A BASIS FOR TEACHING CLOTHING CARE TO HIGH SCHOOL SENIORS

by

Mary Dimeck

A PROBLEM

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

1968

ACKNOWLEDGMENTS

Several people have contributed their interest, suggestions, and encouragement in the development of this study.

I am grateful to the members of my committee: Dr. Mary Gephart and Dr. Elinor Nugent for their suggestions and encouragement in developing the questionnaire. I am appreciative of the time, interest, and patience given by Dr. Gertrude Nygren for her suggestions and evaluation of the study.

Appreciation is expressed to members of the community and school personnel where this study took place.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

Statement of the Problem

One of the by-products of almost full employment since World War II is the prevalent teenage part-time wage earner. Adolescents earn billions of dollars in part-time jobs after school or on Saturday working in local shops, supermarkets, filling stations, baby sitting, and doing odd jobs around home and elsewhere.

This situation contributes to an increase in clothing purchases which effects all facets of the clothing-textile industry. It is becoming commonplace for students to develop wardrobes of high fashion in a wide variety of fabrics and textiles. Accompanying this accumulation of purchasing power there may be a need for knowledge to enable these consumers to care for clothing in the specific manner many garments require in order to preserve their desirability.

There is some recognition by parents and school administrators of the importance of teaching care of clothing to a teenage girl, but very little thought has been given to the possible needs of boys. It may be that an increased interest in clothing means that boys as well as girls are concerned about care of their clothing. Some of this interest of boys was discovered when the boys responded positively to a

demonstration on clothing care usually presented only to classes of girls.[a]

Background Information

The role of the home economics teacher is changing from that of teaching homemaking skills to girls to teaching more about consumer competencies to boys and girls.(18) Much has been written in books, periodicals, bulletins and theses relating to the consumption of material innovations in the textile industry and in the subsequent care these new choices demand.(30,32) Thus, a knowledge base for consumer education in this area is probably more possible today than every before. However, because helpful information is printed does not mean the consumer has the advantage of its use.

An acute awareness of the value of reading labels in order to follow the recommended care procedures is of primary importance. New processes have changed some of the older products so much that the average consumer cannot be expected to know the appropriate care and predicted performance without an understanding of the manufacturers suggestions.(9) In line with the demands of current product changes, on March 1, 1968, the Wool Bureau introduced a new care label specifying whether wool fabrics could be washed safely by machine, washed by hand or dry-cleaned.(10)

The do-it-yourself dry-cleaning establishments in the city where this study was made have multiplied three fold in the past two years. In order to capture the local and surrounding trade, they have made available

[a]A local private utility company which has been dynamic in its approach to customer relations and community consciencesness presented this program.

a series of free pamphlets emphasizing that "dry-cleaning is easier than washing."(12) The pamphlet explains the process of dry-cleaning in an easy to understand, non-technical style, but the implication is, of course, if it is easier it is better.

Another worthwhile and rather new area worthy of study is covered under the topic fabric finishes. As an example, durable press, first introduced in men's slacks, has now expanded into many garments. Women's dresses, mens' shirts, sportwear as well as children's clothing and rainwear are among the ready-to-wear garments being finished by durable press processes and are available for purchase in the retail stores. A comparison of wash-and-wear and durable press was made in a study by Hearne and Broome.(14) The results of this study showed that permanent press garments are superior with respect to appearance factors, but the wash-and-wear fabric finishes generally exhibited greater strength and durability as measured by dimensional stability, breaking load, tearing strength and abrasion.

During the demonstration on care of clothing to students in family living classes, the representative from the local utility company (34) showed the laundered results of a pair of trousers constructed in such a way that one side had been finished with a durable press process and the opposite side with the wash-and-wear finish process. This visual aid was effective as a teaching method because it clearly indicated the differences in finishes.

Students revealed a considerable amount of interest in home methods for removing stains from fabrics and helpful information is available. Standard home economics textbooks, bulletins and pamphlets contain information

relative to spot and stain removal are readily acquired from the U. S. Department of Agriculture.(28)

More information is obtainable in current newspapers and periodicals. Consumer Reports proved to be a valuable source of information in its publication reporting on an investigation of readily available safe and unsafe spot removal agents.(20)

Importance of the Study

The purposes of this study were to:

(1) learn what students know concerning care of clothing

(2) suggest methods of disseminating textile care information to both boys and girls in senior high school.

The goal of this study is to gain information to use as a basis for developing an instructional program which will help the students become aware of merchandising techniques used to obtain their dollars. During the time of the study two independent merchants in the local community approached this teacher requesting the opportunity to speak specifically to the senior classes to acquaint them with their products.[a] While at no time was obvious salesmanship displayed by these people, such programs provide classes with opportunities to check the information given against other authoritative sources.

[a]Hill, Maxine. Fine Arts Tablewear representative who talked with the students, June 1968.

Shalon, Marvin. Shifrin-Willens Jewelers manager who talked with the students, May 1968.

Three important factors have resulted in increased sales pressure on teenagers:

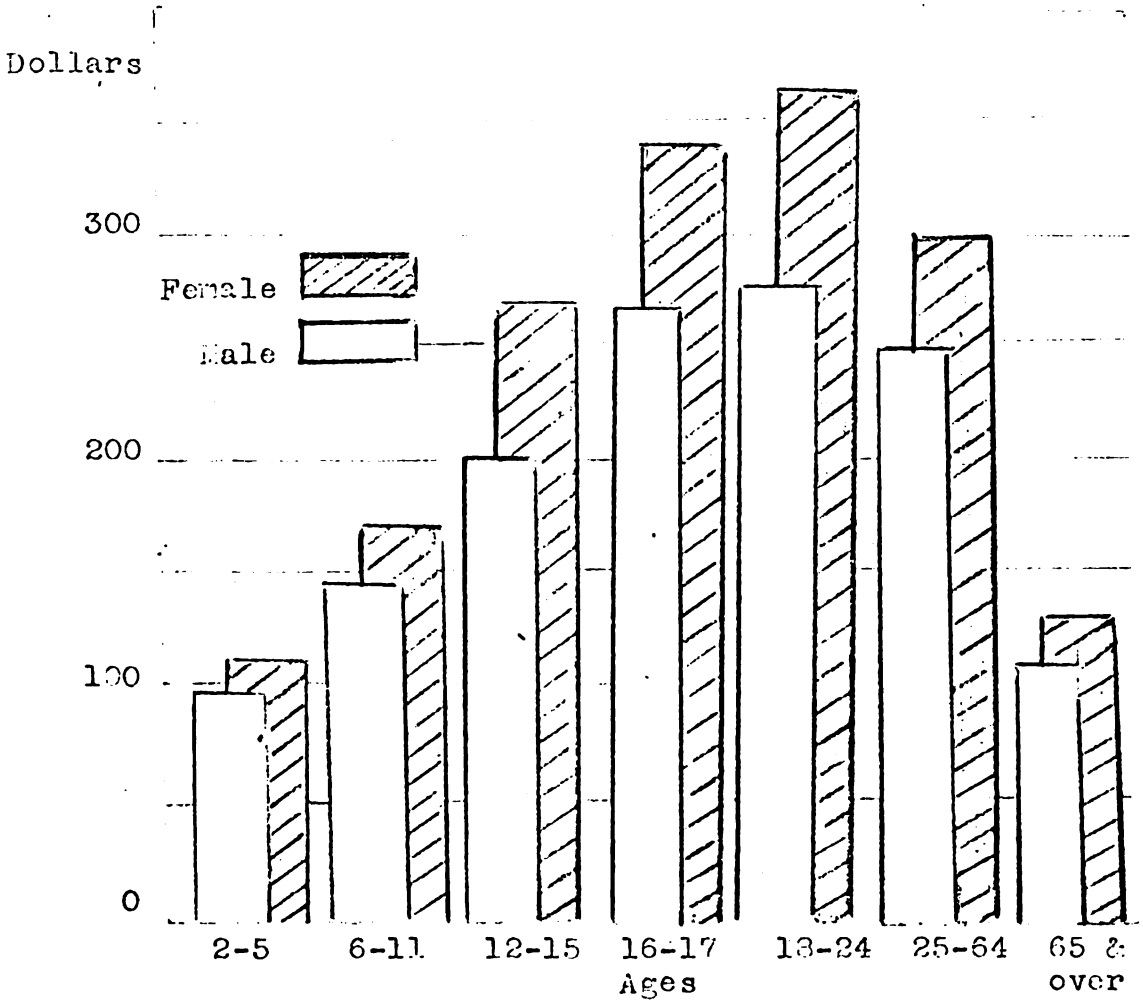
(1) the millions of dollars in teen-age hands
(2) the teen-age role as innovator and fashion leader
(3) the indirect buying influence the teenager has on family consumption patterns.(2)

The Department of Commerce and the Bureau of Labor Statistics prepared a graph (see Figure 1) showing the high rate of apparel spending by today's youth.(23) This graph depicts visually the impact of the present teen market to the merchandising industry. Marketing programs have undergone a change in style and tactics which have promoted the teenager to a leadership role in today's fashion world. Present day appeals in all facets of the industry lure the teenager by emphasizing that which appears romantic or sounds exciting.

