary in proportions and actual measurements. The person studying clothing construction, and particularly the prospective teacher who will be teaching others, requires a thorough comprehension of principles, and an understanding of specific techniques applicable to individual fitting problems.

Visual aids used to complement the teaching of fitting should enable the student to establish correct concepts,

broaden experiences, and stimulate a desire for proficiency in fitting. The objectives of the present study are:

- The development of a set of slides to relate Principle I to fitting and pattern alteration.
- An examination of the factors involved in the development of slides.
- 3. An evaluation of the effectiveness of slides by obtaining the reactions of a panel of judges.

#### CHAPTER II

#### **REVIEW OF LITERATURE**

The educational systems developed by many great educators have centered around the use of the concrete and realistic. During recent years the experience theory of education as propounded by Dewey has again stressed the importance of realistic experiences in the learning process.

## Theory of Learning

Man experiences his environment mainly through the five major senses--sight, hearing, touch, smell, and taste. In the process of learning all of the senses are used in building experiences and each new perception is a blend of past and present experiences. Precepts are "the totality of experience connected with a sensory object or fact... and are chiefly habit reactions to familiar 'cues' which have occurred and re-occurred in similar situations."<sup>1</sup> What a person perceives depends partly on the sensory object and partly on the background of experiences which are used to provide meaning. The accumulation and assimilation of many sense perceptions leads to a higher level of learning,

<sup>&</sup>lt;sup>1</sup>James S. Kinder, <u>Audio-Visual Materials and Tech</u>niques (New York: American Book Co., 1950), p. 45.

the building of concepts. A concept is given meaning through the organization and interpretation of previous sensory data into "configural patterns which function for the learner as a unit."<sup>1</sup> In the process of learning an individual attends to many mental activities, starting with the more concrete and simple and ascending to the more abstract and complex. This process, starting with sensation and progressing to reasoning and thinking, has been visualized by Kinder as containing the following intellectual processes:<sup>2</sup>



Perception, then, is a vital link in the process of learning and may be considered as the fundamental basis of learning.

<sup>1</sup>David Goodman, "The Principles, Origin and Early Development of Educational Realism," <u>Educational Screen</u>, XXII (March, 1943), p. 109.

<sup>2</sup>Kinder, op. cit., p. 46.

# Value of Visuals

In order for learning to take place in any school situation there must be appropriate interaction among the student, teacher, and subject matter. Resource materials for classroom learning range from contact with actual things or real situations to verbal transfer about unfamiliar situations or experiences. Since the meaning derived from language symbols is dependent upon the richness of background sensory experiences, perhaps the greatest value of visual aids is that they provide substitute or vicarious experiences which serve as the background for interpreting the new concepts to be "The fewer real experiences our students have, relearned. lating to the subjects we teach, the more important it is to use visual aids to help them develop correct initial concepts and prevent the forming of false and inaccurate interpretations."<sup>1</sup>

E. G. Olsen categorized learning into three basic types dependent on the level of abstraction required for each. Starting with the least abstract or more concrete and working toward greater abstraction these levels are:

> Direct learning through firsthand experience involving immediate sensory contacts with reality.

<sup>&</sup>lt;sup>1</sup>Mineta Meston, "Vitalizing Teaching Through the Correct Use of the Still Picture," <u>Educational Screen</u>, XVI (April, 1937), p. 115.

- Vicarious learning through audio-visual materials utilizing mechanical representations of reality.
- Vicarious learning through words involving abstract symbols of reality.<sup>1</sup>

All tools of learning have one main purpose--effective learning. "They are means to an end, that end being the transmission, creation, interpretation, and evaluation of experience."<sup>2</sup> In the classroom the main avenues of learning involve the sense of sight, hearing, and touch. The use of words alone has a way of leading the thinker into "blind alleys." The use of real things as a basis for observation makes possible accuracy of perception and concept that other materials cannot match.<sup>3</sup> But the limitations of their use are obvious. Some objects or phenomena may be too small or too complex to be seen clearly by pupils in large classes, or even by pupils in the last rows of seats in a conventional sized group. Semi-concrete or vicarious representations of direct experiences can furnish the learner with a meaningful background on which to build concepts. However, the quality of the reminder or representation portends its possibility for real educational value.

<sup>1</sup>E. G. Olsen, "Perspective in Audio-Visual Education," <u>Educational Screen</u>, XXV, No. 3 (March, 1946), p. 120.

<sup>2</sup>Kinder, <u>op. cit</u>., p. 10.

3. Carlton W. H. Erickson, <u>Fundamentals of Teaching</u> with Audiovisual Technology (New York: The Macmillan Co., 1965), p. 43.

Visual imagery is fundamental to much of our thinking and visual symbols can make lasting impressions upon the mind. The eye is probably the most retentive and active of the sense organs. The inherent nature of visual symbols, namely their concreteness, makes it imperative that they be accurate and excellent in quality.<sup>1</sup> An inaccurate or ambiguous symbol can lead to inaccurate concepts and faulty interpretations. An error at any stage in the learning process is a breakdown in communication.<sup>2</sup> Misinformation, haziness, errors of all kinds must be followed by remedial treatment. Correct initial learning results in more economical learning.

Kinder cautions that although a large amount of learning comes through the sense of sight other sense organs must not be neglected, for they too play an important role in learning. Research has indicated that verbal as well as non-verbal clues are used in most thinking processes. "On the one hand, we use audio-visual materials to make the meaning of words clear, and, on the other hand, we use words...to make pupils' experiences based on audio-visual presentations clear, meaningful and useful."<sup>3</sup>

<sup>1</sup>Dean McClusky, "Principles of Utilizing Audio-Visual Materials in the Curriculum," <u>The Audio-Visual Reader</u>, eds. James S. Kinder and F. Dean McClusky (Dubuque, Iowa: Wm. C. Brown Co., 1954), p. 40.

<sup>2</sup>Wilfred L. Veenendaal, "The Visualization of an Idea," <u>Audio Visual Instruction</u>, XI (December, 1957), p. 260.

<sup>3</sup>Erickson, <u>op. cit.</u>, p. 6.

Kinder suggests that audio-visual materials, when properly selected and used in the learning experience, have the following practical values because they:

- . overcome the limitations of restricted personal experiences of pupils.
- . overcome the limitations of the walls of the classroom.
- . provide for the direct interaction of the pupils with the realities of the social and physical environment.
- . provide uniformity of precepts.
- . awaken new desires and interests.
- . give initial concepts which are correct, real, and complete.
- . provide motivation and stimulation.
- . provide for economical learning.
- . provide integrated experiences which vary from concrete to abstract.1

### Development and Selection of Visuals

To date educators and audio-visual specialists have been unable to find a blueprint for making educationally significant teaching materials. Wagner suggests that the best technique for making an effective aid is to base it on important elements in the learning process itself. He proposes that three elements basic to creating designs for exposition are: amplification, simplification, and organization.

Through such amplification the powers of human observation are enlarged, and attention of whole groups of learners may be directed to a common image leading to common understanding . . . . Simplification is a matter of making things clear, distilling the essential meaning of an experience . . . Organization involves the arrangement of ideas,

<sup>1</sup>Kinder, <u>op. cit</u>., pp. 60-65.

facts or events in a purposeful order of pattern . . . a clear and memorable arrangement of information, 1 but also an arrangement of that material by experts.<sup>1</sup>

However, Bloom cautions that the "organization the specialist finds most useful is not necessarily the organization that provides the easiest learning path for the student."<sup>2</sup> Visual materials should not be used indiscriminately but should be selected with care to "avoid a mere confusion of sensory stimulation without any real organization of the sensations by the pupil."<sup>3</sup>

Very few students can learn how to do a complex act from written or spoken directions; it is through emulation that most learners most easily acquire their ability. If a learner cannot actually see the act being done it is important that he be given a substitute experience in which he is able to emulate a correct model. These substitute visual aids should not only be "authentic, accurate, truthful and significant but also they should be simple in organization and construction. The simpler the visual the better."<sup>4</sup> Complex pictures tend to distract attention, thus weakening

<sup>1</sup> Robert W. Wagner, "Design in Exposition," <u>The</u> <u>News Letter</u> , XVI, No. 3 (December, 1950), pp. 1-4.	
<sup>2</sup> Benjamin S. Bloom, <u>Taxonomy of Educational Objectives</u> , <u>Handbook 1: Cognitive Domain</u> (New York: David McKay Co. Inc., 1956), p. 37.	
<sup>3</sup> William H. Johnson, <u>Fundamentals in Visual In-</u> <u>struction</u> (Chicago: The Educational Screen Inc., 1927), p. 37.	
<sup>4</sup> Paul T. Williams, "Building Mental Images," <u>The</u> Nation's Schools, XXXXII, No. 6 (December, 1948), p. 54.	2

the value of a picture. Trolinger maintains that visual aids in themselves are not always instructive. "People do not always see the significant features of a picture . . . Interpretation is always a keynote."<sup>1</sup>

Most writers agree that clearness and definiteness of outline are important qualities in any projected visual. Clearness is particularly important in a relatively small 2 x 2 slide as amplification tends to exaggerate all faults and deficiencies.

The following criteria for the selection of visual aids and other illustrative material were established by Hogan in 1948; she proposed that all aids must:

- . contribute directly to the unit being studied and to the goals of the class.
- . be based on the interests and needs of the students for which it is intended.
- . contribute to the individual growth of the student.
- . assist in clarifying a point.
- . emphasize application of the principles being taught.
- . stimulate and maintain interest on the part of the student.
- . set commonly accepted standards for the particular level.
- . be easily interpreted by the group.
- . attract attention by its artistic appeal.
- . contain information which is up to date.
- . allow the student to visualize the finished product.
- . be adaptable for different uses.
- . be durable.
- . be easily stored.<sup>2</sup>

<sup>1</sup>Lelia Trolinger, "Evaluation of Still Pictures for Instructional Use," <u>The Audio-Visual Reader</u>, eds. James S. Kinder and F. Dean McClusky (Dubuque, Iowa: Wm. C. Brown Co., 1954), p. 81.

<sup>2</sup>Catherine Hogan, "Research in the Preparation of Illustrative Material for Advanced Dressmaking Courses," (unpublished Master's thesis, Cornell University, 1948). Although the following criteria and standards were developed for selecting commercially prepared flat pictures, the writer feels that they could also serve as guides for the preparation and selection of projected illustrations.

Hollis secured the opinion of eight competent judges from the commercial and educational worlds to establish the following criteria for the selection and evaluation of pictures:

- 1. Truth and Authenticity--Are the facts true and well vouched for?
- 2. Relevancy--Does it illustrate the particular topic under discussion?
- 3. Concentration--Does it direct attention toward significant facts, or are they obscured by unimportant details?
- 4. Technical Qualities--Is there clear definition or focus?<sup>1</sup>

William Gregory advocates the following standards for selecting pictorial illustrations:

- 1. The picture should be clear and distinct.
- 2. The picture must show clearly the points desired.
- 3. Simple pictures are best for teaching purposes.
- 4. Pictures must show actual conditions to be of high pictorial quality.
- 5. The picture should contain one principal subject.
- 6. Pictures should be selected so that a series of views is obtained.<sup>2</sup>

In a study designed to ascertain the difference

in learning between groups viewing colored versions and

<sup>1</sup>A. P. Hollis, <u>Motion Pictures for Instruction</u> (New York: Century Co., 1926), pp. 197-205.

