

THE UNDERSTANDING OF TEXTILE TERMINOLOGY
BY ADVANCED HOMEMAKING STUDENTS
IN WESTERN OREGON HIGH SCHOOLS

by

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A THESIS

submitted to

OREGON STATE COLLEGE

in partial fulfillment of
the requirements for the
degree of

MASTER OF SCIENCE

June 1959

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ACKNOWLEDGMENTS

The writer is indebted to the following people for their help and guidance in the planning and preparation of this thesis:

To Miss Marie Diedesch, Associate Professor of Clothing, Textiles and Related Arts, who helped outline the project, carefully reviewed the thesis and offered many helpful suggestions.

To Dr. Florence Petzel, Head of the Clothing, Textiles and Related Arts Department, who reviewed the thesis and offered constructive criticism.

To Dr. May DuBois, Head of the Home Economics Education Department, who kindly offered suggestions for the outline of the study and the construction of the examination used in the study.

To Dr. Lyle Calvin, Oregon State Agricultural Experiment Station statistician, appreciation is extended for his help with the formulation of the examination used in the study and the tabulation and analysis of the data.

To the cooperating teachers who so willingly gave of their time and administered the tests to their students and so promptly returned the answer sheets.

To her husband, Russel Mitchell, for his help, encouragement, and patience throughout the preparation of this thesis.

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THE UNDERSTANDING OF TEXTILE TERMINOLOGY
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INTRODUCTION

Every profession has its problems, and home economics education is no exception. It is not, however, the more tangible problems such as restricted budgets, overcrowded classrooms, lack of equipment or limited physical facilities that may cause the most anxiety. The writer's greatest concern when teaching textiles to high school students was whether the students were really obtaining the information they needed as future buyers of the textiles known as yard goods. Discussions with several other high school home economics teachers revealed that this problem was not unique.

One frequent complaint often noted in these discussions was that the teachers found that they could not keep abreast of current trends in textiles. There were several reasons for falling behind, but the ones most frequently mentioned were: (1) the rapidity with which the textile industry is progressing and changing, (2) the fact that the information supplied by manufacturers is often too vague to be of value, and (3) the lack of up-to-date textbooks on the high school level. Some

problems such as the one relating to current texts cannot be solved. A dynamic entity such as textiles, cannot be totally described by anything as rigid as a textbook. The "double talk" passed out by some manufacturers is not likely to be alleviated. As a result, the writer became interested in finding out to what degree high school girls, who have taken the optimum amount of home economics offered in the Homemaking Education in Oregon Secondary Schools manual (8), know and understand the textiles they purchase. Is there really cause for concern, or are the students adapting to the situation and seeking information from other sources to augment their learning in high school classes?

Need for Study

Numerous new fabrics are appearing on the market each season. Many of the old textile "standbys" have been modified by chemical finishes or physical changes. The latter have been modernized by the use of novelty yarns or weaves and by blending two or more fibers into one fabric. The result is that each fabric has its own peculiar advantages or limitations due either to its inherent qualities or applied finishes (9, p. 79). The consumer faced with the almost infinite fiber combinations and finishes available in fabrics is presented

with a real problem in selecting the best fabric for a particular use. Many questions pass through the consumer's mind as she shops in the fabric department-- questions that can or cannot be answered by labels and/or sales persons. If the desired information about a fabric cannot be supplied by either of these two sources, and if an intelligent purchase is to be made, the consumer will need to learn the characteristics of a specific fabric from another source.

Many textile consumers are teen-agers. A recent report in Newsweek indicates that there are 17.2 million citizens between the ages of twelve and twenty years with nine billion dollars a year to spend. The clothing industry reaps a greater volume of the teen-age dollar than any other industry. More than one-half of their dollars is spent for clothing (3, p. 94). The United States Department of Commerce reports that in 1955 the people of the United States spent 25.6 billion dollars on clothing, jewelry and accessories (14, p. 301). Because teen-agers of today are tomorrow's adult consumers, it is important to find out if they are adequately prepared to be intelligent textile consumers. The present-day teen-ager probably acquires a large percentage of her textile knowledge from formal education in the high school. For many students, high school is their last exposure to

formal education. It is possible that actual experiences with buying and handling fabrics may increase a student's understanding of textiles. This study was designed to find out to what degree high school girls understand textile terminology, as it is related to yard goods, after having taken at least three full years of home economics courses in which there were units on textiles and clothing construction. Another factor considered in the study was the actual experiences girls have had in sewing in the classroom as well as at home and/or purchasing fabrics.