As a result of the increased interest of teenagers in consumer goods, a strong influence is felt in the buying habits of other family members. There is some evidence to indicate that the teenager has a voice in the selection of many home commodities but it is particularly shown in the choices made in family clothing. It is for this reason also that many sales appeals are directed to the teenager.

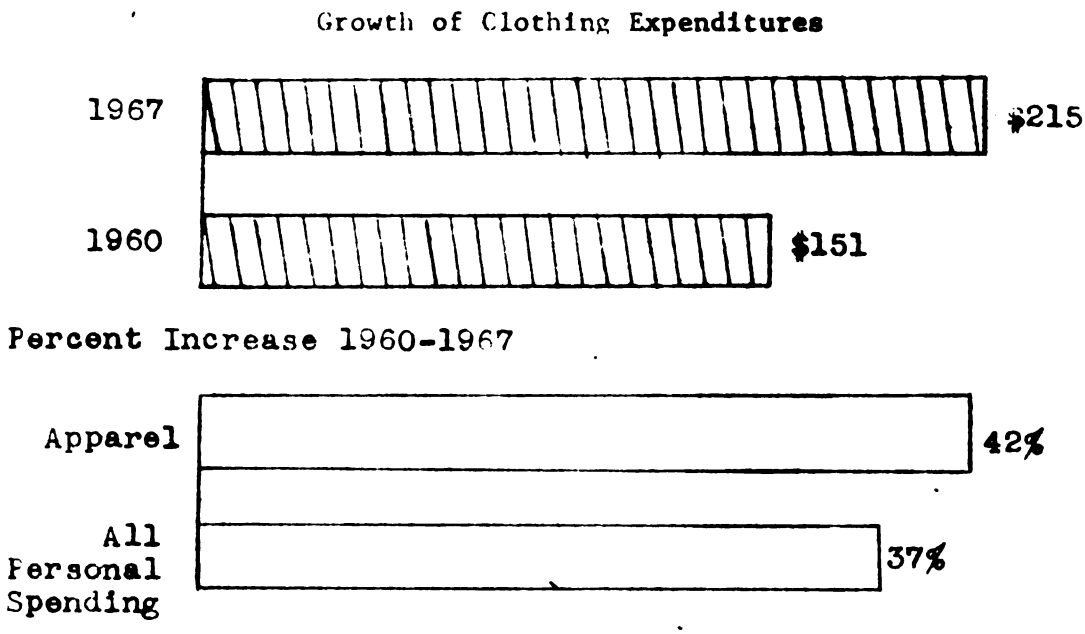
We see today the rapid appearance and disappearance of clothing fads and fashions because the country's present economy is such that it is able to support continual change. To indicate the growth of the clothing market, the per capita clothing expenditures have increased five percent above all personal spending within the past seven years as shown by Figure 2.

FIGURE 1.-- Urban U.S., 1967 Spending on Apparel by Age and Sex



Sources: Department of Commerce
Bureau of Labor Statistics
Washington, D.C., March, 1968

FIGURE 2. -- Per capita clothing expenditures



Although at first glance it may appear that higher prices for clothing and clothing services are responsible for the increase of expenditures in this field, it must be noted that three-fifths of the recent increase in purchases of apparel represents real relative growth in apparel outlays. In prior years, slower than average increases in apparel prices accounted for part of the decline in apparel spending.(23)

Justification for Teaching Care of Clothing

Traditionally in our culture one of the responsibilities falling upon the teenager has been to learn and practice good personal care

techniques. It has been an unheralded obligation where only those who ignore the standard receive recognition. Although it is understood that time, place and facilities can alter the situation, an attempt should be made to help the student learn the expected social standard of his society. Whether he decides to follow it or not, social demands are made upon the youth in both obvious and obscure manners. Some of the factors which may determine the assumption of undivided responsibility seem to be the degree of personal independence, the amount of family support and the adult examples observed. Peer, community and civic expectations are also factors. This particular community has shown a strong inclination to control teenage wearing apparel by means of ridiculing those who are outside of the normally accepted sphere. It is understood, however, that criticism by those of equal status has a stronger impact upon the individual than anything originating outside of his own peer group.(29)

Another example of the demand for knowledge in clothing care by boys is to be found in the military service where the inductee is required to service his own apparel.(39) A high percentage of boys in this study face a minimum of a two year military obligation. With some understanding in the upkeep of clothing, the task may not seem as tedious.

The adolescent girl, aware that she is living in a society that frowns on single-blessedness and faced with the fact that women are beginning to outnumber men in many areas of the country, is convinced that "what really counts" is to carry on social and emotional relations that will make her popular and ultimately attract the right boys.(2) The most prescribed method of arriving at these goals is by a discreet selection and the proper

care of wearing apparel. The findings in Table 1, "Marital Status of Students in Sampling," imply that a great number of girls who are graduating seniors will also soon be facing the responsibility of clothing care that comes with marital obligations.

CHAPTER II

METHODOLOGY

The Community Setting

The community in which the writer teaches and where the study was completed is a relatively new suburb, having been incorporated into a large midwest city in 1958. Because a population of 60,000 people live within a nine and one-half square mile area, the suburb is hampered in its attempt at expansion and development.(36)

Industrialization is already high in this urban community with many factories which are feeders for the big three automobile manufacturing firms--General Motors, Chrysler and Ford. Employment is steady, but the population is nevertheless fairly mobile.

Property values are modest, with the average home ranging in the $14,000 to $16,000 bracket. The average factory worker in the area reports a $6,800 annual income. Poverty, as such, goes relatively unrecognized.(36) Although recreational facilities are not exceptionally abundant, there are facilities for all age levels. In close proximity to this suburb there are parks, golf courses, and other places of recreation such as football and baseball leagues, civic players clubs, bowling alleys, and organizations such as Girl Scouts, Boy Scouts, Brownies and Cubs.(35)

Federal and state social agencies are also present in the local area. These services are both privately and publicly supported. Among

the many social services available to the population of the suburb are health and child guidance, marriage counseling, adoption agencies, alcoholic and drug addiction aid. The alcoholic and divorce rate of the area may contribute to the number of single parent families.

The education of the average citizen in this community approximates the eighth grade level. The economic level of achievement by the students' parents and grandparents has been raised to a lower-middle class status from an upper-lower class status.(37)

The middle age group seems to consider the purchase and ownership of car, color television and a big paycheck as social status symbols. The adult lack of interest in education has recently resulted in millage proposal failures and the resultant lack of adequate school facilities. The attitude of the voting public together with a lag in construction in the area has created a difficult situation in the local high schools. Most high school students are on a modified half-day session and as a consequence find the lure of jobs difficult to resist. This attitude leads to student job placement which too often takes priority over the school attendance. The school system itself is based on a six-three-three plan, and consists of twenty-six elementary schools, three junior high schools, and two high schools.

In this area are found four parochial elementary schools and one high school plant. In addition, the county supports schools for those requiring special education and training for the terminal student. There are also a few private trade schools consisting primarily of schools of

cosmetology for girls and electronics for the boys.

Many local organizations have contributed positively to the noticeable increase in school interest. The local Kiwanis, Rotary, Veteran's of Foreign Wars, Parent-Teacher Student Association and the Citizen's School Committee have been greatly responsible for the development of student incentives in the form of scholarships and grants.(33)

Education, however, is making inroads in this community. There has been a significant increase in the number of students going into higher education. The quest for continued education after high school is in direct opposition to status standards which were placed on the family by the middle-aged people in the community.

Among the new school facilities (and perhaps the most influential single factor in the past five years) is the community college, a two-year institution preparing the student for more advanced education. This new college has also been instrumental in increasing the number of local high school students who enter college from thirty-five percent to fifty-two percent of the graduating class in the last five years. Another eight percent of the graduating students enter the training schools. A total of sixty percent of the graduating high school students continue their education after receiving a high school diploma.(38)

Background Information Related to the Sample of Students

The respondents were a group of 108 twelfth grade students of which thirty were boys and seventy-eight were girls.

An oral inquiry revealed that this group is composed of students

who are parents, married students, engaged students and a group considering themselves going steady with intent to marry and those who are going steady with no intent to marry. (see Table 1)

TABLE 1. -- Marital status of students in sampling

Status	Boys	Girls
Parents	1	1
Married	1	4
Engaged to be married	3	14
Going steady with intent to marry	4	18
Going steady with no intent to marry	11	7
Not going steady	11	35

In the course of the year a total of twenty-one or nineteen percent of the students who entered the school year with the group had dropped out, not including the normal turnover of students for reasons of transfer and illness. Of the twenty-one dropouts, twelve were girls and nine were boys. Six girls and one boy gave the reason of marriage for leaving school.