<sup>2</sup>Standards advocated by Gregory as reported by Wilbur Emmert, "Standards for Selecting and Evaluating Still Pictures," <u>Educational Screen</u>, XVI (December, 1937), p. 318. groups viewing black and white versions of five training films, Vander Meer found there was very little immediate difference in learning. The 500 ninth and tenth grade students in the study retained the same amount of information immediately after viewing the two types of films, but after six weeks those who had seen the color version of the same film had forgotten less than those who had seen the black and white version. The viewers also preferred the colored films over the black and white films.<sup>1</sup> Color appears to be a factor in making a picture more aesthetically satisfying and less tedious to interpret.

Tests have shown that colors vary in both their memory value and attention value. The hues with the greatest memory and attention value were found to be red, green and yellow. Blue does not have as high a memory value as the first named colors.<sup>2</sup>

### Fitting of Clothing and Its Effect On the Individual

Very often first impressions of an individual are formed from the clothing he is wearing. Sociologists and psychologists have suggested that clothing is a type of

<sup>&</sup>lt;sup>1</sup>M. A. Vander Meer, "Color vs. Black and White in Instructional Films," <u>Audiovisual Communication Review</u>, Z (1954), pp. 121-134.

<sup>&</sup>lt;sup>2</sup>Office of Naval Research, Human Engineering Department, <u>A Review of Literature Pertinent to the Design</u> and <u>Use of Effective Training Aids</u>, Technical Report SDC 404-08-1 (Port Washington, New York: Special Devices Center, 1956), p. 121.

consumer goods which is not primarily used for "physical welfare" but rather for "psycho-social welfare."

Stone asserts that "appearance means identification of one another . . . the self as object and attitude is established by appearance."<sup> $\perp$ </sup> He proposes that the self is established when one's dress calls out in others the "same" identification of the wearer as it calls out in the Stone further emphasized the value of clothing by wearer. saying that "as the self is dressed, it is simultaneously addressed, for, whenever we clothe ourselves, we dress 'toward' or address some audience whose validating responses are essential to the establishment of our self . . . By appearing the person announces his identity, shows his value, <u>expresses</u> his mood, or proposes his attitude."<sup>2</sup> Ryan adds that since clothing is one of the clues used by people in their first reactions, it may play a part in the actual selection of our friends and acquaintances.<sup>3</sup>

Grace Morton comments that:

Clothes help to make us self-confident, self-respecting, jolly, free, or they make us self-conscious, shy, sensitive, restrained. They determine how much we go into society, the places we go to, the exercise we take.

<sup>1</sup>Gregory P. Stone, "Appearance and the Self," <u>Human Behavior and Social Processes</u>, ed. Arnold Rose (Boston: Houghton Mifflin Co., 1962), p. 92.

<sup>2</sup><u>Ibid</u>., p. 101.

<sup>3</sup>Mary Shaw Ryan, Clothing: A Study in Human Behavior (New York: Holt, Rinehart and Winston, Inc., 1966),  $p \cdot 8$ . They help us to get jobs and to hold them, to miss them and to lose them.  $^{1}$ 

Writers agree that, of the several factors which affect the appearance which clothes give the wearer, the way a garment fits is one of great importance. A poor fit can never be concealed and "the beauty of a garment can be completely destroyed if it does not fit the figure properly."<sup>2</sup>

Bishop comments that "even the most expensive clothes can never have a quality look, unless they fit well."<sup>3</sup>

Mansfield asserts that nothing is more important to the appearance of a garment than the way it fits. She adds that "dissatisfaction with a garment can more often be traced to a fault in fitting than in construction."<sup>4</sup> In her study designed to obtain expressed satisfactions in home sewing, Ostapovitch found that half of the one hundred home sewers contacted had made garments for themselves which they seldom or never wore. "Poor fit," "error in style selection," "looks home made," and "poor choice of fabric" were the most frequently mentioned reasons for not wearing the garments. Ostapovitch concluded that "there are

<sup>1</sup>Grace M. Morton, "Psychology of Dress," <u>Journal</u> of Home Economics, XVIII (1926), p. 585.

<sup>2</sup>Mildred Graves Ryan, <u>Dress Smartly: a 100 Point</u> <u>Guide</u> (New York: Charles Scribner's Sons, 1956), p. 117. <sup>3</sup>Edna Bryte Bishop and Marjorie Stotler Arch, <u>Fashion Sewing by the Bishop Method</u> (New York: L. B. Lippincott Co., 1962), p. 18.

<sup>4</sup>Evelyn A. Mansfield, <u>Clothing Construction</u> (Boston: Houghton Mifflin Co., 1953), p. 49.

indications that students need experience and training in altering and fitting patterns to overcome figure defects."<sup>1</sup>

Erwin defines a well-fitted garment as one that "feels comfortable, is becoming, is consistent with present fashions, and adjusts naturally to the activities of the wearer--in general it hangs or sets without wrinkles, sagging, or poking out."<sup>2</sup> She states that the first step in solving a fitting problem is the "recognition of wrinkles, an off-grain condition, slanting lines where they should be straight, lack of balance at bulges or poking-out areas, and a strained tightness or a place too loose--not snug enough to be neat or in fashion."<sup>3</sup> Erwin adds that once the fitting problem has been recognized, the next step is to determine the cause, find a remedy, and then choose the neatest, simplest method of alteration.

The process of fitting requires very careful analysis of faults, and the fitter must "observe the figure keenly and study the relationships among its contours just as a sculptor would do."<sup>4</sup> An understanding of when and

<sup>3</sup>Ibid., p. 338.

<sup>4</sup>Marion S. Hillhouse, and Evelyn A. Mansfield, Dress Design (Boston: Houghton Mifflin Co., 1948), p. 195.

<sup>&</sup>lt;sup>1</sup>Annette Ostapovitch, "A Study of Motives for and Satisfactions of Home Sewing as Expressed by a Selected Group of Michigan Women Who Do Home Sewing" (unpublished Master's problem, Michigan State University, 1961), p. 31.

<sup>&</sup>lt;sup>2</sup>Mabel D. Erwin, and Lila A. Kinchen, <u>Clothing</u> for Moderns (3rd ed.; New York: The Macmillan Co., 1964), p. 404.

where to make alterations requires learning to trace wrinkles and bulges to their point of origin to determine whether they are caused by figure irregularities, poor pattern shaping, or posture.

The ability to recognize a good fit and to fit a garment is one of the great problems of women who sew. Without an understanding of fitting, the fitter may overfit, or, in the process of removing one bulge or wrinkle, may create an even more serious one. To become skilled at fitting requires careful analysis of flaws, recognition of basic fitting principles, and an understanding of alteration or corrective methods.

### CHAPTER III

#### METHODOLOGY

The development of audio-visual materials comprised the major portion of this exploratory study. This chapter describes the production of the visuals, the sample selection procedures, and the characteristics of the sample. These methodological considerations will be presented in the following order: (1) development of audio-visual materials; (2) development of instruments; (3) pretest; (4) selection of sample; (5) administration of instruments; and (6) methods of analysis.

#### Development of Audio-Visual Materials

For several years the committee of instructors in Principles of Clothing Construction have been experimenting with fitting and pattern alteration and trying to develop more effective methods of teaching underlying principles. A review of literature revealed that theoretically slides would be an ideal medium for presenting the details of fitting and pattern alteration. The final selection of the unit was limited to the application of Principle I of the Principles of Clothing Construction to fitting and altering the bodice of a basic dress with the assumption that, if
Principle I were thoroughly understood in this narrower application, the principle could then be adapted and transferred to new situations of changing fashion silhouettes or individual preference for ease.

The selection of the unit was followed by the preparation of a content outline, the "storyboard" for the development of the visuals, and the preparation of slides. The slides were developed to meet the needs of students in a specific classroom situation, and throughout the development of the slides the researcher attempted to follow the expressed wishes of the instructors in the course.

All slides were taken on Kodachrome II Professional Type A film with a Honeywell Pentax camera equipped with a Super-Takumar 55mm lens. Number 2 standard Photoflood (3400 K) lamps and two ten inch metal reflectors served as lighting equipment. A I:I ratio of key to fill-in light was used throughout the shooting of the pictures.

Approximately 1,200 slides were taken; 600 of these were of fabric illustrations and 500 were of illustrations in the paper pattern. The slides were edited down to about 80, of which 67 were included in this study.

#### Selection of Fabric

Four fabrics were used in the study; three of these appear in the final set of slides. The fabrics used were:

- a light green cotton and Dacron polyester broadcloth (see photograph of slide 3 Series B in Appendix G),
- a medium weight, plain weave, brushed cotton in a medium blue color (see photograph of slide 1 Series I),
- 3. a medium weight, plain weave wool in a slightly darker blue color (see photograph of slide 2 in the introductory series),
- a basket weave, dress weight wool in a dark green color (no illustration of this fabric appears in the final set of slides).

The light weight cotton and Dacron broadcloth proved unsatisfactory for illustrating fitting problems. The material tended to sag and wrinkle when required to bridge a gap between two very different body dimensions, and easing around the sleeve cap appeared puckered in the finished illustrations. The light green color proved to be susceptible to color change in photography; a one F-stop change on either side of the suggested meter reading produced either a washed out green or a green of a considerably darker value. The dart lines in the slides were not as visible in the green fabric as in either of the blue fabrics used.

Medium weight brushed cotton was satisfactory in some respects and unsatisfactory in others. The material was heavy enough to hold its shape without undue wrinkling when spanning a gap between different size body dimensions, but wrinkles appeared around the cap of the sleeve in the finished pictures as the material did not shrink successfully. The color stability of the fabric was very critical and tended to shift from blue to blue green under different arrangements of lights and under lights that had burned for over four hours of a suggested six hour life span.

After a few pictures were taken the light weight, basket weave wool was eliminated because the fabric tended to sag and wrinkle rather than providing a smooth line between different sized body contours. The dark green color showed no objectionable change of color when photographed under new or "tired" Photoflood lamps.

The most successful of the four fabrics for photographic purposes was the medium weight wool; the fabric had enough weight and body to reduce sags and wrinkles when spanning different body dimensions; the sleeves eased in without producing noticeable wrinkles in the finished picture; and the color remained reasonably consistent (up to one Fstop on either side of the suggested meter reading). The medium blue color of the wool fabric did not show any noticeable change in color in the finished slides when taken under Photoflood lamps that were utilized until bulbs burned out.

# Selection and Preparation of Paper Patterns

Commercial pattern companies utilize different grades and weights of tissue paper for patterns. The heavier weight paper proved to be the most satisfactory for photographic purposes. The lighter weights of tissue paper, in addition to being more transparent, did not show wrinkles or folds to illustrate a fitting problem as well as the heavier weight papers; lighter tissue paper also had a greater tendency to reflect light and produce "hotspots."<sup>1</sup> The problem of tearing and ripping of the paper pattern while on the model was reduced somewhat by using patterns printed on heavier weights of tissue paper.

The investigator found that patterns pressed with a dry iron to remove the wrinkles still tended to appear creased and wrinkled in the slide. Pressing with a steam iorn not only removed the wrinkles but made the pattern crisper and less prone to wrinkling while on the model. The addition of short pieces of cellophane tape<sup>2</sup> placed along the seam allowances of the neckline, armscye, and waistline strengthened the patterns and gave a crisper, neater appearance to the fitted pattern in the slide.

<sup>&</sup>lt;sup>1</sup>For a comparison of weights of paper see slide 3 Series F. The sleeve is printed on a heavier paper than that used for the back bodice section.