The sample group was composed primarily of seventeen year old students, the majority of whose educational future will with few exceptions be terminated at the close of the school year. In spite of

an increased interest in college, the high school principal reported that the boys are aware of the possibility of induction and thereby lose their incentive to study.(33) According to Anspach, the girls ". . . entire future identity seems dependent on the projected role of wife-mother".(2) They have learned the makeup, dress and other behaviors believed to be the means of finding a husband and regard themselves prepared to try their wings at marriage. It is very evident this is the case since a high degree of interest is shown by both boys and girls in the family living classes when the subjects of marriage, marriage problems, family and family development arise. By comparison, problems of the teenager in our society or the influence of social change on todays adolescents appears to hold little value for them.

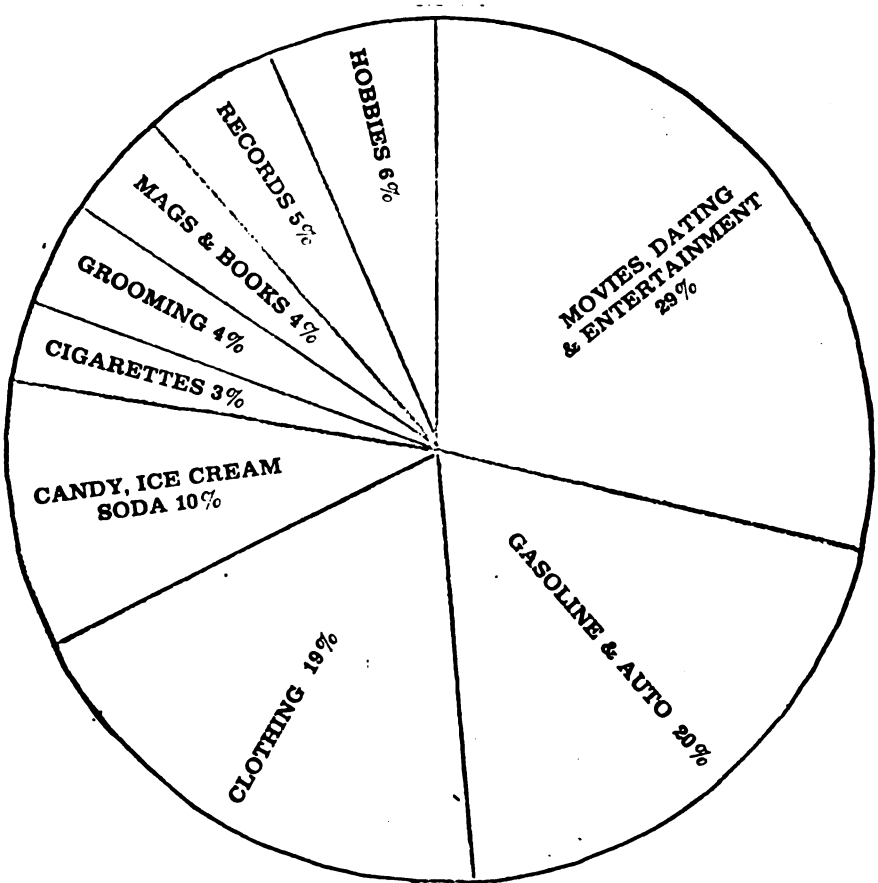
The overall average academic grade point of students in family living classes is 1.89 as shown in Table 2. The I.Q. range was eighty-four to 110.(38)

TABLE 2. -- Academic grades of students in family living classes participating in study (N=108)

Grade	Meaning	Grade Points	Number
A	Superior	4	5
B	Above average	3	20
C	Average	2	46
D	Below average	1	27
E	Failure	0	12
Overall average of grade points is 1.89			Total 110*

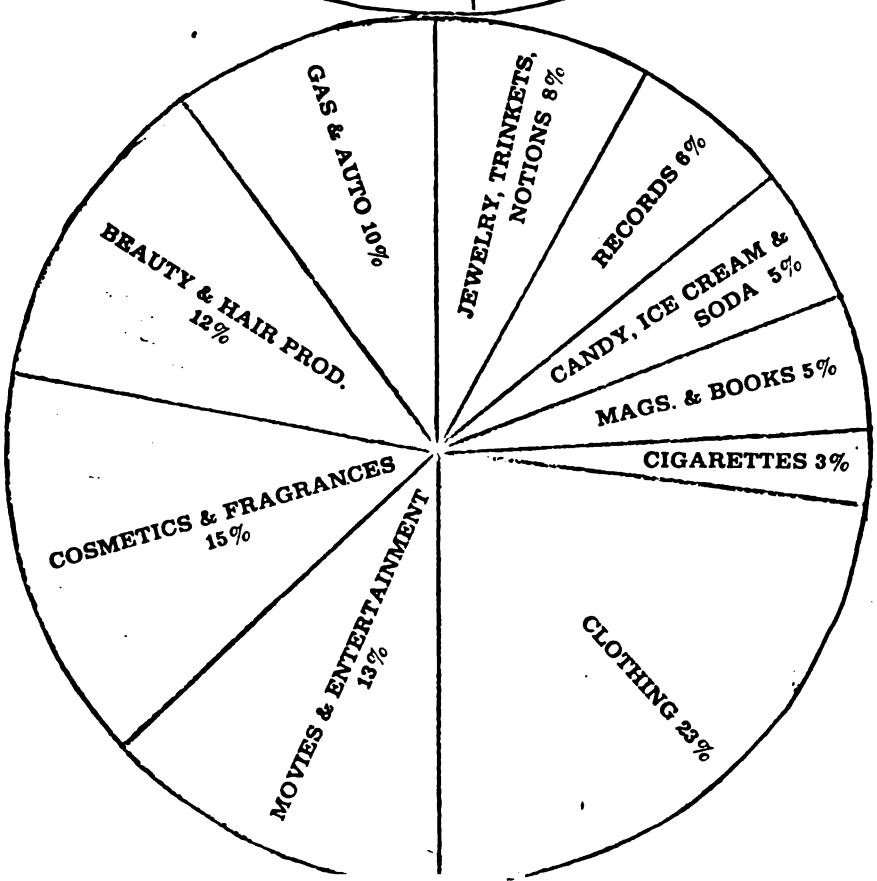
*The total number of grades will not coincide with the total number of students because it was necessary to increase some numbers in an attempt to eliminate fractions. Grades are for three card markings.

FIGURE 3.--Mode of spending by teen-aged boys and girls*



Boys Aged 16-19

Average Weekly Income $17.05



Girls Aged 16-19

Average Weekly Income $17.90

* Rand Youth Poll

Another circumstance which affects this group of students is the easy accessibility of money. Most students who are desirous can, because of a manpower shortage, surplus jobs and a short school day, secure well-paying part-time jobs. It is estimated that eighty percent of these students are earning from seventy-five cents an hour in such jobs as baby sitting for girls, and general household chores for the boys, to $2.50 per hour as factory hands in the nearby industrial plants. Figures 1 and 2, pages 6 and 7, presented figures showing the amounts spent on apparel is largest during the ages of sixteen through twenty-four and that overall clothing expenditures are increasing.

Because wage earning boys and girls spend a considerable amount of money, it is pertinent to analyze further how the teenager spends his earnings. Figure 3 illustrated the results of a national survey conducted by the Rand Youth Poll to evaluate the mode of spending by teenage boys and girls. They found that boys spend nineteen percent of their income on clothing. Clothing ranked third after entertainment and automobile expenditure. The teenage girl who makes up eleven percent of the female population purchases twenty percent of all women's clothing sold. They spend twenty-three percent of their income on clothing, with cosmetics and fragrances ranking second and movies and entertainment third.(22)

The writer chose to undertake this particular investigation because of its possible relevancy of content in clothing care to the concerns of students in the present and future classes in family living.

It was thought that the pupil-teacher rapport which had already been established in these classes also offered the advantage of cooperative effort and thus the acquired information would have more validity

than a random sample of the senior student school population would have provided.

Initial Study Project of Student Interest In the Care of Clothing

One hundred and eight students of family living classes took part in an initial project. The purposes of this portion of the project were to:

a. determine more precisely the students' interests in clothing care

b. learn:
   1. what students know in regard to clothing care
   2. what they believe about clothing care
   3. what they want to know about clothing care
   4. what they need to know about clothing care

c. determine if a need exists for an instructional program in clothing care.

The initial study was the means employed to provide a base upon which to build a meaningful questionnaire and was conducted during regular class periods. In an attempt to give the students ideas for questions, a list of terms relating to clothing, textiles, and care (see Appendix A), which was previously prepared, was written on the chalkboard. Examples are: wash-and-wear, garment labels, colorfast clothes, self-serve dry-cleaning, durability, fabrics and laundry.

This guidance, it was believed, gave the students the opportunity to formulate their own thoughts from which they might be prompted to ask questions about a greater variety of topics. The students were first asked

to make up questions of interest to them, to which they need not know the answers, since the answers were of no consequence at this time.

The specific directive given by the teacher was, "From the following list of terms, make up questions pertaining to the care of clothing. Do not supply answers. Omit questions relating to patterns, styles, tailoring, fit and prices." The above limitation was placed on the students so that matters of personal taste would not enlarge the scope of this study beyond feasible dimensions.

In a second step, students were asked to write a paragraph essay describing a personal negative experience they had had with an article of clothing. With the exception of listing terms on the board, no aid was given the students in any way in the formulation of their questions, or in the development of their personal essays.

The time taken by students to complete the assignment averaged twenty minutes. The papers were then collected for reading. Classification was the sole responsibility of the teacher and all computations were completed without the benefit of mechanical assistance.

Method of Analysis

Questions written in this assignment were organized under three general areas and seven specific headings (see Appendix B, General Areas and Specific Headings from Initial Study Project). The majority of multiple choice questions in the general questionnaire were acquired in this manner, but the writer expanded the number to include other questions considered to be relevant but which had not been mentioned by any student.

Development of the Questionnaire

To gain insight into the students' knowledge of major factors related to clothing care, a questionnaire was devised making use of the information gained in the initial study. This draft of the questionnaire consisted of seventy-two multiple choice questions, classified under seven categories and they progressed in difficulty by the teacher's own estimate.

A multiple choice rather than a true and false technique was used because the chances of guessing correct responses were believed to be decreased. The questionnaire included three general areas and the following categories (see Appendix B):

garment reconditioning
- dry-cleaning
- laundry
- spot and stain removal

fabric characteristics
- textiles (fibers)
- finish
- garment construction

information
- labels

Definition of Terms

The following operational definitions were established as a basis for the classification of questions.

Dry-cleaning or laundry is a process of reconditioning garments with respect to cleanliness and appearance, either at home, by a commercial firm or in a self-serve type of establishment.

Spot and stain removal is a process of extracting foreign material without or before emersing the whole garment.

Textiles refers to the construction and fiber content of a fabric.

Finish refers to a functional treatment provided to add desired qualities in a particular fabric.

Construction in this study describes the techniques employed in the making of a garment which affect the care required.

Labels refers to the written information affixed to a garment providing promotional, technical or procedural information.

The multiple choice questions offered three alternatives. In an attempt to prevent boredom, the writer introduced what appeared to her to be humorous items (questions 25, 35, 65). Some answer choices completed a sentence while others were in statement form. Research was involved in the substantiation of correct answers when some alternatives appeared to be too easy or open to challenge.

Inasmuch as the initial study elicited the largest number of questions in the categories of laundry, textiles and labels it was decided to include more questions in those topics than in the subjects of dry-cleaning, construction, finish and spot and stain removal. An attempt was made to show a relationship between the categories by inserting information from several categories in one question. For example, question 9 asks for the method of cleaning a vinyl-plastic coated fabric. The answer choices given were dry-clean, launder or clean with a damp cloth.

An answer sheet was provided to facilitate the tabulation. It consisted of four columns, numbering downward (see Appendix C). The

answer sheet was the same form used in other test situations so that the students were familiar with its use; therefore, it did not seem strange or confusing.

Administration of Questionnaire

The test questionnaire was administered to 108 high school senior boys and girls during regularly scheduled family living classes in April, 1968. Each class period was of fifty minute duration. Thirty boys and seventy-eight girls participated in the testing program. The instrument was given in familiar surroundings; no change was made in the student schedule for this activity.

The questionnaire which was individually handed to each student contained an instruction face sheet, eight pages of multiple choice questions and an unattached answer sheet (see Appendix C). The face sheet was then read orally to the classes allowing them to follow along with their copies. Added information regarding the purposes of the test was given to the students in an attempt to clarify the objectives and to justify the use of their time. Among the comments made to the students was the fact that a course of this nature is, of necessity, an ever-changing program and new material pertinent to the course must be researched and revised continuously. The students were informed that this material was geared to help the future student meet his responsibility in the area of care of clothing.

The tabulation was done by hand and every question asked was included in the final tabulation. Tables were made according to findings.

These were:

CHAPTER III

EVALUATION OF THE INSTRUMENT

Reliability

The reliability of an instrument means that if one could avail himself of adequate time to readminister a test under similar circumstances with matching test groups, the same results would be found. As pointed out by Van Dalen "a test is reliable if it consistently yields the same results when repeated measurements are taken of the same subjects under the same conditions."(8)

The most adequate comparison that can be obtained under present circumstances is not between various test groups at different times as recommended by Van Dalen, but between various class groups at basically the same time. Since the element of time should weigh more heavily for the determination of reliability, it is recognized that results reached by comparing classes of the same period, and not varying periods, leads to a "probable reliability" of the instrument. In five unrelated classes standardization of test scores is the best accessible indication of reliability. Two of the categories were abstracted as illustrative of the similarity of answers between classes (see Table 3).

Validity

According to Van Dalen, "an appraisal instrument that measures what it claims to measure is valid."(8)

TABLE 3. -- The percent differential of girls' and boys' scores in five classes in the categories of dry-cleaning and laundry

Test Group	class 1	class 2	class 3	class 4	class 5	overall percent differential
Dry-cleaning	0.8	1.8	1.3	1.2	1.9	1.2
Laundry	14.0	13.8	12.6	13.3	14.8	13.7

Data and Findings

Table 4 shows the range of correct responses to the seventy-two item questionnaire was eleven to fifty-eight or a forty-seven point distribution in scores, which is a creditable degree of spread. No student knew all the answers and no student missed all the questions. The highest score was fifty-eight or eighty percent of the total possible.

Table 4 also gives some information relative to the amount of knowledge of the students. Over fifty percent of the students gave forty-three or more correct answers. Eighty-seven percent of the students, or ninety-four, were able to answer at least half of the questions correctly. One-eighth or fourteen of the students scored at least thirty-five points or at least one-half of the possible correct responses.

	Mean Score
Boys (N= 30)	37.57
Girls (N= 78)	44.22
Total (N=108)	41.35

Mean score for both boys and girls was found to be 41.35, which

TABLE 4.--Distribution of correct responses of boys and girls and their percentile range (boys N=30, girls N=78, total N=108)

Student	Correct Answers	Percentile
0	1-10	.00
1	11	.93
1	18	1.85
1	23	2.78
2	29	4.63
1	30	5.56
1	31	6.48
1	33	7.41
2	34	9.26
4	35	12.96
3	36	15.74
7	37	22.22
6	38	27.78
5	39	32.41
2	40	34.26
4	41	37.96
7	42	44.44
5	43	49.09
5	44	53.74
3	45	56.52
7	46	63.00
6	47	68.56
6	48	74.11
3	49	76.85
3	50	79.63
6	51	85.18
4	52	88.89
2	53	90.74
2	54	92.59
3	55	95.37
2	56	97.22
2	57	99.07
1	58	100.00

is six points above the number of one half correct answers. The mean score for boys was 37.57 and 44.22 for girls. The girls' average was six points higher than the average score of the boys.

The total group of students indicated they possessed a substantial amount of information relating to clothing care. However, one does not know if these students responded correctly to the same questions.

The five questions least missed by the boys fell in two categories, textiles and laundry (see Appendix D).

TABLE 5. -- The number of questions in the category and the item numbers on the questionnaire which were least missed by the boys (N = 30)

Category	No. of questions in a category	No. of boys with correct responses	Item no. on questionnaire
Textiles	2	28	31,32
Laundry	2	27	14,20
Textiles	1	27	38

Three of the five least missed questions by the boys were in the category of textiles where twenty-eight of the thirty boys answered these questions correctly. Twenty-seven boys answered two of the questions in the laundry and textile categories correctly.

The five least missed questions for girls were one in each category of dry-cleaning, textiles and labels, and two questions in the category of laundry.

TABLE 6. -- The number of questions in the category and the item numbers on the questionnaire which were least missed by the girls (N = 78)

Category	No. of questions in a category	No. of girls with correct responses	Item no. on questionnaire
Dry-cleaning	1	74	9
Laundry	1	74	14
Textiles	1	73	32
Labels	1	73	59
Laundry	1	72	20

The five least missed questions by the girls were one each in the dry-cleaning and laundry categories where seventy-four girls out of seventy-eight had right answers. One question in the textiles and label categories were answered correctly by seventy-three, and one question in the laundry category was answered correctly by seventy-two girls. The items least missed by both boys and girls were questions in the laundry and textiles categories. A comparison of data reveals that the boys had slightly better scores in the category of textiles than girls. Tables 5 and 6 indicate the students did give correct responses to some of the same questions.

The four most missed questions by the boys were questions in the laundry category where there were only two correct answers. One question in the laundry and one in the textile categories had only four correct answers. Out of the four most missed questions by the girls, two were in the laundry category where there were twelve and thirteen correct responses. The two remaining most missed questions were in the textiles

and finish categories where there were ten and seven correct answers respectively. The most missed items for both boys and girls were two questions in the laundry and one in the textiles categories.