<sup>&</sup>lt;sup>2</sup>Magic Mending transparent tape is more satisfactory than regular transparent tape.

# Methods of Overcoming Optical Illusion Created by Photography

The author found it expedient to employ several remedial methods to overcome optical illusion created by the photographic media. Alignment of the center front and center back lines of the paper pattern with the center of the figure tended to be particularly prone to distortion. To obtain the appearance of a properly placed center front and center back line in a photograph required pinning or anchoring the paper pattern about one-quarter to threeeights of an inch back from the true center of the figure at the bust level. Photography did not appear to distort the alignment of the center front or center back lines at either the neckline or waistline; consequently these points were centered on the figure in the normal fitting position.

The small amount of lengthwise ease normally allowed at the waistline in fitting a paper pattern appeared in the slide to be excess; therefore, the author found it necessary to eliminate this ease in order to produce an acceptable illustration. Generally, a paper pattern one size smaller than that "normally" utilized by the model gave the appearance of a perfect fit in the finished slide.

Ease in the garments for the slides showing fabric fittings had to be curtailed also. To avoid excess wrinkles and attain the illusion of a properly fitted garment in the finished slide all body ease was reduced to a minimum and in some cases almost completely eliminated.

## Development of Instruments

Four instruments were developed to obtain data for this study: two score sheets, a reactionnaire, and an information sheet.

Score Sheets A and B (see Appendices A and B) were developed for the purposes of: (1) assessing the technical quality of the slides; and (2) determining adequacy of the illustrations in accomplishing intended purposes. Each illustration was scored separately in order to better tabulate the information for comparison and evaluation. A five point scale from 5, "Very clear," to 1, "Not at all clear," was used for rating the illustrations.

Score Sheet A was designed to assess adequacy of the illustrations in the introductory series; Score Sheet B was designed to ascertain technical qualities and adequacy of purpose of illustrations showing fitting problems and alterations. Two forms of Score Sheet B were used with the same questions appearing in a different order; Form I of this score sheet was arranged with questions regarding fabric illustrations placed last, while Form II had the same questions placed first.

An instrument called a "Reactionnaire to Slide Series" (see Appendix C) was developed to obtain data for the purposes of:

> evaluating the effectiveness of the slide series as a whole,

- obtaining an assessment of the slide series as to:
  - a. the most meaningful order of presenting the slides,
  - b. the utilization of printed information on the illustrations,
- obtaining judges' suggestions for improvement of the slides.

Fixed alternative questions were included when possible to facilitate tabulation and analysis of responses. Free response questions were employed to qualify answers to other questions and when specific suggestions or attitudes of the respondents were desired.

A separate sheet called "Information Concerning Participants" was devised to obtain background information and teaching experience of the respondents (see Appendix D).

## Pretest

The reactionnaire and score sheets were pretested on a group of three faculty members and five graduate assistants in the Textiles, Clothing and Related Arts Department at Michigan State University. On the basis of the findings in the pretest, changes in the wording and in the format for responses were undertaken for the sake of clarity and ease of administration.

### Selection of Sample

From a listing of all home economics teachers in the state of Michigan, those within approximately a 30 mile radius of Lansing were contacted by letter (see Appendix E) and asked whether they would be willing to participate in the study. An Information Sheet describing the background and procedures of the study was included (see Appendix F). Similar letters were sent to extension clothing specialists, faculty members, graduate students, and senior students in advanced clothing courses in the department. All participants were invited to the university campus to view the slides during four selected times; the final viewing of the slides was conducted during three of these periods. Sixty letters were sent out; the final population consisted of 28 women.

## Administration of Instruments

The revised reactionnaire, score sheets and information sheet were checked by the participants. About one and one-half hours were required to present the audio-visual materials for evaluation and for the completion of the reactionnaire and sheet concerning information about the participants. During each of the three viewing periods the researcher attempted to keep the introduction and commentary as nearly similar as possible. The Information Sheet was read to the population to acquaint them with the background

and procedures of the study. Verbal commentary during presentation of the slides was kept to a minimum to better assess the value of the illustration in transmitting information. One circuit of three fluorescent lights was left on during the showing of the slides. This illumination probably interfered with the adequate perception of the visuals but was necessary in checking the score sheets.

# Analysis of Data

The reactionnaire and score sheets were analysed question by question. Data from closed questions were tabulated, and the information from open-ended questions was summarized and tabulated with reference to frequency of response. Conclusions and/or generalizations were drawn.

## CHAPTER IV

## ANALYSIS OF SCORE SHEETS

This chapter is concerned with a description of the population to whom the reactionnaire and score sheets were administered, and an analysis of the responses to the questions on Score Sheets A and B. The reactionnaire is analyzed in Chapter V.

# Description of Population

The population consisted of 28 women with varied occupations and experiences in the field of clothing, ranging from senior students in advanced clothing courses to university teachers and extention clothing specialists. A breakdown of the population according to present occupation was as follows:

Present Occupation	<u>Number of</u> Respondents
Homemaking teacher	12
Adult education clothing teacher	3
Supervisor of home economics	1
Extension clothing specialist	3
Faculty member in textiles and clothing	1
Graduate student in textiles and clothing	4
Senior student in textiles and clothing	4

Т	0	Т	A	L

The population represented a variety of teaching experiences in different levels of instruction. Of the 22 respondents who checked some teaching experience, eight had experience in junior and senior high school, university, or adult classes; 11 indicated experience in two fields; and three disclosed experience in three different types of situations.

In addition to obtaining an over-all evaluation of the slides the investigator was interested in determining whether or not there are differences in evaluations among students, teachers, and specialists. For the purposes of this study, "students" are considered as those respondents attending university classes and not having teaching experience, and "specialists" are those respondents in specialized fields of clothing or in supervisory positions.

Three senior students and two graduate students had had no teaching experience and were classified as students. The specialist category included three extension clothing specialists, one Michigan State University faculty member, and one supervisor of home economics. The eighteen respondents classified as teachers were all teaching, or had recently taught, either general home economics classes or special clothing construction classes.

Teaching backgrounds of the homemaking teachers ranged from student teaching experience for one respondent to over thirty years for another. The median for experience

for the group was five to nine years with eight respondents having less than seven years and eight having more than seven years, while the mean was 10.4 years.

The range of teaching experience for the specialists was from two years to almost thirty years. The median years of experience for the group was ten to 14 with two respondents having more than 14 years and two having less than 14 years. The mean experience for the group was 12.4 years.

The specialists in the population had a slightly greater number of years of teaching experience than the homemaking teachers. The teaching experience of the students, teachers, and specialists is as follows:

	Number and distribution of teaching						
	experienc	e of stude	nts, teachers	, and			
Experience	specialis	ts					
	Students	Teachers	Specialists	Total			
None	5	-	-	5			
Up to 4 years	-	8	1	9			
5-9 years	-	2	1	3			
10-14 years	-	2	1	3			
15-19 years	-	1	1	2			
20 or more years	-	4	1	5			
Total	5	17*	5	27*			

<sup>\*</sup>One respondent failed to indicate number of years of teaching experience.

Respondents were asked to rate themselves in terms of how experienced they felt they were in fitting a paper

pattern. Although the number of respondents in the student and specialist categories is small (five), both groups tended to feel they were "Fairly experienced." The home economics teachers were fairly equally divided among "Very experienced," "Fairly experienced," and "Fairly inexperienced." The self rating of the students, teachers, and specialists is as follows:

Level of Experience in Fitting a Paper Pattern	Number of students, teachers, and specialists at different levels of experience					
	Students	Teachers	Specialists	Total		
Very experienced	-	6	1	7		
Fairly experienced	3	6	2	11		
Fairly inexperienced	2	5	1	8		
Very inexperienced	-	-	-	-		
Total	5	17	4	26*		

One teacher and one specialist failed to indicate level of experience.

## Analysis of Score Sheet

A five point scale for both Score Sheets A and B was developed to rate the slides. The following scale was used for the ratings: 5--Very clear; 4--Reasonably clear; 3--Fairly clear; 2--Not very clear; and 1--Not at all clear. The investigator established an arbitrary cutting point of 3.5, or slightly above average, for the acceptance of the projected visuals. The author felt that any illustration rated below this level was unsuitable for the adequate transmission of information to the student. The over-all rating of the slides is presented first, followed by a breakdown and discussion of the differences in evaluations among students, teachers, and specialists.

Respondents were asked to evaluate the slides for achievement of purpose. The eleven slides in the introductory series appear to be acceptable as the average rating established by the respondents ranged from 4.1 to 4.7 (see Table 1) on a five point scale.

Table 1.--Average rating of students, teachers, and specialists for each of the eleven slides in the introductory series (Score Sheet A).

Slide Number	Avera	age Rating o	of Respondents	
Slide Number	Students	Teachers	Specialists	Total
1	4.6	4.7	4.2	4.6
2	5	4.35	4	4.4
3	4	4.35	4.8	4.4
4	5	4.6	4.4	4.6
5	4.2	4.6	4.4	4.5
6	4.8	4.8	4	4.6
7	4.8	4.5	3.6	4.4
8	4.6	4.8	4.4	4.7
9	4.6	4.55	3.8	4.4
10	4.8	4.2	3.2	4.1
11	4.8	4.55	3.2	4.4

The 11 slides in the introductory series (rated on Score Sheet A) carried only one illustration on each slide. Approximately one-third of those in the remaining 32 slides (rated on Score Sheet B) had only one illustration on the slide, and 20 had two illustrations on the same slide (see Appendix G).

Each of the ten series of slides showing fitting problems and alterations illustrated the following: (1) an improperly fitting pattern on the figure; (2) a suitable alteration in the flat pattern; (3) the altered pattern on the figure; (4) the garment as it would appear if cut from the unaltered pattern; and (5) the garment cut from the altered pattern.

In each of the ten series, the slide showing an improperly fitting pattern on the figure carries only one illustration on the slide. In most cases, an illustration of the alteration in the flat pattern and an illustration of the altered pattern on the figure appeared on the same slide. The alteration in the flat pattern appeared on the left hand side of the slide while the illustration of the altered pattern on the figure was placed on the right hand side of the slide.

Each of the ten series contained two illustrations in fabric placed on the same slide. An illustration of the garment as it would appear if cut from the unaltered pattern was placed on the left hand side of the slide, while an

illustration of the garment cut from the altered pattern appeared on the right hand side of the slide.

In all cases, where two illustrations appeared on the same slide they were rated separately for clarity and accomplishment of purpose. The illustration on the left was rated first, followed by the illustration on the right hand side of the slide. While each series contained from five to six separate illustrations they appeared on either three or four slides.

The ten separate slide series were shown in different order. Series A, B, C, D, and E were shown with the single illustration of the problem in the paper pattern first, (slide 1) followed by the slide of the pattern alteration in the flat pattern and altered pattern back on the figure (slide 2). The third slide (slide 3) in each series contained two illustrations; one of the problem in fabric cut from the unaltered pattern and the other of the altered garment.

Series F, G, H, I, and J were shown in reverse order with the slide of the illustrations of the problem in fabric and the altered garment shown first (slide 1). This was followed by the single illustration of the fitting problem shown in the paper pattern (slide 2). The third slide in the series contained two illustrations; the altered flat pattern, and the altered pattern on the figure.

Series H, I, and J had some variations from the general pattern. Both Series H and I had an extra illustration (slide 3) of the pattern alteration procedure on the figure which was shown in third place in the two series, after the illustration of the problem in the paper pattern. Series J contained an extra slide as the illustration of the pattern alteration in the flat pattern and the altered pattern back on the figure were not combined into the same slide.