TABLE 7. -- The number of questions in the category and the item numbers on the questionnaire which were most missed by the boys (N = 30)

Category	No. of questions in a category	No. of boys with correct responses	Item no. on questionnaire
Laundry	2	2	17,18
Laundry	1	4	12
Textiles	1	4	41

TABLE 8. -- The number of questions in the category and the item numbers on the questionnaire which were most missed by the girls (N = 78)

Category	No. of questions in a category	No. of girls with correct responses	Item no. on questionnaire
Laundry	1	13	12
Laundry	1	12	17
Textiles	1	10	41
Finish	1	7	51

Table 9 shows a range in percent of 41.3 to 60.0 for boys and 54.5 to 70.0 for girls in the total questionnaire of correct responses. The highest percent for boys was sixty percent and it was found in the category designated as labels. The highest number of correct responses to questions for girls was found in the category of labels where seventy percent of the questions were answered correctly. The lowest number of

TABLE 9. -- Total number and percent of correct responses categorized under general areas and topics (boys N = 30, girls N = 78)

General areas	Topics		Total correct responses	Percent correct responses
Garment reconditioning				
	dry-cleaning 9[a]	boys	144	53.3
		girls	383	54.5
	laundry 12[a]	boys	182	50.6
		girls	603	64.3
	spot and stain removal 7[a]	boys	104	49.5
		girls	375	68.7
Fabric characteristics				
	textiles 20[a]	boys	301	50.2
		girls	877	56.2
	construction 5[a]	boys	62	41.3
		girls	221	56.6
	finish 6[a]	boys	86	47.8
		girls	260	55.6
Information				
	labels 12[a]	boys	216	60.0
		girls	654	70.0

[a]indicates the number of questions in each category

correct answers for the boys was in the area of construction which showed a 41.3 percent of correct responses. The girls' answers indicate a low of 54.5 percent of correct answers in the category of dry-cleaning.

Table 9 reveals lower total scores for the boys than for the girls in all the categories even though they had one more least missed questions as indicated in Table 5.

TABLE 10. -- Percent and mean differences in correct responses of boys and girls within categories (boys N = 30, girls N = 78)

Categories	Mean		Percent of correct responses		Difference
	boys	girls	boys	girls	
Spot and stain removal 7[a]	3.47	4.81	49.5	68.7	19.2 1.34
Construction 5[a]	2.07	2.81	41.3	56.6	15.3 0.74
Laundry 12[a]	6.07	7.73	50.6	64.3	13.7 1.66
Labels 12[a]	7.20	8.38	60.0	70.0	10.0 1.18
Finish 6[a]	2.87	3.33	47.8	55.6	7.8 0.46
Textiles 20[a]	10.03	11.24	50.2	56.2	6.0 1.21
Dry-cleaning 9[a]	4.80	4.90	53.3	54.5	1.2 0.10

[a]indicates the number of questions in each category

In Table 10 the percent takes into consideration the difference in number of items because it is based on 100 percent and is better for a comparison of categories. Mean provides a clearer view of the difference between the boys and the girls within a category.

Table 10 indicates that the boys scored lower in every category of questions on clothing care. Percentage differential of girls over boys shows the greatest difference to be 19.2 percent in the category of spot and stain removal. The second highest is 15.3 percent in the category of construction.

The least difference was 1.2 percent in the category of dry-cleaning, followed by the category of textiles where the difference was 6.0 percent. The mean differential of girls over boys shows the greatest difference to be 1.66 percent in the laundry category, with the second highest as 1.34 percent in the category of spot and stain removal. The least mean difference was 0.10 percent in the category of dry-cleaning, followed by 0.46 percent in the finish category.

Table 11 contains the tabulation of questions with less than one half correct responses. The boys missed three out of five, or sixty percent of the questions in the category of clothing construction. In the same category, one question or twenty percent of the items were missed more than one half of the time by the girls. The range between boys and girls was forty percent. This finding, however, was difficult to interpret since there were only five questions in the category.

These data indicate there are some differences in the kinds of knowledge girls and boys possess.

TABLE 11. -- Number and percent of questions with less than one half correct responses by boys and girls and item numbers in each category (boys N = 30, girls N = 78, total N = 108)

Categories		Questions with less than one half correct responses		Item numbers on questionnaire
		No.	%	
Dry-cleaning 9[a]	boys	4	44.4	1,4,6,7
	girls	3	33.3	6,7,8
Laundry 12[a]	boys	6	40.0	10,11,12,17, 18,24
	girls	3	20.0	11,12,17
Textiles 20[a]	boys	9	50.0	25,26,27,28,29, 30,39,41,42
	girls	8	44.4	25,26,27,28,29, 36,41,42
Construction 5[a]	boys	3	60.0	45,46,47
	girls	1	20.0	47
Finish 6[a]	boys	3	50.0	48,51,52
	girls	2	33.3	51,52
Labels 12[a]	boys	3	25.0	56,58,64
	girls	3	25.0	55,56,58
Spot and stain removal 7[a]	boys	4	57.1	67,68,70,72
	girls	0	0	

[a]indicates the number of questions in each category

The girls' responses showed no questions were answered with less than fifty percent of them correct in the category of spot and stain removal. Boys also had fifty percent or fewer correct answers for one half of the questions in the categories of textiles and finishes. The girls gave more correct responses but the highest percent of incorrect answers for them fell in the category of textiles. These data suggest that girls have a greater amount of knowledge totally in the area of textile care than the boys.

Summary of Questionnaire

The senior boys and girls in the school of a suburban community where the data were gathered had a substantial amount of information on textile care when they came to class. The findings from the total group revealed that out of seventy-two questions, the range of correct answers was eleven to fifty-eight, with a mean score of 43.27 for the total group. Boys and girls have different amounts of information as revealed by the variation in mean scores and percent of difference in correct responses. The mean score was 37.57 for boys and 44.22 for the girls with a combined average of 41.35. A range of 41.3 percent to 60.0 percent for boys and 54.5 percent to 70.0 percent for girls was found in comparing categories. Girls know more totally than boys in all categories according to mean and percent difference. Boys, however, responded with more correct answers according to analysis of least missed questions in two instances, in the category of textiles. The most missed by both boys and girls were in the categories of laundry and textiles.

Within all categories, it was found that boys scored lower than girls. The percentage differential of girls over boys was 19.2 percent in the area of spot and stain removal. The least difference was 1.2 percent in the category of dry-cleaning. The mean difference between girls and boys was 1.66 in laundry and .10 in the category of dry-cleaning.

Questions with less than one half correct responses were tabulated and it was found that in the category of clothing construction boys incorrectly answered 60 percent of the questions as compared to 20 percent by the girls. Data from this instrument indicates boys and girls possess different kinds of information relative to care of clothing.

CHAPTER IV

IMPLICATIONS FOR CLASSROOM TEACHING

Discussion

The responses to the questionnaire offer some implications for classroom teaching. Girls ranked higher than boys in all categories with a definite noticeable difference in those categories taught in the earlier home economic classes; example, garment construction and laundry where the girls scored 15.3 percent and 13.7 percent more correct responses than the boys. Both boys and girls seem to have an equal amount of knowledge in the category of dry-cleaning, as indicated by only 1.2 percent difference of girls over boys in this category (see Table 10). In addition, no noticeable difference was apparent in the knowledge of self-service as opposed to commercial dry-cleaning.

A definite relationship between advertising commercial products with the use of specific terminology (questions 37, 53, 62) was noted. There are indications of a lack of information regarding clothing construction in relation to care by high school boys. A functional understanding of construction techniques such as double knit, together with an understanding of products or procedures affecting this type of weave, would help insure appropriate care. The above statement is more important today than in the past because of the introduction of permanent press finishes which tend to restrict alterations.

While the girls in this study gave a relatively similar number of correct responses to the questions in the dry-cleaning, textiles and finish categories, perhaps informative help in the dry-cleaning process would be most beneficial. A recent nationwide survey by the Institute for Motivational Research found that "sixty-eight percent of those interviewed take from one to five garments to the professional dry-cleaner each month."(16)

The writer believes that an understanding of the rudiments of care processes will help students make appropriate selections in clothing.

The answers to the questions on the data-gathering instrument pertaining to textiles indicates some lack of information relative to natural and man-made fibers. It is the contention of the writer that a study of the properties of fibers is basic to appropriate clothing care and that such content should receive an emphasis in proportion to its importance.

It is further suggested that a masculine approach to the study of textiles be developed. This proposal was prompted by a high level of interest observed in the initial study and the correspondingly higher scores of boys over girls in the items which contained terms associated with automobiles, boats or sports (questions 34, 35, 38). Reference to masculine topics can make clear the properties of various materials without losing sight of the focus on clothing.

In addition, it could probably be well to include a few questions based upon general science knowledge which also has a tendency to appeal to most boys. A finding of twenty-six out of thirty or eighty-seven percent correct responses by boys to question 35 is indicative of this

interest (see Appendix D). The question asks for the meaning of the word "mildew," and to be answered correctly, the student relies on his knowledge from science course that mildew is a fungus growth. Since many of the questions probably favor the girls, some items which favor the boys should be balancing.

The responses to the questions in the category of labels reveals that students understand the general purpose of labels as an aid to the consumer, but they cannot always interpret the meaning of the information. When consumers cannot interpret information on labels, they miss their benefits. With a better understanding of the functional benefit of labels, perhaps the student can make the distinction between an informatively useful label and an eye-appealing but non-informative label. In other words, this knowledge could be useful in helping to distinguish a "true story label" from a "sweet story label."(25)

Students when aware of the value of informative labels could place pressure upon merchandisers (especially those who advertise discount prices on goods) to provide the appropriate descriptive material on their clothing items. Brecker says:

> Everyone loves a bargain, of course--and discount stores are designed to give you the "lift" that comes with finding one. Concentrating on quality doesn't spoil that experience. On the contrary, it can heighten your satisfaction when you get what you really wanted, at a price lower than you expected to pay.(15)

Another suggestion for teaching clothing care was analysis of the last category of questions, spot and stain removal. Although the initial study revealed that most students had had negative experiences with stains on garments, both boys and girls had deficiencies in the area

of treatment of spots and stains. A cross check between the category of spot and stain removal and laundry also showed a lack of understanding of procedures for the prevention of spots and stains.

In the writer's background reading for developing the questionnaire, it was noted that the information relating to spot removal was usually found in the form of household hints. Most students, it seemed, are not aware that this type of information is readily available in a summarized form and as a result do not gain the benefits it has to offer.

An understanding of appropriate concepts provides teenagers with a base from which to evaluate the claims of advertising. Generalities, half truths, personal endorsements and bandwagon slogans can be better seen for what they are, thereby reducing chances of the wasted dollar and disappointments in performance. Regardless of the obvious propaganda in some of the advertising, the teenager who is newly experiencing the spending of money may be lead to believe whatever the advertising agency wants him to believe for the purpose of a sale. One evidence that teenagers are being influenced by advertising claims may be seen in the number of correct answers pertaining to much advertised products (9, 37). In teaching, the logical approach to counteracting any negative values of mass advertising would be to take advantage of familiar products and develop teaching techniques which would make use of them as examples.

From the beginning, the students in the classes participating in this investigation showed considerable awareness of the existence of problems in clothing care and indicated a desire to learn and apply a

solution.

According to some theories of learning, students retain that type of information for which they see a ready use and apparently content in this area offers this possibility. Also, the students' desire for additional knowledge may be heightened if they see they are capable of attaining increased satisfaction from the application of their information. Immediate results in this respect do not seem too remote for the teacher employing clothing care in senior classes for boys and girls.

Function and Interpretation of Checklist

As an outgrowth of the results of the data-gathering instrument, a checklist was designed to gain some insight into the influence of home experiences and instruction in home economics as the students perceived it (see Appendix E). The interest was prompted by the higher scores received by the girls over the boys and by the fact that the girls had had home economics courses previously.

It was decided for purposes of this portion of the study to use only two categories for the formulation of the aforementioned checklist. The two categories, laundry and dry-cleaning, were selected because: first, dry-cleaning showed the least difference in the girls' and boys' scores; secondly, the category of laundry showed an appreciable difference between the boys and the girls and; thirdly, it was felt that both laundry and dry-cleaning practices were routine procedures and therefore could be the most beneficial topics for instruction.

As a result of the checklist, it was noted that sixty-two percent of the students gave credit for learning laundering procedures to their

mothers, while only fifteen percent gave credit to the school curriculum. Interpretation of these figures indicate that maybe the girls, at least, still considered the physical process of placing clothes in a machine containing cleaning agents as the sum and total of the laundry process, even though a substantial amount of emphasis is placed upon this topic in the junior high school program. One cannot, however, say from these data that most girls viewed their school instruction of prime value, or the number giving it credit would have been higher. Perhaps the repetition of the home experience stood out in their minds or perhaps the teacher did not teach them what she intended to teach.

A response to one of the questions shows that fifty-four percent of the students were unable to gain experience in the purchasing of cleaning agents since the products were placed in the home by the mother. The fact could explain a breakdown in the classroom instruction.

The second category, which was dry-cleaning, showed that seventy-three percent of the students were allowed or assigned the responsibilities of attending to the dry-cleaning of their own clothing. These data would suggest that information regarding dry-cleaning stands a chance of gaining the benefits of immediate application.

TABLE 12. -- Student responsibility in the categories of dry-cleaning and laundry at time of study

Student responsibility	Percent
Laundry practices taught to students by	
mother	62
school	15
self	.06
Laundry cleaning agents selected by	
student	28
other than student	54
Dry-cleaning responsibility taken by	
student	73
other than student	27

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary and Conclusions

The study reported here was designed to learn what senior boys and girls in one high school need to know and to gain insight into how to teach the care of clothing. The idea evolved from a demonstration on care of clothing which is normally presented to girls, where the boys as well as the girls exhibited an interest in clothing selection with reference to care.

Other reasons for this study were the authors awareness of the increase of teenage expenditures especially for clothing, and the types of merchandising practices which attempt to capture the youth market. New developments in care products, and technological changes in fabrics also accounted for the perceived need for an effective means of disseminating appropriate information to the teenage consumer.

An initial study was designed to learn what students believed, what they knew, what they wanted to know or what they thought they needed to know about clothing care. On the basis of an expression of the students' interest, from the initial study a questionnaire to measure specific knowledge in relation to clothing care was structured to be used as a guide for future teaching. Based on the findings of the questionnaire, students have some knowledge of textiles and general textile

care practices. Boys have less knowledge than girls but all girls are lacking some knowledge in all areas. The highest scores for both boys and girls appeared in the category designated as labels. The lowest scores were found in the area of construction for boys, and in the area of dry-cleaning for girls.

The outcomes of this study were more than the findings gained from data. The writer became concious of the interest the textile and garment industries have in capturing the teenage dollar. Another outcome was the heightened awareness of the need for home economics teachers to shift from skill emphasis to a consumers' approach. Because textiles care techniques are so readily affected by technological change, students need to be alerted to innovations and impressed to watch for useful information for changes which will be required or helpful in the future.

From the results of the initial study, it was found that there was interest among students to learn and apply clothing care practices. The data obtained from the test questionnaire indicated that students have some knowledge but lack other useful information. Differences were found among boys' and girls' knowledge in various areas pertaining to clothing care with the girls having a larger amount of information than the boys, but differences in kinds of knowledge possessed varied also.

The first draft questionnaire appears to be a workable instrument but needs refining. The questionnaire would be improved if the student were given four alternatives instead of three to decrease guessing in the multiple choice items. One error in the key was discovered on question 41 where mohair and angora were both correct responses. Other questions also need rigorous examination to be sure the choices suggested

are given in parallel form. The writer is not confident that the items included sample all relevant content areas of clothing care. If several experts in textiles and clothing were to define the major concepts and then classify the questions under these headings, it would be possible to ascertain the adequacy of the coverage of the questionnaire.

Recommendations for Further Study

As a result of the findings of this study, the following recommendations for future study are made:

Replication of this study, using consumer products that are current at the time, as a basis for instructive material because consumer products constantly change.

Repeat the study sample with college bound students or adults to learn how they compare in the amount and type of information they have.

Develop a teaching unit incorporating advertised material as basis for teaching textiles and care to boys as well as girls to study the effectiveness of this material.

APPENDIX A

Terms Used in Initial Study Project

From the following list of terms, make up questions pertaining to the care of clothing. Do not supply answers. Omit questions relating to patterns, styles, tailoring, fit, and prices.

Write a paragraph essay about a personal negative experience you have had with an article of clothing.

Wash-and wear

Fabrics: wool, cotton, silk, blends, banlon, nylon, etc.

Pressing

Garment labels

Stain and spot removal

Wearability

Durability

Colorfast clothes

Sources of information about clothing care

Home facilities for laundry

Do-it-yourself facilities (laundromat)

Self-serve drycleaning

Personal clothing care

APPENDIX B

General Areas and Specific Headings from Initial Study Project

Garment reconditioning

- drycleaning
- laundry
- spot and stain removal

Fabric characteristics

- textiles (fibers)
- finish
- garment construction

Information

- labels

APPENDIX C

CARE OF CLOTHING--QUESTIONNAIRE

With the rapidly expanding technology in the manufacture of man-made fibers, and the increased importance of labels, a need has developed for a greater understanding of textiles and their care.

The purposes of this questionnaire are:

(1) To bring into focus the advances in the textile industry which are meaningful to students and will contribute to more intelligent and beneficial clothing selection and care.

(2) To develop a useful teaching unit in the selection and care of clothing for the benefit of high school students.

An answer sheet is provided . Do not write your name, but indicate male or female by checking the appropriate box.

The questions are all multiple choice. Write in the letter of the best answer. You will be given enough time to read the questions carefully.

1. Commercial drycleaning is a method where
   a) no liquid is used.
   b) forced air is used.
   c) a solvent is used.

2. Self-serve drycleaning is a method where
   a) no liquid is used.
   b) forced air is used.
   c) a solvent is used.

3. The self-serve drycleaning process for a load takes
   a) less than an hour.
   b) between one and two hours.
   c) over two hours.