The rating of the slides as they appear in Table 2, page 39, are organized according to the questions used to rate each type of illustration. Since the slides in the latter five series were not shown in the same order as the first five series, and in some cases did not contain the same number of slides, the slide numbers for the different series do not coincide and are shown separately. In all cases, where the same number appears in conjunction with two different questions, the first question concerns the illustration on the left hand side of the slide and the second question deals with the illustration on the right hand side of the slide.

All but two of the 52 separate illustrations evaluated by the respondents received a rating of 3.8 or more and were considered to be acceptable as teaching aids. Two of the illustrations, slide 1 Series B, and slide 3 Series I are marginal in accomplishment of purpose as they received ratings of 3.5 and 3.6 respectively.

B) °\* Table 2.--Questions used for rating and average ratings of students, teachers, and specialists for each illustration in each slide of ten series of slides (Score Sheet

Oution Hood for Doting	07:13	Category		Seri	es Numbe	٥r	
Question used for Kating	No.	or Respondent	A	В	υ	D	ш
"How well do you feel the problem is illustrated in the paper pattern?"	1	Student Teacher Specialist Total	4.2 4.65 4.4	33.5 3,5 3,5	3°6 4°1 4°2	4°2 4°4 4°4	4 8 4 7 4 6 4 6
"How well do you feel the pattern alteration procedure on the model is illustrated?"		Student Teacher Specialist Total					
"How clearly do you feel the altered pattern is illustrated?"	7	Student Teacher Specialist Total	4 4 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 8 ° 6 ° 6	4°4 •3 •3	4,6 4,6 4,6 4,6	4 ° 4 ° 4 ° 4 ° 5 ° 5 ° 4 ° 6	4 4 4 4 4 4 4
"How well do you feel the altered pattern fits the model?"	7	Student Teacher Specialist Total	4 4 4 °C • 2 6 ° 2	4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	, 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4°2 3°65 4°3.85	4 ° 8 4 ° 9 4 ° 2 4 ° 75
"How well do you feel the problem is illustrated in fabric?"	ю	Student Teacher Specialist Total	4 ° 8 4 ° 8 4 ° 7	4.34.8 6.28	3.8 4.3 3.95	4 4 4 4 • 4 • 4 • 5 • 5 • 5 • 5 • 5 • 5	5 5 4 ° 8 4 ° 95
"How well do you feel the altered garment fits the model?"	м	Student Teacher Specialist Total	4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	444 • • • 4 • • 1 • 1	4.2 4.55 4.35	3.6 4.1 4	ດູ <sup>4</sup> ດ

Table 2. -- Continued.

Question Used for Rating	Category of Respondent	Slide No.	Seri Numb F	es G	Slide No.	Ser. Numl H	les Jer I	Slide No.	Series Number J
"How well do you feel the problem is illustrated in the paper pattern?"	Student Teacher Specialist Total	2	4.6 4.55 4.2	4.4 4.6 4.6	5	4 4 4 . 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4.6 4.6 4.6	2	4 °4 3 • 4 • 1
"How well do you feel the pattern alteration procedure on the model is illustrated?"	Student Teacher Specialist Total		1 1 1 1		ы	5 4.7 4.8 8.8	3.6 3.6 3.6		
"How clearly do you feel the altered pattern is illustrated?"	Student Teacher Specialist Total	ю	4.8 4.8 8.8 6.8	44 33.2 9.2	4	4.6 3.8 5.8	5 4.6 4.6	ы	3.6 3.6 3.6
"How well do you feel the altered pattern fits the model?"	Student Teacher Specialist Total	м	4.8 4.7 4.6	4.5 4.5 5.4	4	4.6 4.3 3.8 4.25	5 4.8 4.4	4	4 <b>4 4 6</b> 4 <b>4</b> 4 4 6 4 6 4 6 4 6 4 7 6 7 6
"How well do you feel the problem is illustrated in fabric?"	Student Teacher Specialist Total	1	4.6 3.8 6.5 8.5	4 4 4 4 8 • 4 • 4 8 • 4 • 6	-	4 4 4 8 . 8 . 8 . 7 8 . 6 . 7 8 .	4.4 4.9 4.6 4.75	1	5 4 4 5 5 9 0 9 0
"How well do you feel the altered garment fits the model?"	Student Teacher Specialist Total	1	444 4.5 3.5	4.6 4.4 4.4	Ч	5 4 4 • 5	4.8 4.8 8.6 8.8	1	5 4 4 6 4 . 6

Notes:

\*For a rating of the slides in response to each question for each series read the columns from the top to the bottom, e.g., the five separate illustrations in series A received a total average rating of 4.4, 4.5, 4.2, 4.7, and 4.7 respectively.

to a particular question, read the table crosswise, e.g., the illustration of the problem in the paper pattern was given a total average rating of 4.4 in series A; 3.5 in series B; For a rating of each type of illustration in each of the ten series in response 4 in series C; 4.4 in series D; and 4.6 in series E, etc. Although Slide 1 Series B (see Appendix G) received the lowest rating of any slide in the total series, it was not among those the respondents suggested be deleted or improved. Part of the low rating may be due to the fact that it was the only slide showing two fitting problems at the same time.

Slides 3 of both Series H and I were made using the same techniques and methods--a close-up shot of the pinned-in alteration tuck; however, Slide 3 of Series H was given a 4.8 rating and Slide 3 of Series I was rated at 3.6. Several respondents made suggestions, such as adding color to the tuck, for the slide in Series I (see page 61) but the same technique used in the similar slide in Series H received no comment. A comparison of the illustrations would suggest that possibly part of the lower rating of the illustration in Series I is due to the pinned-in tuck being placed too near to the waistline seam which resulted in the proximity of the two lines interfering with the perception of the tuck.

A difference in rating expressed by respondents in answer to the question, "How well do you feel the altered garment fits the model," for Slides 3 of Series C and E is most interesting. These illustrations are duplicates of the same slide. The difference in rating given to the two illustrations (4.3 for the illustration in Series C and 5 for the same illustration in Series E) would indicate that possibly the respondents were not evaluating how well the altered

garment fit the model, but rather the amount of difference between the altered and unaltered garments. The same situation is evident in the ratings for the altered garments for Series G, H, and J. The illustrations of the altered garment used in the three series are duplicates of the same slide and were given ratings of 4.4, 4.5, and 4.7 respectively.

A breakdown of the ratings of the slides among students, teachers, and specialists evidenced some differerences in the ratings of the three groups. The students tended to give the highest ratings, while the specialists were inclined to give the lowest ratings to the illustrations. Of the 63 separate illustrations evaluated, the specialists gave the lowest rating of all the respondents in 73 percent of the cases. The specialists' ratings for the slides were lower than the students' on 79 percent of the illustrations and lower than the teachers' ratings on 68 percent of the illustrations. The differences in the ratings of the three groups may indicate that the specialists were evaluating the illustrations by a different set of criteria than were the students and teachers.

# Secondary Problems Visible in the Illustrations

The paper pattern is stiff and does not conform to body curves as well as fabric. The researcher was interested in obtaining an assessment as to whether or not the

stiffness of the paper created distracting problems. The illustration of the problem in the paper pattern was selected as a representative sample.

Slide 1 of the first five series showing fitting problems and Slide 2 of the latter five series both illustrated an improperly fitted pattern on the figure. Three questions on the score sheets dealt with this one illustration. Besides being asked to rate how well "the problem is illustrated in the paper pattern" the respondents were asked, "Do you feel there is any other problem visible in the picture?" and "If yes, what other problems are visible?" Respondents were also asked to rate how much they felt this problem, if one were visible, detracted from the main problem illustrated.

The secondary problems apparent in each illustration of the problem in the paper pattern and the amount each problem detracted from the illustration are discussed in detail later in the chapter. A summary of the problems apparent in each illustration of the problem in the paper pattern for each of the ten series of slides appears on the following page.

Slide 1 Series A showed a pattern too small through the waist area for a person with a thick waistline. The secondary problems most frequently mentioned were: lack of ease over the bust; a wrinkle at the waistline dart; and a problem with the armscye.

.

				Number	of	apparent	nt second	lary	y prob	len	ns Tob-
Slide Number	ar	nd Serie	<u>es</u>	lem in series	the of	paper slides	pattern	in	each	of	ten
Slide	1	Series	A				7				
Slide	ī	Series	В				7				
Slide	1	Series	С				7				
Slide	1	Series	D				9				
Slide	1	Series	Е				2				
Slide	2	Series	F				3				
Slide	2	Series	G				3				
Slide	2	Series	Н				1				
Slide	2	Series	I				3				
Slide	2	Series	J				3				

The secondary problems mentioned by the respondents, the number citing the problem, and the amount the problem detracted from the main problem illustrated are as follows:

	Number of res	spondents in	ndicating
Secondary Problem	a secondary p	problem in .	the illus-
Visible in the	tration and t	the amount <sup>.</sup>	the problem
Illustration	detracts from	n the illus	tration
	Number of responses	Amount de	the problem tracts*
Lack of ease over			
the bust	4	2,	2,2,3
Wrinkle at the waist-			
line dart	2	2,	3
"Armscye",	2	2,	3
"Bust dart too short"	1	4	
"Bust dart too small"	1	4	
"Raise underarm dart"	1	1	
"Waist dart overfitted"	1	4	

\*Rated on a five point scale with 5, A great deal; 4, Considerably; 3, Some; 2, Very little; and 1, None.

Slide 1 in Series B illustrated a pattern that required more length and width to fit over a high, prominent shoulder blade. The shoulder dart was also too long for the high shoulder blade. Ten of the respondents indicated there was a secondary problem visible in the illustration. A summary of the problems visible, the number of respondents reporting the problem, and the amount the problem detracts from the main illustration is as follows:

	Number of res	spondents indicating
Secondary Problem	a secondary j	problem visible in the
Visible in the	illustration	and the amount the prob-
Illustration	lem detracts	from the illustration
	Number of responses	Amount the problem detracts*
Shoulder dart too long	3	2,2,3
Short waisted at center back	2	1,3
Direction of shoulder dart	2	3,3
Armscye	2	2,2
Waist dart too short	2	2,3
Waist dart does not fit Neckline pulls away	1	3
from the neck	1	4

\*Rated on a five point scale with 5, A greal deal; 4, Considerably; 3, Some; 2, Very little; and 1, Not at all.

The author felt that those respondents who listed "Shoulder dart too long" and "Short waisted at center back" as secondary problems were probably not listening to the commentary as both of these faults were suggested as part of the original problem and were corrected in the pattern alteration.

The illustration of a pattern that did not have enough shoulder length for a person with broad shoulders (Slide 1 Series C) had a secondary problem visible to 18 of the women in the sample. The majority of those who considered another problem was visible in the illustration listed "Excess ease across the chest," "Bust dart too low," and a "Wrinkle from the bust to the neck" as being the secondary problems. A summary of the responses is shown below.

	Number of r	espondents indicating
Secondary Problem	a secondary	problem in the illus
Visible in the	tration and	the amount each
Illustration	thought the	problem detracted
	from the il	lustration
	Number of responses	Amount the problem detracts*
Wrinkle from bust to neck	5	3,3,3,3,4
Excess ease across the		
chest	4	2,3,3,3
Bust dart too low	4	2,3,3,4
"Darts too small"	1	2
"Neckline too small"	1	3
"Fit at shoulder above bus	t" 1	4
"Hard to say"	1	3

\*Rated on a five point scale with 5, A great deal; 4, Considerably; 3, Some; 2, Very little; and 1, None.