4. Self-serve drycleaning is
   a) better than commercial drycleaning.
   b) comparable to commercial drycleaning.
   c) not as good as commercial drycleaning.

5. Drycleaning should be done
   a) after every wearing of garment.
   b) before putting away for the season.
   c) once a year whether it needs it or not.

6. Drycleaning a garment
   a) reduces its life.
   b) extends its life.
   c) will not affect its life.

7. Which of the following is not true of drycleaning?
   a) Distorts shape of garment
   b) Causes color to fade
   c) Is hard on clothes

8. Drycleaning is the best method for cleaning
   a) men's shirts.
   b) fur blend sweaters.
   c) a lined cloth suit.

9. A vinyl-plastic coated fabric, e.g. seat covers
   a) must be drycleaned.
   b) may be laundered.
   c) can only be cleaned with a damp cloth.

10. Compared to home laundering, self-serve laundromat facilities
    a) don't wash clothes as well.
    b) do wash clothes as well.
    c) are unsanitary.

11. For best laundry results, you should
    a) load to maximum capacity of washer.
    b) load to recommended level.
    c) load to slightly below recommended level.

12. When washing white and colored clothes
    a) they should never be mixed.
    b) light colorfast cottons can be mixed with white.
    c) dark colorfast items cannot be mixed with white.

13. Clothes become yellow or grey because of
    a) too much exposure to sunlight while drying.
    b) improper rinsing.
    c) using soft water.

14. It is not necessary to pre-soak
    a) all clothes.
    b) muddy clothes.
    c) food stained clothes.

15. To prevent food stains from setting, soak clothes in water that is
    a) hot.
    b) cold.
    c) either hot or cold.

16. When laundering, always use hot water for
    a) nylon garments.
    b) cotton garments.
    c) woolen garments.

17. Laundering in hard water is better with
    a) soap and detergent.
    b) soap, detergent, and a water conditioner.
    c) only detergent.

18. Which is not a cause of lint on trousers?
    a) Washing light and dark clothes together
    b) Washing dark clothes after a light colored load
    c) Adding fabric softener before final rinse

19. Detergents, soaps, and water conditioners are
    a) basically the same.
    b) very different.
    c) interchangeable.

20. Bleaches are used for
    a) softening rinse water.
    b) disinfecting.
    c) whitening clothes.

21. Fabric softeners will
    a) cause static in synthetic fabrics.
    b) cause lint in dark colored garments.
    c) keep the original softness in knitted garments.

22. A common cause of shrinkage in washable clothes is
    a) limited washing time.
    b) too high water temperature.
    c) short drying time.

23. Colorfast means
    a) colors run into one another during laundering.
    b) colors will not run.
    c) guaranteed to bleed, such as Madras.

24. Cotton fabrics are weakened by
    a) perspiration.
    b) drycleaning.
    c) laundering.

25. Mohair comes from a
    a) sheep.
    b) goat.
    c) mo.

26. Felt is made from
    a) wool.
    b) cotton.
    c) suede.

27. The weakest natural fiber we have is
    a) wool.
    b) cotton.
    c) silk.

28. Cashmere sweaters are expensive because
a) sweater will wear longer,
b) the supply of cashmere fiber is limited,
c) of a special finish to make it softer.

29. Alpaca for sweaters comes from
a) an animal source.
b) a plant source.
c) a synthetic.

30. Which garment is made of a natural fiber?
a) A silk shirt
b) Nylon stockings
c) Dacron pajamas

31. Which of the following garments is made of a synthetic fiber?
a) Banlon shirt
b) Wool sweater
c) Cotton blouse

32. Which describes a blend?
a) Durable-press slacks
b) Stretch slacks
c) Cotton-Dacron polyester slacks

33. Garments are made of silk because
a) they are pleasing in appearance.
b) they give good wearing service.
c) silk is easily available on the market.

34. Nets on tennis courts are made from cotton combined with nylon because of desirable qualities such as
a) strength and stretchability.
b) strength and inexpensiveness.
c) storability and mothproofability.

35. Sails on boats are no longer made of canvas because they mildew. Mildew is a
a) moth.
b) fungus growth.
c) disease carrying germ.

36. Much of the clothing we buy is partly rayon. This is because rayon
a) wears well.
b) is inexpensive to produce
c) gives garment a good finish.

37. Spandex, as in cuffs of socks, has stretchability. Spandex is
a) an elastic made of rubber.
b) a synthetic stretch fiber.
c) a trade name for socks imported from Spain.

38. Fiberglass used in fabric has the quality of
a) stretchability.
b) strength.
c) being crushproof.

39. A blouse or shirt made of 100 per cent nylon would be
a) cool wearing in the summer.
b) too hot to wear in summer.
c) of no noticeable difference.

40. Army blankets are made from re-processed wool. This means
a) low grade wool.
b) clippings and scraps that are re-woven.
c) re-used worn out blankets.

41. Wigs are made either from natural hair, dynel or
a) camel hair.
b) mohair.
c) angora.

42. When we speak of knits, durable press, vinyl, etc., we are speaking about the
a) textile industry.
b) weaving industry.
c) garment industry.

43. Usually, well-constructed garments can be recognized by
a) narrow hems.
b) generous seam allowances.
c) the number of hangtags.

44. A bonded fabric coat refers to
a) the finish on the coat.
b) a backing adhesive.
c) a type of insurance.

45. A sweater that is double knit means
a) a bulky sweater.
b) a lined sweater.
c) two sets of knitting yarn used.

46. When inspecting a garment for workmanship, puckers at seams
a) will press out.
b) will not press out.
c) will come out in dryecleaning.

47. When purchasing durable-press clothes, alteration possibilities must be considered because
a) it is impossible to remove original crease.
b) it is difficult to remove original crease.
c) it is preferable to remove original crease.

48. Wash'n Wear
a) is a finish provided for easier care.
b) requires no ironing.
c) makes garment last longer.

49. The purpose of Wash'n Wear is
a) to prevent shrinkage.
b) same as perma press.
c) to make ironing easier.

50. An important reason for permanent press is
a) attractiveness.
b) easier care.
c) longer life.

51. A durable press shirt means that it
a) is wrinkle free.
b) needs no ironing.
c) both a and b.

52. A water repellant raincoat means coat
a) will keep you perfectly dry in a downpour.
b) is waterproofed by a special method.
c) will shed some water, but also absorbs some.

53. Scotchguard is a
a) brand of tape.
b) plaid fabric.
c) type of fabric finish.

54. The labels on garments
a) aid consumers.
b) increase sales.
c) make garments look more impressive.

55. The major purpose of a label is to give information about
a) style.
b) performance.
c) origin.

56. Labels are put into garments because
a) they are required by law.
b) the manufacturer volunteers the information.
c) both a and b.

57. A hangtag is
a) a label attached to a garment by a string.
b) loose threads on a garment.
c) a synthetic label.

58. Hangtags may come in different colors for
a) coding purposes.
b) attractiveness and appeal.
c) no reason.

59. A good informative label will give you information such as
a) length of wear.
b) feel of fabric.
c) fiber content.

60. Sanforized means
a) pre shrunk.
b) shrinkable.
c) water resistant.

61. Ⓡ on a label means
a) passed by inspection.
b) a registered trademark.
c) for retail use only.

62. The name "Arrow" on a shirt label signifies a
a) manufacturer.
b) guarantee.
c) style.

63. To a commercial drycleaner, a garment label is
a) very important.
b) usually ignored.
c) a means of identifying the customer.

64. The "Do Not Remove" label restricts the
a) consumer.
b) retailer.
c) manufacturer.

65. If a tag or label is removed from a garment, the consumer should file it for
a) income tax purposes.
b) future return of garment.
c) care reference.

66. To prevent stains, spillages should be
a) allowed to dry before trying to remove.
b) ignored.
c) removed immediately.

67. The color and general appearance of a stain can be a clue to
a) amount of cleaning agent to use.
b) cleaning technique to use.
c) durability of fabric.

68. Rust stains on garments can be caused by
a) iron content in water.
b) long periods of time between washings.
c) lengthy storage of garment.

69. When treating a fruit stain, the best approach is
a) vigorous rubbing.
b) work lightly and rapidly.
c) work slowly.

70. To prevent a ring from forming when using a spot remover
a) use spotting agent generously.
b) use spotting agent sparingly.
c) dry fabric slowly.

71. The most frequently used spot removers for grease stains are
a) lubricant's.
b) solvent's.
c) detergent's.

72. Care should be taken with spotting agents because they
a) reduce life of garment.
b) are usually flammable.
c) non toxic.