Slide 1 Series D illustrated a paper pattern too snug across the bustline. Sixteen of the women felt that a secondary problem was visible in the picture. The most commonly mentioned problems were the uneven shoulders of the model and a variety of comments about the bust dart. The secondary problems mentioned by the respondents, the number citing the problem, and the amount that the secondary problem detracts from the main problem are shown on the following page.

Secondary Problem Visible in the Illustration	Number of re a secondary tration and the problem lustration	espondents indicating problem in the illus- the amount each thought detracted from the il-
	Number of responses	Amount the problem detracts*
Uneven shoulders	6	2 2 2 4 4 5
Nackling too low	2	2,2,2,7,7,5
NECKIINE LOO IOW	2	2,4
Bust dart needs altering	2	3,4
Position of dart	2	4,4
Shoulder seam too long	2	2.2
Fit of dart below the	-	-,-
bust	2	3,4
"Waist dart too long"	1	-
"Short waist"	1	٨
"Pattern drops between the shoulder and the	*	-
neck"	1	3

\*Based on a five point rating scale with 5, A great deal; 4, Considerably; 3, Some; 2, Very little; and 1, None.

Nine of the respondents felt that a secondary problem was visible in Slide 1 Series E showing a pattern cut too high at the shoulder tip for a person with sloping shoulders. Eight of the women listed "Too long at the center front" as the only secondary problem visible in the illustration, while one person felt that the "Center front is not visible with the extra paper left on" was a problem but that it detracted "Very little" from the main problem illustrated. Of those who listed "Too long at the center front" as a problem, two thought it detracted "Some;" five that it detracted "Very little;" and one felt that it did not detract at all.

Only three respondents felt a secondary problem was visible in Slide 2 of Series F showing a sleeve pattern too long both above and below the elbow. One respondent listed "One long fingernail" as detracting "Considerably" from the illustration of the original problem; one listed "Sleeve too big" as detracting "Some;" and one stated "Must alter turn up at bottom of sleeve" to be a problem but did not rate how much she felt this problem detracted from the illustration.

Three of the women felt there was a secondary problem visible in Slide 2 of Series G showing a pattern too full over the bustline. One of the women felt that the second illustration on the slide was not necessary and detracted "Some" from the illustration of the problem, and one listed "Neck too high" as a problem but felt that it did not detract from the main problem. The third problem mentioned was "Dart length," and the respondents felt that this detracted "Considerably" from the main problem.

Only one respondent listed a secondary problem in Slide 2 of Series H which illustrated a pattern with too much fullness at the armscye; she felt that the "Bust is not right" but that it detracted "Very little" from the main problem as illustrated.

Slide 2 of Series I, showing a pattern too long waisted at the center back, had a secondary problem visible to three of the women. The three secondary problems listed

were: "Waistline is too small," "Center back is too far to the left," and a "Pucker running diagonally from the armscye." All respondents felt that the problem as listed detracted "Some" from the main problem.

Seven of the respondents listed secondary problems for Slide 2 of Series J which illustrated a paper pattern with the placement of the bust dart too low for the figure. "Too much length at the center front" was listed by six of the respondents as being a visible problem. The respondents felt this detracted "Considerably" from the main problem; three felt it detracted "Some;" and one indicated "Very little" detraction from the main problem. One respondent felt that the waist dart needed to be increased and that this detracted "Some" from the illustration; while one respondent felt that a problem centered around the "Armhole" detracted "Very little."

During the presentation of the slides the respondents became more discerning in their observation and evaluation, as evidenced by the reduced number of secondary problems ascribed to the illustrations. The paper pattern is stiff and does not conform to body contours as well as fabric. Informal discussions with the respondents, and some of the comments on the reactionnaire, indicate that the ability to isolate actual problems from apparent problems created by the stiffness of the paper pattern required some practice. One respondent commented that "Some of the wrinkles

in the patterns I'm sure were due to photographic enlargement of the problem," while another stated that "Some of the minor problems I thought I saw in the paper pattern disappeared after the major problem was corrected."

The investigator felt that had some of the illustrations in the later series been shown near the beginning of the viewing session, they, too, would have received a proportionately greater number of suggested secondary problems.

#### CHAPTER V

#### REACTIONNAIRE

This chapter is concerned with the over-all evaluation of the slides, the suggestions for slide improvement, the use of printed explanations on slides, and the order of arrangement of illustrations. The reactionnaire was analyzed question by question; the results appear in the following order: (1) presentation of illustration of problem in fabric, (2) use of printed explanations on slides, and (3) evaluation of slide series as a whole.

# Presentation of Illustrations of Problem in Fabric

All respondents agreed that the illustrations of a finished garment helped in understanding the fitting problems; 27 thought that they helped "Considerably," and one that they helped "Some."

Five series of slides were shown with the illustration in fabric placed at the end of the series, while five series had the fabric illustration placed at the first of the series. Respondents were asked "Which order of presentation do you feel made the fitting problem easier to understand?," and "Explain why you feel this way." (See Table 3)
Response	Total Number of Responses	Number of Responses	Reasons for Preference
Illustration in fabric	n 17	9	Easier to see the problem in fabric.
5110411 1115 0		6	Problem in fabric is closer to students' experience in fitting.
		5	Fabric fits the body contours betterhard to decide if the problem in paper is really a problem.
		2	More realisticless difficult to transfer knowledge to a dif- ferent medium.
		1	"With the paper first it was necessary to visualize in fabric what the paper would be trans- ferred <u>into</u> ."
		1	Interest was gained more quickly.
Illustration in fabric	n 7	4	Pattern first and fabric last is the logical arrangement.
SHOWN TASE		3	Markings on the paper pattern made the problem clearer.
		1	"Seems to be the way I would attack the problem as a student.'
		1	"I had my curiosity aroused about how this would look if we didn't bother with the fuss of altering the pattern."
Do not know	2	1	Not significant to me.

Table 3.--Number of respondents indicating preference for illustrations of the problem in fabric shown first and last in the series, and the reasons for the preference. The majority of the respondents (17) felt that the illustration in fabric shown at the first of the series made the problem easier to understand; seven thought the fabric illustration at the end of the series was better; and two answered "Do not know."

The most common reasons for placing the fabric illustraion at the first of the series were: the students were more accustomed to seeing a poor fit in garments than they were in the paper pattern; the problem was more evident in fabric than in the paper pattern; and the paper pattern, being stiff, did not conform to body contours and presented some distracting problems.

Those respondents who felt that the fabric illustrations should be placed at the end of the series felt it was more "logical" to start with the paper pattern as "the pattern is the basis and the beginning" of the sewing process.

A breakdown of the responses into student, teacher, and specialist categories indicated some differences in opinion among the three groups as to the placement of the fabric illustrations in the series. The majority of the students and home economics teachers favored the illustrations in fabric presented at the beginning of the series because the problem was "closer to the students' own experience in fitting" and "easier to see in fabric;" and the specialists tended to favor the "logical" arrangement

of placing the fabric illustrations at the end of the series because of the "natural correlation with the actual process of sewing."

The number of students, teachers, and specialists indicating preference for illustrations of the problem in fabric shown first or illustrations of the problem in fabric shown last was as follows:

Order of Presenting Illustrations of the Problem in Fabric	Number of students, teachers, and specialists indicating order of pre- sentation of the problem in fabric in the slide series			
	Students	Teachers	Specialists	Total
Fabric illustrations shown first	4	12	1	17
shown last	1	4	2	7
Do not know	-	1	1	2
Total	5	17	4	26*

\*One teacher and one specialist did not respond to the question.

Although the number of specialists in the sample is small, the data would indicate that possibly the specialists' arrangement of subject matter in the area of recognition and correction of fitting problems may not be the arrangement that students and teachers find the most beneficial.

# Use of Printed Explanations on Slides

Some slides in the introductory series contained printed explanations; the majority of the slides in the

later series had no printed explanations on the slides. In answer to the question, "Do you feel the printed explanations on the slides are helpful?", the majority agreed that the printed explanations were helpful: 22 answered "Yes;" four answered "No;" and two checked "Do not know."

While the respondents were in favor of the printed explanations that were used, there was less agreement as to the use of printed explanations on the slides showing fitting problems and alterations. In reply to the question, "Do you feel that printed explanations on those slides showing fitting problems and alterations would help clarify the illustrations?", 13 responded "Yes;" nine, "No;" and six, "Do not know."

When asked, "Explain why you feel this way" (see Table 4), the most frequently stated reasons for using printed explanations on the slides were: they would help to point out the specific problems to the student; any reinforcement would be helpful; and they would be helpful to serve as a review.

The respondents who said that printed explanations would not be helpful felt that printed explanations might detract from the problem or confuse the student; that the problem was clearer when the instructor pointed out the important points to focus attention upon; and that it would take more explanations than could be put on the slide.

-\_

Response	Total Number o Responses	f Number of s Responses	Comments
Yes	13	4	Would help point out specific prob- lems to the student.
		3	Any reinforcement would be helpful.
		3	Helpful to serve as a review.
		2	Not so dependent on the skill of the person talking.
		2	Information is retained longer by seeing explanations in print as well as hearing it explained.
		1	Some students grasp printed material easier than oral.
No	9	3	Printed explanations might detract from the problem or confuse the student.
		3	Would take more explanation than could be printed on the slide.
		3	Clearer when instructor points out the important points to focus atten- tion upon.
		2	Teacher can verbalize the problem better in relation to class needs and vocabulary.
		1	Explanation by narrator could help start questioning if not clear.
		1	"Commentary worked well here, but it should be either one <u>or</u> the other."
Do not k	inow 6	1	Depends on length and type of ex- planations.
		1	Depends on knowledge and skill of instructor. In a programmed situ- ation it would be more important.
		1	"Might confuse the student. Teachers explanation was clear and easy to follow."

Table 4.--Responses and comments in reply to the question, "Do you feel that printed explanations on those slides showing fitting problems and alterations would help clarify the illustrations?" A breakdown of the responses among students, teachers, and specialists evidenced differences of opinion as to the use of printed explanations on the slides. The students were in favor of printed explanations in case they "miss part of the explanations" or "want to go over it again." The teachers and specialists were fairly evenly divided between "Yes" and "No" as to the use of printed explanations (see Table 5).

Table 5.--Responses of students, teachers, and specialists to the question, "Do you feel that printed explanations on those slides showing fitting problems and alterations would help clarify the illustrations?"

D	Number of Responses				
kesponse	Students	Teachers	Specialists	Total	
Yes	4	8	1	13	
No	1	7	1	9	
Do not know	-	3	3	6	
Total	5	18	5	28	

### Evaluation of Slide Series as a Whole

When asked to rate the over-all effectiveness of the slide series as a teaching aid for illustrating fitting problems and pattern alterations, 16 of the respondents said they were "Excellent" and 11 rated them as "Very good." One person neglected to answer the question. Over half of the women thought the series would be most appropriate for use in classes with advanced senior high school students or beginning college students, but that they could also be used in both advanced and beginning adult classes and in classes of advanced college students. A summary of the responses to the question, "At what level of instruction do you feel the series would be appropriate? (Check as many as you feel are appropriate)" is shown below.

Level of Instruction for Which the Series	Number of
Would be Appropriate	Responses*
Jr. High Schoolbeginning students	1
Jr. High Schooladvanced students	7
Sr. High Schoolbeginning students	8
Sr. High Schooladvanced students	22
College or Universitybeginning students	24
College or Universityadvanced students	15
Adult classesbeginning students	18
Adult classesadvanced students	19
Others	5

\*Based on answers from 27 respondents.

In reply to the question, "Do you feel there are slides which should be deleted from the present series?", the majority felt that slides should not be deleted: seventeen replied "No;" and ten replied "Do not know." One person felt that slides should be deleted; she suggested leaving out the second illustration of the paper pattern too full across the bustline (Slide 2, Series G).

Those respondents who did not know whether slides should be deleted from the series gave the following reasons:

Number of Respondents	Comments of Respondents
2	Depends on instructors' methods and con- tent, and needs of students.
2	May be too many to show to a beginning class all at once.
1	Depends on verbal explanations.
1	Paper pattern illustration on Slide 2 of Series E and Slide 3 of Series I were confusing.
1	"Maybe the one showing the sleeve too long."
1	"Seemed complete to meall part of a unit."
1	"Would like to review all of the slides again before I would make any recommenda- tions."

When asked, "Do you feel additional slides are needed in some places for a smoother flow of ideas?", eight women responded "Yes;" eight said "No;" three checked "Do not know;" and three did not respond to the question.

Of the eight women who thought additional slides were needed, the most frequently mentioned suggestion was the need for additional illustrations of the steps between the recognition of the problem and the solution, particularly in the series involving the moving of the bust dart. A summary of the responses and comments appears in Table 6. Six respondents either made suggestions for additional series such as skirt alterations or commented on the briefness of the verbal explanations accompanying the slides and their answers were not included. Table 6.--Number of responses and comments of respondents indicating that additional slides are needed in some places for a smoother flow of ideas.

Number of Respondents	Comments
4	Additional steps in moving the bustline dart.
2	Repeat fabric illustrations at the end of the series.
1	Illustrations of the steps in the process of doing the alterations.
1	A preview of the problem at the beginning, then go into each problem as was done.
1	"Can't remember for sure."

When asked for suggestions for improvement of the illustrations, 11 of the respondents felt the illustrations were acceptable as they are, while 17 made suggestions for their improvement. The most frequently mentioned suggestions for improving the illustrations were: (1) better clarity of dart lines in the fabric illustrations as they were difficult to see in the blue fabric; (2) increase the prominence of the tuck in the alteration for the short back either by changing the camera angle or using red on the tuck; and (3) illustrate overlapping in a different color so that the difference between adding to the perimeter and reducing the perimeter would be clearer. A summary of the responses and their frequency of mention appear in Table 7. Table 7.--Number of responses and comments to the question, "What suggestions do you have for improving the illustrations?"

Number of Responses	Comments
4	Better clarity of dart lineshard to see in blue fabric.
4	Increase the prominence of the tuck in the back alteration either by changing the camera angle or use red on the tuck.
2	Illustrate overlapping in a different color so the difference between adding perimeter and re- ducing perimeter is clearer.
2	Use both front and side views of problems.
2	Red "true-up" lines are not too visibleuse another color.
1	Typing would look better on a colored back- ground.
1	Change color of fabric from one problem to the next.
1	Some problems might be clearer in a fabric with a stripe.
1	Side views are better than straight forward views.
1	Close-ups were better.
1	View entire bodice each time. More complete picture of the problem in relation to the entire bodice.
1	Most of the altered patterns laying on the paper were fuzzy and not clearover-all ap-pearance was <u>low</u> .
1	Improve the wrinkle from the bust to the shoulder line in fabric illustrations of Series D and G.
1	Background seemed dark in some, but not objec- tionable.

All of the women in the population felt there were advantages to using these slides to fitting and pattern alterations (see Table 8, page 63). Among the most frequently stated advantages for using the slides were: (1) easier for students to comprehend the problem and therefore the teacher's explanation could be less lengthy; (2) all could see the problem from the same perspective at the same time; (3) the advantage of showing the problem and the proper fit in both pattern and fabric at the same time; (4) a more complete range of problems discussed than what would probably occur in an actual class; and (5) the illustrations could be used as reference material by the students for study or rechecking of the problems.

In reply to the question, "Do you feel there are disadvantages in using these slides to teach fitting and pattern alterations?", 15 said there were no disadvantages; ten said there were disadvantages; and three said, "Do not know."

The most frequently stated reasons for feeling there were disadvantages to using the slides were: slides are only as clear as they are presented by the instructor, and it takes a skilled instructor to use slides; students still need explanations other than slides; and the series may be too much for a beginner to grasp. A summary of the responses and the number giving each response in shown in Table 9 (see page 64).

Number of Responses	Comments
8	Easier for students to comprehend the problem simplify lengthy discussion by the teacher.
5	All can see the same problem from the same per- spective at the same time.
4	Advantage of showing the problem and the proper fit in both pattern and fabric all at once.
3	More complete range of problems discussed than those which would occur in an actual class.
3	Could be used as reference material for study and rechecking.
2	Clearer and larger view than showing examples on a live model.
2	Before and after view of problem in fabric is particularly good.
2	More precise than demonstrations.
2	Students can focus their attention on the specific problem without being distracted by the total situation.
1	Student model is saved embarrassment from having her "problem" the focus in class.
1	Saves time over the use of illustrating with paper in front of the class.
1	"Seeing the problem and the alteration at the same time you are being told about them makes things much clearera straight lecture is confusing."
1	"When you actually become involved in these prob- lems in the laboratory or at home, although you may also have a text book describing the operation the slide makes it clearer as you have a mental picture of it."
1	"Much clearer than any illustrations I've seen. Bust for advanced students."
1	"Important to show students [materials] in every possible way since some do not understand written directions."

Table 8.--Number of responses with comments to the question, "What do you consider to be the advantages in using these slides to teach fitting and pattern alteration?" Table 9.--Number of responses and comments of respondents to the question, "What do you consider to be the disadvantages in using these slides to teach fitting and pattern alterations?"

Number of Responses	Comments of Respondents
4	Slides are only as clear as they are presented by the instructor. Takes a skilled teacher to use slides.
2	Still need explanations other than slides.
2	Series may be too much for a beginner to grasp.
1	Students can not refer to them as they can to an illustration.
1	Students may not feel there are additional variations.
1	Might be shown too quickly for some students to comprehend.
1	You do not see the complete picture of the pattern or garment on the person fitted.
1	"If one happens to have a slow class I am afraid these slides would not be too meaning- ful."
1	"The person presenting would have to know the technique."
1	"Hard for students to take notes in a dark room."

ŧ

# CHAPTER VI

#### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The beginning clothing construction course, Principles of Clothing Construction, at Michigan State University places emphasis on principles basic to the understanding and interpretation of clothing construction techniques, rather than on manual skills. The course consists of one two-hour lecture and one two-hour laboratory per week. Increased enrollment in the course has necessitated finding more efficient and effective methods of teaching. Instructors are finding previously used illustrative materials inadequate in the large lecture situation encompassing between 80 and 120 students.

This exploratory and descriptive study was undertaken to: (1) develop a set of slides to relate Principle I of the Principles of Clothing Construction to fitting and pattern alteration; (2) examine factors involved in the development of slides; and (3) evaluate effectiveness of slides by obtaining the reactions of a panel of judges.

Four instruments were developed to obtain data for this study: two score sheets; a reactionnaire; and an information sheet.

The score sheets were utilized to obtain an evaluation of the achievement of purpose and clarity of each illustration in the slide series.

The purposes of the reactionnaire were: (1) to determine the effectiveness the slide series as a whole; (2) to obtain an assessment of the slide series as to: (a) the most meaningful order of presentation, and (b) the utilization of printed information on the illustrations; and (3) to obtain suggestions of judges for improvement of the slides.

Through the information sheet background information and teaching experience of the respondents was secured. The reactionnaire and score sheets were pretested with a group of three faculty members and five graduate assistants in the Textiles, Clothing and Related Arts Department at Michigan State University.

Final viewing of the slides was conducted during three sessions with a total population of 28 women. The population was composed of five students, 18 homemaking teachers, and five specialists in home economics. Verbal commentary during presentation of the slides was kept to a minimum to better assess the value of the illustration in transmitting information.

One area of special interest to the researcher was the determination of the best time during the series to illustrate the problem in fabric, before or after the

paper pattern alterations. The majority of the respondents favored the illustrations of the problem in fabric shown first because they were closer to the students experience in fitting, and problems were easier to see in fabric than in paper.

The researcher was also interested in obtaining reactions as to the use of printed information on the slides. Although the respondents were in favor of the printed information used on the slides, little agreement was found on whether printed information should be used on slides showing fitting problems and pattern alterations. Twenty-two of the 28 respondents were in favor of the printed explanations that had been used; but fewer than half (13) expressed a desire for printed explanations on the slides showing fitting problems and alteration techniques; and nine expressed the opinion that printed explanations should not be used.

A division of the population into student, teacher and specialist categories revealed that the three groups were not always in agreement as to: the rating of the slides; the order of placement of the illustrations; or on the use of printed explanations on the slides. The specialists tended to rate the slides lower than either the students or homemaking teachers. Part of the explanation for this may be that the specialists were aware of more variables on which to judge the illustrations than were the students and teachers,

and thus the three groups were not evaluating the illustrations along the same dimension.

Analysis of responses in the reactionnaire to the question concerning the arrangement of subject matter revealed that the specialists' choice of arrangement in recognition of fitting problems and alteration procedures was not necessarily the order found most effective by the teachers and students. The students and homemaking teachers favored the illustration of the problem in fabric shown before the paper pattern illustration while the specialists favored the reverse order.

Based on the evidence presented in this limited study, the researcher feels justified in making the following general statements regarding the development and use of slides. Specific suggestions for the development of slides to illustrate fitting problems and alterations and suggestions for utilizing slides are also presented.

- A. General statements made by respondents regarding the development and use of slides indicate that they believe:
  - The slide series as developed would be an effective teaching aid for illustrating fitting problems and pattern alterations.
  - 2. The complete slide series would be most suitable for use in classes with advanced senior high school students and beginning college students and that selected illustrations would be suitable for use in

classes ranging from advanced junior high school level to adult classes, depending on the needs and abilities of the students.

- 3. Viewing a fitting problem in fabric before seeing it in a paper pattern makes the fitting problem easier to understand.
- 4. Specialists and students do not always agree on the most meaningful order of presenting information for comprehension of fitting problems and alteration procedures.
- 5. The advantages of using slides to illustrate fitting and pattern alterations in large group situations outweigh their disadvantages.
- B. Specific suggestions for the development of slides to illustrate fitting and pattern alterations:
  - Medium to heavy weight fabrics produce a more wrinkle-free illustration than do lighter weight fabrics.
  - Fitting problems in both paper and fabric that are exaggerated beyond "normal" are necessary for a clear illustration of the problem.
  - 3. Ease in both paper and fabric needs to be reduced to a minimum, and in some cases almost completely eliminated to produce the illusion of a proper fit in the illustration.

; ì ł

- 4. Patterns printed on heavier weights of paper produce an illustration more clearly showing the fitting problem and with fewer unwanted wrinkles than do patterns printed on lighter weights of paper.
- 5. Only one problem should be shown in each illustration to avoid confusion in the isolation of individual problems.
- 6. In colored illustrations, alteration tucks or darts undertaken in the paper pattern while on the figure would probably be clearer if shown in contrasting color.
- Alteration tucks running parallel to a seamline would be easier to see if not placed too close to the seamline.
- 8. The introduction of different colors or methods of graphic presentation help in clarifying the differences between spreading or overlapping the pattern in making alterations.
- C. Suggestions for utilization of slides:
  - Other visual materials should be shown in conjunction with slides.
  - 2. Slides should be supplemented with demonstrations of fitting on live models.
  - 3. All of the slides in the present series should not be shown at one time; the number used would depend on the needs and abilities of the students.