ANSWER SHEET Male ☐ Female ☐

1	19	37	55
2	20	38	56
3	21	39	57
4	22	40	58
5	23	41	59
6	24	42	60
7	25	43	61
8	26	44	62
9	27	45	63
10	28	46	64
11	29	47	65
12	30	48	66
13	31	49	67
14	32	50	68
15	33	51	69
16	34	52	70
17	35	53	71
18	36	54	72

ANSWER SHEET KEY

Male ☐ Female ☐

1 c	19 b	37 b	55 b
2 c	20 c	38 b	56 c
3 a	21 c	39 b	57 a
4 b	22 b	40 b	58 a
5 b	23 b	41 b	59 c
6 b	24 a	42 a	60 a
7 a	25 b	43 b	61 b
8 c	26 a	44 b	62 a
9 c	27 a	45 c	63 a
10 b	28 b	46 b	64 b
11 c	29 a	47 a	65 c
12 c	30 a	48 a	66 c
13 b	31 a	49 c	67 b
14 a	32 c	50 b	68 a
15 b	33 a	51 a	69 b
16 b	34 a	52 c	70 b
17 c	35 b	53 c	71 b
18 c	36 b	54 a	72 b

APPENDIX D

Number of Boys Compared to Number of Girls Having Correct Answers for each Question of Data-Gathering Instrument

Question Number	Boys	Girls
1	13	40
2	16	42
3	19	45
4	13	45
5	16	49
6	10	34
7	14	25
8	18	29
9	25	74*
10	15	46
11	10	26
12	4**	13**
13	25	65
14	27*	74*
15	18	58
16	21	66
17	2**	12**
18	2**	61
19	17	42
20	27*	72*
21	19	68
22	24	71
23	15	46
24	9	39
25	8	32
26	6	38
27	6	19
28	5	36
29	13	27
30	17	54
31	28*	70
32	28*	73*
33	21	43
34	22	54
35	26	70
36	15	29

* 5 least missed questions by boys and girls
** 4 most missed questions by boys and girls

Continued

Question Number	Boys	Girls
37	19	59
38	27*	49
39	8	49
40	19	54
41	4**	10**
42	8	31
43	15	49
44	15	44
45	11	41
46	12	59
47	9	28
48	12	42
49	15	54
50	23	64
51	7	7**
52	6	28
53	23	65
54	25	68
55	17	36
56	13	35
57	22	65
58	8	34
59	21	73*
60	20	58
61	16	52
62	20	65
63	21	63
64	14	49
65	19	56
66	21	70
67	14	42
68	11	57
69	15	58
70	13	50
71	18	50
72	12	48

* 5 least missed questions by boys and girls
** 4 most missed questions by boys and girls

APPENDIX E

Checklist--Care of Clothing

The study of students' knowledge in the care of clothing is progressing successfully. However, additional information is needed to make it more meaningful.

Would you answer the following questions by checking the appropriate boxes.

Drycleaning

Male ☐ Female ☐

1. Do you take the responsibility of drycleaning your clothes? yes ☐ no ☐

If YES	If NO
2. (a) do you take them yourself to be dry-cleaned? ☐	2.(b) do you never have clothes drycleaned? ☐
3. (a) do you have them picked up from home? ☐	3.(b) does your mother take the responsibility of your drycleaning? ☐
4. (a) do you do your own at a self serve? ☐	4.(b) other _____

5. (a) other _____

6. do you pay for your own drycleaning? yes ☐ no ☐

7. who determines whether your garments need cleaning?
   you ☐
   mother ☐
   other _____

Laundry

8. Do you take the responsibility of laundering your clothes?

yes ☐ no ☐

If YES

9. (a) Do you do all? ☐
Do you do part? ☐

10. (a) Were you taught by
mother? ☐
self? ☐
school? ☐
other _____

11. (a) Do you launder
at home? ☐
laundromat? ☐
other _____

12. (a) Do you select cleaning agents (soaps, detergents, bleaches, etc.?)

yes ☐
no ☐
some _____

If NO

9. (b) Is it done by
mother at home? ☐
mother at laundromat? ☐
sent out? ☐
other _____

10. (b) Do you pay for
mother's services? ☐
sent out laundry? ☐
cleaning agents (soaps, detergents, bleaches, etc.?) ☐
other _____

BIBLIOGRAPHY

Books

1. American Home Economics Association. Textile Handbook. Washington: American Home Economics Association, 1963.

2. Anspach, Karlyne. The Why of Fashion. Ames, Iowa: Iowa State University Press, 1967.

3. Denny, Grace G. Fabrics. New York: J.B. Lippincott Company, 1962.

4. Hollen, Norma, and Saddler, Jane. Textiles. 2nd ed. revised. New York: The Macmillan Co., 1964.

5. Joseph, Marjory L. Introductory Textile Science. New York: Holt, Rinehart and Winston, Inc., 1966.

6. Labarthe, Jules. Textiles: Origins to Usage. New York: Macmillan Co., 1964.

7. Mellan, I., and Mellan, E. Removing Spots and Stains. New York: Chemical Publishing Co., 1959.

8. Van Dalen, D.B., and Meyer, W.J. Understanding Educational Research. New York: McGraw-Hill Co., 1966.

9. Wingate, Isabel B. Textile Fabrics and Their Selection. New Jersey: Prentice-Hall Inc., 1964.

Articles and Periodicals

10. "Care of Wool Knits," What's New In Home Economics, April, 1968.

11. "Coin-Operated Complete Fabric Care Centers," Borg-Warner Corporation, 1964.

12. "Coin Operated Drycleaning," Borg-Warner Corporation, 1963.

13. "Do-It-Yourself Drycleaning," Westinghouse Corporation, 1961.

14. Hearne, Virginia, and Broome, Esther. "Permanent Press Performance as Compared with Wash-and-Wear Finished Fabrics," Journal of Home Economics, 59, December, 1967.

15. "How Big Are Bargains in Discount Stores?" Redbook, April, 1965.

16. "IMR Says Clothes Cleaner," Clothing Care News, National Institute of Drycleaning Quarterly, Maryland, 1964.

17. Making Washday Easier, Consumer Power, Home Service Department, E. Detroit, Michigan, December, 1966.

18. "More Than Clothing," Tips and Topics, Texas Technological College, Lubbock, Texas, February, 1968.

19. "1003 Household Hints and Work Savers," Bankers Community Service, New York, 1951.

20. "Spot Removers," Consumer Reports, January, 1968.

21. Stain Removal Chart, Lever Brothers Homemaking Center, New York, 1964.

22. "Youth Spends It's Money," Penney's Forum, Fall/Winter, 1967.

Public Documents

23. "Growth in Apparel Spending," Finance Facts. Washington: National Consumer Finance Association, March, 1968.

24. How To Prevent Mildew. Home and Garden Bulletin No. 68, Washington, D.C. United States Department of Agriculture, June, 1964.

25. Kahabka, Bernetta. Clothing Your Family. Michigan State University Bulletin 284, July, 1960.

26. Kahabka, Bernetta. Textile Care...Give Labels A Try Before You Buy. Michigan State University Bulletin 403, January, 1965.

27. Kahabka, Bernetta. Textile Care...Some Problems and Solutions. Michigan State University Bulletin 401, January, 1965.

28. Removing Stains From Fabrics, Home Methods. U.S. Department of Agriculture, Bulletin 62, Washington, D.C., June, 1964.

Unpublished Material

29. Dillon, Mary Louise. "The Modal Pattern of Dress and Its Relationship to Peer Acceptance Among Eighth Grade Boys." Unpublished M.A. Thesis, Michigan State University, 1963.

30. Hartman, Catherine Ann. "Compilation of the Consumer's Interpretation of Care Information As Found on Four Labeled Pieces of Stretch Fabrics." Unpublished M.A. Problem, Michigan State University, 1964.

31. Karl, Arla W. "Consumer Satisfactions and Dissatisfactions With Men's Durable Press Slacks and Shirts." Unpublished M.A. Thesis, Michigan State University, 1966.

32. Steinhoff, Joanne Joubert. "A Study of Consumer Awareness and Utilization of Garment Labels." Unpublished M.A. Problem, Michigan State University, 1963.

Other Sources

33. Drager, Richard, Principal, Roseville High School, ex-mayor City of Roseville. Personal interview regarding community interests in development of school facilities. April, 1968.

34. Ellison, Sue, Consumer Power representative.who gave demonstration of clothing care in classroom. Roseville, Michigan, June, 1968.

35. Nardelli, Benny, Housing Director. Telephone conversation to obtain a list of recreational facilities and organizations in the community. Roseville, Michigan, April, 1968.

36. Munn, Robert J., Clerk. Personal interview to learn average factory worker's income based on 1960 census. Roseville, Michigan, April, 1968.

37. Roseville High School Student Personnel Records to determine socio-economic level of citizens. Roseville, Michigan, May, 1968.

38. Stobinski, C., Counselor. Correspondence to obtain statistics on post-high school education of students. Roseville High School, Roseville, Michigan, April, 1968.

39. Szot, C., Counselor. Personal interview to obtain information regarding army laundry facilities. Roseville High School, Roseville, Michigan, April, 1968.

40. White, Bob, Sales Personnel, Sears, Roebuck and Co., Personal interview to learn what local retail department store offers in consumer education in relation to product utilization. Roseville, Michigan, May, 1968.