- Oral presentation accompanying slides should be individualized for specific class needs.
- 5. Teachers should be thoroughly familiar with the techniques and procedures used in slides.
- 6. Slides should not be shown too rapidly.

# Recommendations

From the findings of this study, the following recommendations for further study in the development and use of slides are presented:

- Conduct a follow-up study to determine the effectiveness of the slides in different classroom situations.
- Investigate procedures for transmitting information to students in other areas of clothing construction to ascertain the order of presentation students find most beneficial.
- Determine whether printed explanations on slides showing fitting problems and alterations are beneficial to students.
- 4. Investigate other areas of clothing construction suitable for presentation by projected slides.
- 5. Develop a series of slides to illustrate the application of Principle I of the Principles of Clothing Construction to other areas of fitting, such as skirts and sleeves.

- 6. Extend use of slides by:
  - a. duplicating illustrations in flat pictures for mounting on bulletin boards along with suitable printed explanations.
  - b. developing a manual for students to supplement the visuals.
  - c. utilizing slides in examination questions.

۰,

d. programing a rear projection unit with accompanying script or tape for self-study or review.

#### BIBLIOGRAPHY

#### Books

- Arny, Clara Brown. <u>Evaluation in Home Economics</u>. New York: Appleton-Century-Crofts, Inc., 1953.
- Bane, Allyne. <u>Creative Sewing</u>. New York: McGraw-Hill Book Co., Inc., 1956.
- Bishop, Edna Bryte and Arch, Marjorie Stotter. Fashion Sewing by the Bishop Method. New York: L. B. Lippincott Co., 1962.
- Bloom, Benjamin S., et al. <u>Taxonomy of Educational Objec-</u> <u>tives, Handbook 1: Cognitive Domain</u>. New York: David McKay Co., Inc., 1959.
- Brown, James W., Lewis, Richard B. and Harcleroad, Fred F. A-V Instruction, Materials and Methods. New York: McGraw-Hill Book Co., Inc., 1959.
- Erickson, Carlton W. H. Fundamentals of Teaching with Audiovisual Technology. New York: The Macmillan Co., 1965.
- Erwin, Mabel D. and Kinchen, Lila A. <u>Clothing for Moderns</u>. 3rd ed. New York: The Macmillan Co., 1964.
- Gross, Carl H. and Chandler, Charles C. <u>The History of</u> <u>American Education Through Readings</u>. Boston: D. C. Heath and Co., 1964.
- Haas, Kenneth B. and Packer, Harry Q. <u>Preparation and Use</u> of Audio-Visual Aids. 3rd ed. New York: Prentice-Hall Inc., 1955.
- Hillhouse, Marion and Mansfield, Evelyn. Dress Design. Boston: Houghton Mifflin Co., 1948.
- Hollis, A. P. <u>Motion Pictures for Instruction</u>. New York: Century Co., 1926.

- Johnson, William H. <u>Fundamentals in Visual Instruction</u>. Chicago: The Educational Screen Inc., 1927.
- Kemp, Jerrold E. <u>Planning and Producing Audiovisual</u> <u>Materials</u>. San Francisco: Chandler Publishing Co., 1963.
- Kinder, James S. <u>Audio-Visual Procedures in Teaching</u>. New York: American Book Co., 1950.
- <u>Audio-Visual Materials and Techniques</u>. New York: American Book Co., 1950.
- Kinder, James S. and McClusky, Dean F. <u>The Audio-Visual</u> Reader. Dubuque, Iowa: Wm. C. Brown Co., 1954.
- Mansfield, Evelyn. <u>Clothing Construction</u>. Boston: Houghton Mifflin Company, 1953.
- McClusky, Dean. <u>Audio-Visual Teaching Techniques</u>. Dubuque, Iowa: Wm. C. Brown Co., 1954.
- Ryan, Mary Shaw. <u>Clothing: A Study in Human Behavior</u>. New York: Holt, Rinehart and Winston, Inc., 1966.
- Ryan, Mildred Graves. <u>Dress Smart1y: A 100 Point Guide</u>. New York: Charles Scribner's Sons, 1956.
- Sands, Lester B. Audio-Visual Procedures in Teaching. New York: The Ronald Press Co., 1956.
- Seltiz, Claire, et al. Research Methods in Social Relations. rev. ed. New York: Holt, Rinehart and Winston, 1961.
- Strauss, Harry and Kidd, J. R. Look, Listen and Learn. New York: Associated Press, 1948.
- Wittich, Walter and Schuller, Charles. Audio-Visual Materials: <u>Their Nature and Use</u>. New York: Harper and Brothers, 1953.

## Articles and Periodicals

- Beher, Eldon A. "A New View in the Lab.," <u>Audio-Visual In-</u> struction, IX (October, 1964), 531-532.
- Bildersee, Max U. "Learning Is Motif for ETU Seminar," Audio-Visual Instruction, (November, 1957), 228-300.

- Byrne, Annette G. "Why Visual Aids," <u>The Educational Screen</u>, XVII (January, 1938), 8-9.
- Dale, Edgar. "New Understanding Through Visual Aids," Education, LVIII (October, 1937), 65-69.
- Emmert, Wilbur. "Standards for Selecting and Evaluating Still Pictures," <u>Educational Screen</u>, XVI (December, 1937), 317-318.
- Goodman, David. "The Principles, Origins, and Early Development of Educational Realism," <u>Educational Screen</u>, XXII, (March, 1943), 108-110.
- Hamilton, George E. "The Lantern Slide in Education," <u>The</u> <u>Stereograph and the Lantern Slide in Education.</u> <u>Meadville, Pa.: Keystone View Co., 1946. pp. 25-</u> 48.
- Kinder, James S. "Improving Classroom Instruction Through Audio-Visual Research," <u>Audio-Visual Administration</u>, eds. Fred Harcleroad and William Allen. Dubuque, Iowa: Wm. C. Brown Co., 1951. pp. 70-76.
- Meacham, Ester. "Television in the Clothing Classroom," Journal of Home Economics, LVI (February, 1964), 89-94.
- Meston, Mineta. "Vitalizing Teaching Through the Correct Use of the Still Picture," <u>Educational Screen</u>, XVI (April, 1937), 115-116.
- Morton, Grace. "Psychology of Dress," Journal of Home Economics, XVIII (1926), 584-585.
- Olsen, E. G. "Perspective in Audio-Visual Education," Educational Screen, XXV (March, 1946), 120-122.
- Sanborn, William B. "Our Future Stake in Instructional Tools," <u>Educational Screen and Audiovisual Guide</u>, XXXVIII (December, 1959), 638-641.
- Spaulding, S. "Communication Potential of Pictorial Illustrations," <u>Audiovisual Communication Review</u>, IV (Winter, 1956), 31-46.
- Stone, Gregory P. "Appearance and the Self," <u>Human Behavior</u> <u>and Social Processes</u>, ed. Arnold Rose. Boston: <u>Houghton Mifflin Co.</u>, 1962.
- Thralls, Zoe A. "The Selection and Use of Pictures," Journal of the National Education Association, XXI (November, 1932), 247-248.

- Trolinger, Lilia. "Evaluation of Still Pictures for Instructional Use," <u>Educational Screen</u>, XVIII (March, 1939), 81-83.
- Tyler, Ralph. "Education in a World of Change," <u>Journal of</u> <u>Home Economics</u>, LIV, No. 7 (September, 1962), 527-533.
- VanderMeer, M. A. "Color vs. Black and White in Instructional Films," <u>Audiovisual Communication Review</u>, 11 (1954), 121-134.
- Van Ness, Paul H. "A Plea for the Magic Lantern," <u>Educa-</u> <u>tional Screen</u>, LVIII, (February, 1939), 48.
- Veenendaal, Wilfred L. "The Visualization of an Idea," <u>Audio-Visual Instruction</u>, 11 (December, 1957), 260-262.
- Wagner, Robert W. "Design in Exposition," The News Letter, XVI, No. 3 (December, 1950), 1-4.
- Williams, Paul T. "Building Mental Images," <u>The Nation's</u> Schools, XLII, No. 6 (December, 1948), 54-55.
- Zisman, S. B. "Improving Illustrative Material in Textbooks," <u>Educational Screen</u>, XVII, No. 7 (September, 1938), 218-219.

#### Reports

- "Administrator's Workshop on Home Economics in Higher Education," A report compiled by Thelma Porter, College of Home Economics, Michigan State University, East Lansing, Michigan, August, 1960.
- Ford Foundation for the Advancement of Education. "Teaching by Television," New York: Ford Foundation, May, 1959.
- Nineteenth Conference of College Teachers of Textiles and Clothing, Central Region. "Proceedings of the Nineteenth Conference of College Teachers of Textiles and Clothing," East Lansing, Michigan, 1963. (Mimeographed)
- Office of Naval Research. "A Review of Literature Pertinent to the Design and Effective Use of Graphic Training Aids," Technical Report SDC 404-08-1, Port Washington, New York: Special Devices Center, 1956.

"Research and Theory Related to Audio-Visual Information Transmission," ed. Robert M. W. Travers, University of Utah, Bureau of Educational Research, 1964.

### Unpublished Material

- DeLong, Marilyn Revell. "A Study of Student and Faculty Reactions to the Teaching of a Course in Principles of Clothing Construction," Unpublished Master's thesis, Michigan State University, 1962.
- Hogan, Catherine. "Research in the Preparation of Illustrative Material for Advanced Dressmaking Courses," Unpublished Master's thesis, Cornell University, 1948.
- Kernaleguen, Anne Paul. "The Application of Principles of Clothing Construction to Pattern Making and Designing with Emphasis on Fitting," Unpublished Master's thesis, Michigan State University, 1963.
- Ostapovitch, Annette. "A Study of Motives for and Satisfactions of Home Sewing as Expressed by a Selected Group of Michigan Homemakers Who Do Home Sewing," Unpublished Master's problem, Michigan State University, 1961.
- Thar, Margaret. "Problems in Pattern Fitting," Unpublished Master's problem, Michigan State University, 1959.
- Zack, Margaret. "Problems in Pattern Fitting," Unpublished Master's problem, Michigan State University, 1959.

APPENDICES

# APPENDIX A

# SCORE SHEET A

Score sheet A is to be used for the first group of slides.

Circle the number that indicates how adequately you feel each of the following slides accomplishes its intended purpose.

	Very Cl <b>e</b> ar	Reasonably Clear	Fairly Clear	Not Very Clear	Not at all Clear
1.	5	4	3	2	1
2.	5	4	3	2	1
3.	5	4	3	2	1
4.	5	4	3	2	1
5.	5	4	3	2	1
6.	5	4	3	2	1
7.	5	4	3	2	1
8.	5	4	3	2	1
9.	5	4	3	2	1
10.	5	4	3	2	1
11.	5	4	3	2	1

# APPENDIX B

## SCORE SHEET B, FORM I

Score sheet B is to be used for the second group of slides.

SERIES NUMBER (Used for rating Series A, B, C, D and E)

Slide 1.

1. Circle the number that best describes how well you feel the problem is illustrated in the paper pattern.

Problem	very clear	5
Problem	reasonably clear	4
Problem	fairly clear	3
Problem	not very clear	2
Problem	not al all clear	1

2. Do you feel there is any other problem visible in the picture? Circle Yes, No, or Do not know.

Yes No Do not know

If yes, what other problems are visible?

3. If another problem is visible, how much do you feel this secondary problem detracts from the main problem illustrated?

A great deal	5
Considerably	4
Some	3
Very little	2
None	1

Slide 2.

4 、	How clea lustrate	arly d ed?	o you	feel	the	alter	red	patte	rn i	is	il-
		Very Reaso Fairl Not v Not a	clear nably y clea ery c t all	clean ar lear clean	• •			5 4 3 2 1			
5.	How well model?	L do y	ou fe	el the	e alt	tered	pat	tern	fits	; t	he
		Very Reaso Fairl Not v Very	well nably y wel ery we poor	well 1 ell				5 4 3 2 1			
Slide 3	• •										
6.	How well fabric?	L do y	ou fe	el the	e pro	oblem	is	illus	trat	ed	in
		Very	well	wo 11				5			
		Fairl	y wel					4 3			
		Not v Verv	ery w	e11				2			
7.	How well model?	l do y	ou fe	el the	e alt	tered	gar	ment	fits	; t	he
		Very	well					5			
		Reaso	nably	well				4 z			
		Not v	ery wer	e11				2			
		Very	poor					1			
SERIES	NUMBER F	(Used	for	rating	g Sei	ries H	F <b>,</b> G	, and	J)		
Slide 1	0										
1.	Circle f feel the	the nu e prob	mber lem i	that t s illu	)est 1stra	desci ated i	ribe in f	s how abric	we]	11	you
		Very Reaso Fairl Not v Very	well nably y wel ery w poor	well 1 ell				5 4 3 2 1			

2 .	How well model?	. do you	feel	the	altered	l gar	ment	fits	the
		Very wel Reasonab Fairly w Not very Very poo	l oly we vell well or	11			5 4 3 2 1		
Slide 2.	,								
3.	How well the pape	. do you er patter	feel n?	the	problem	n is	illus	trate	d in
		Problem Problem Problem Problem Problem	very reason fairly not ve not a	clea nabl y cl ery t al	r y clean ear clear l clean	r	5 4 3 2 1		
4.	Do you f the pict	eel ther ure? Ci	rcle	any Yes,	other p No, oi	orobl r Do	em vi not k	sible	in
		Yes No Do not k	now						
	If yes,	what oth	ner pr	oble	ms are	visi	ble?		
5.	If anoth this sec lem illu	ler probl condary p istrated?	em is proble	vis m de	ible, ł tracts	low m from	uch d the	lo you main	feel prob-
		A great Consider Some Very lit None	deal ably tle				5 4 3 2 1		
Slide 3.									
6.	How clea lustrate	rly do y d?	rou fe	el t	he alte	ered	patte	ern is	i1-
		Very cle Reasonab Fairly c Not very Not at a	ear oly cl clear v clea ill cl	ear r ear			5 4 3 2 1		
7.	How well model?	do you	feel	the	altered	i pat	tern	fits	the
		Very wel Reasonat Fairly w Not very Very poo	ll oly we vell v well or	11			5 4 3 2 1		

Slide	1.								
1.	Circle feel th	Circle the number that best describes how well you feel the problem is illustrated in fabric.							
		Very well		5					
		Reasonably well	L	4					
		Fairly well		3					
		Not very well		2					
		very poor		1					
2.	How wel model?	l do you feel th	ne altered gar	ment fits the					
		Very well		5					
		Reasonably well	L	4					
		Fairly well		3					
		Not very well		2					
		Very poor		1					
Slide	2.								
3.	How wel the pape	l do you feel th er pattern?	ne problem is	illustrated in					
		Problem very cl	lear	5					
		Problem reasona	ably clear	4					
		Problem fairly	clear	3					
		Problem not ver	ry clear	2					
		Problem not at	all clear	1					
4 .	Do you the pic	feel there is an ture? Circle Ye	ny other probl es. No. or Do	em visible in not know.					
		V	,						
		ies							
		NO Do not know							
		DO HOL KHOW							
	If yes,	what other prob	olems are visi	ble?					
5.	If anot this se lem ill	her problem is v condary problem ustrated?	visible, how m detracts from	uch do you feel the main prob-					
		A great deal		5					
		Considerably		4					
		Some		3					
		Very little		2					
		None		1					

Slide 3. 6a. How well do you feel the pattern alteration procedure on the model is illustrated? Very well 5 Reasonably well 4 Fairly well 3 2 Not very well Very poor 1 Slide 4. 6b. How clearly do you feel the altered pattern is illustrated? 5 Very clear 4 Reasonably clear Fairly clear 3 Not very clear 2 Not at all clear 1 How well do you feel the altered pattern fits the 7. mode1? Very well 5 Reasonably well 4 3 Fairly well Not very well 2 Very poor 1
#### APPENDIX C

#### REACTIONNAIRE TO SLIDE SERIES

The purpose of this reactionnaire is to obtain your assessment of the slide series as a whole.

1. Do you feel the slides showing a finished garment helped you to understand the fitting problem?

Considerably \_\_\_\_ Some \_\_\_\_ Very little \_\_\_\_ Not at all \_\_\_\_\_

2. Some of the series showing fitting problems were organized with the illustration of the problem in fabric shown first while others had the illustration in fabric placed at the end of the series. Which order of presentation do you feel made the fitting problem easier to understand?

Illustration of problem in fabric shown first \_\_\_\_\_\_ Illustration of problem in fabric shown last \_\_\_\_\_\_ Do not know \_\_\_\_\_

Explain why you feel this way.

3. Do you feel the printed explanations on the slides are helpful?

Yes No Do not know

4. Do you feel that printed explanations on those slides showing fitting problems and alterations would help clarify the illustrations?

Yes \_\_\_\_\_ No \_\_\_\_ Do not know \_\_\_\_\_

Explain why you feel this way.

5. Do you feel there are slides which should be deleted from the present series?

Yes No Do not know

If yes, which ones would you leave out?

6. Do you feel that additional slides are needed in some places for a smoother flow of ideas?

Yes \_\_\_\_\_ No \_\_\_\_ Do not know \_\_\_\_\_

If yes, what places do you feel require additional illustrations?

- 7. What suggestions do you have for improving the illustrations (e.g. format, color, fabric, camera angle).
- 8. How would you rate the over-all effectiveness of the slide series as a teaching aid for illustrating fitting problems and pattern alterations?

Excellent \_\_\_\_ Very good \_\_\_\_ Average \_\_\_\_ Fair \_\_\_ Poor \_\_\_\_

9.	At what level of instruction do you feel the series would be appropriate? (Check as many as you feel are appropriate.)
	Jr. High Schoolbeginning students
	Advanced students
	Sr. High Schoolbeginning students
	Advanced students
	College or Universitybeginning students
	Advanced students
	Adult classesbeginning students
	Advanced students
	Others (specify)

10. Do you feel there are advantages in using these slides to teach fitting and pattern alterations?

Yes \_\_\_\_\_ No \_\_\_\_\_ Do not know \_\_\_\_\_

If yes, what do you consider to be the advantages?

11. Do you feel there are disadvantages in using these slides to teach fitting and pattern alteration?

Yes \_\_\_\_\_ No \_\_\_\_\_ Do not know \_\_\_\_\_

If yes, what do you consider to be the disadvantages?

## APPENDIX D

### INFORMATION CONCERNING PARTICIPANTS

- 1. What is your present occupation?
- 2. Have you ever taught clothing construction classes?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, how many years have you taught clothing construction at each of the following levels?

Level

Years taught at level

Jr. and Sr. High School College or University Adult classes Others (specify)

3. How would you rate yourself in terms of your experience in fitting a paper pattern?

Very experienced	
Fairly experienced	
Fairly inexperienced	
Very inexperienced	

#### APPENDIX E

#### LETTER TO JUDGES

Members of the staff in textiles and clothing at Michigan State University have been experimenting with slides to illustrate fitting and pattern alteration techniques. Would you be willing to help us evaluate the usefulness of our slide series as a teaching aid? We estimate you will need a one and one-half hour block of time for this evaluation.

Could you come to the university to view the slides, either during the day or evening, sometime between March 14 and March 17? We are interested in obtaining the reactions of a group of sophisticated judges with varied backgrounds and experiences in clothing construction. Your assessment will be very valuable to our study. An information sheet to give you additional information about our slide series in enclosed.

Would you complete the enclosed card and return it as soon as possible. You will note there are four periods of time listed on the card; please check as many times as would be convenient for you. You will be contacted by telephone during the next few days to set a definite time to see the slides. We are looking forward to meeting you at that time.

We thank you for your cooperation.

Yours truly,

Gwen Daley Graduate Assistant

Mary Gephart, Chairman Textiles, Clothing and Related Arts

Enclosure

## APPENDIX F

#### INFORMATION SHEET

Teachers of clothing construction at Michigan State University have been experimenting with the principles approach in teaching clothing construction over the past five years. Four broad principles have been developed as a basis for the classroom lectures and for an understanding of patterns, fitting and alteration, and construction processes. These principles are stated as follows:

- I. Shaping flat fabric to conform to body curves requires reducing the perimeter of garment pieces.
  - Corollary 1: The amount of reduction of the perimeter of garment pieces is relative to the degree of prominence of body curves.
  - Corollary 11: Darts, tucks, gathers, and ease radiate from the most prominent body curves to be covered by a given garment piece.
- II: Manipulation of any given material is dependent upon its component parts.
  - Corollary 1: Structure is a determinant of the extensibility of fabric.
  - Corollary 11: Texture is a determinant of the behavior of fabric.
- III: When concentric circles or arcs of different radii are used in clothing construction, certain adjustments in the circumferences are necessary.
  - IV: Choice of construction methods and techniques and choice of fabric are interrelated.

This study is concerned only with Principle I, which applies directly to fitting and pattern alteration. For the Reactionnaire and Score Sheets you are being asked to evaluate only the fitting and alteration techniques and the general application of Principle I, not the Principle itself.

Teachers in clothing instruct the students to use the following techniques and methods which are not intended to be a part of your evaluation:

- 1. The paper pattern is fitted on the figure.
- 2. Tapes placed around the figure are used to anchor the paper pattern for the fitting.
- 3. Points of bulge are marked, alteration tucks, darts, and folds are pinned into the pattern and other alterations noted on the pattern.
- 4. The cut and slash method of paper pattern alteration is the acceptable method of accomplishing the alterations.

The slides you will see have been developed for use in an introductory clothing construction course at the college level. Many of the students enrolling in the course have had <u>very little or no previous experience</u> in fitting and pattern alteration.

Each slide will not be discussed as it would be used in an actual learning situation. The commentary with these slides will consist of either a very brief discussion or merely a statement of the intended purpose of each slide. For the purposes of this evaluation the slide series has been divided into two groups. The first group of slides consists of a basic introduction to Principle I and general fitting and alteration procedures. Please use score sheet A for these slides.

The second group of slides has been prepared to help the student understand problems frequently encountered in fitting and pattern alteration. Each series consists of five or six illustrations showing: (1) a pattern requiring alteration; (2) the alteration in the paper pattern; (3) the altered pattern on the figure; and (4) the finished garment as it appears before and after the alterations are made. Please use score sheet B for this group of slides.

# APPENDIX G

## PHOTOGRAPHS OF SELECTED SLIDES



Slide 2. Introductory Series



Slide 3. Series B



Slide 1. Series I