Review of Literature

New developments in fibers and fabrics have brought about a change in the philosophy of teaching textiles and clothing in the secondary schools. The emphasis is changing from the processes of clothing construction to a broader emphasis on buying and using clothing and fabrics (4, p. 1). It has been estimated that more than 90 per cent of the fabrics, this includes yardage and household linens, used in the United States is purchased by women and girls. If this is true, every girl should learn as much as possible about fabrics and ready-made garments so that she can buy intelligently (11, p. 69). "A girl who has learned to purchase, construct, and care for her own clothing and to select and appreciate quality fabrics

should then be able to transfer her knowledge to problems of household textiles and family clothing" (12, p. 29).

In an article in the United Business Education Association Forum, Chester H. Wisnefske, of Gresham High School, Shawano, Wisconsin, says, "...among the acceptable aims of education are:

1. To prepare the pupils to take care of themselves and to deal intelligently with the problems of life.
2. To teach pupils to get the greatest amount of good from their expenditures of time, money, and energy."

Wisnefske continues, "...a lack of consumer education in our highly specialized age would be detrimental to the success of our aims for our boys and girls, our future consumer citizens" (15, p. 30).

As early as 1936, Alma Dale Newell, instructor of home economics at Hutchinson, Kansas, and Lucile Osborn Rust, professor of home economics education at Kansas State College, in a Kansas State College bulletin on consumer buying units for high school home economics students listed the following guiding principles:

- "1. Every girl and woman has responsibilities in purchasing and evaluating clothing and textiles.
2. Home economics courses should train girls for meeting these responsibilities.
3. Training is necessary to develop the ability to intelligently select and evaluate clothing and textiles" (7, p. 7).

An exhaustive study by Sister Mary Bertina Maxwell, a graduate student at Texas State College for Women, of sixty Providence High School freshmen enrolled in home economics classes showed that the students not only improved in their knowledge of fabrics after a unit on consumer buying of textiles was taught (as revealed by scores on the Every Pupil Scholarship Test for Clothing), but the students chose somewhat better fabrics for use in their classroom clothing project after the unit was completed (5, p. 167).

A similar study, by Sarah E. Brier, a graduate student at the University of Tennessee, of 135 college freshmen home economics majors revealed that there was definite benefit derived from having had the clothing selection course before buying fabrics for the clothing construction course offered at the University of Tennessee. ~~Miss~~ Brier states, "The freshman girls seemed to have made a very good showing with respect to general buying knowledge and habits and actual selection of fabrics for their construction course considering that they were just beginning their four-year course in home economics" (1, p. 55).

Under the direction of Dorothy Scott, head of home economics education at The Ohio State University, Helen M. Reynolds, an instructor of textiles and clothing at

Heidelberg College, made a study of homemakers, students, and business women concerning the information they desired about clothing and textiles. The results of the survey indicated that the three most common problems women have with clothing and textiles are: (1) selection of quality fabrics, (2) caring for fabrics, and (3) construction techniques (12, p. 29).

There seems to be a lack of information available relative to the understanding of textiles and textile terminology by advanced high school home economics students. The writer made an extensive search of theses, bulletins, articles, and books and compiled a bibliography of over one hundred sources. These references were reviewed, and only the most pertinent information has been included.

Statement of Problem

The writer has been unable to find any study that presents any data relevant to the understanding of textiles and textile terminology by advanced high school home economics students. Previous studies related to the present one have been done in specific schools with selected groups of students who were given a specially planned unit on consumer buying of textiles. The purpose of these previous studies was to determine

whether or not the students were able to put to use the information learned in the units on consumer buying of textiles.

This study was planned to determine to what extent advanced homemaking students of western Oregon high schools are prepared to purchase and use fabrics wisely. The results of the study will be made available to high school home economics teachers for their use as a basis for evaluating or establishing units on buying and using fabrics.

In order to determine to what extent advanced high school students of western Oregon know and understand about yardage, the writer developed an examination. The steps involved in writing the examination are described in the following chapter. Through the use of this specially designed test for advanced high school home economics students, an effort was made to ascertain the following:

- I. Is there any relationship between the amount of clothing construction a student does and her total score on the test?
- II. Is there any relationship between who purchases the fabric a student uses in her garments and her total score on the test?
- III. Is there any relationship between the type of store (department, variety, single line, mail order catalogue) in which the fabric used in the student's garment was purchased and her total score on the test?

IV. Does the student understand textile terminology?

- A. How much of the information found on labels does the student understand?
- B. Is the student able to select appropriate fabrics to be used in simple garments?
- C. Is the student able to identify commonly used fabrics?
- D. Does the student understand the characteristics of certain fabrics that require special consideration when placing a pattern on the fabric?
- E. Does the student have an understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules?

METHOD OF PROCEDURE

In order to determine the amount of textile knowledge students have and use when purchasing and using fabrics in the construction of clothing, an examination was prepared by the writer. This section explains the methods used in the construction of the examination, the selection of the sample, and the evaluation of the test.

Preliminaries to the Construction of the Examination

In order to write an examination which would test students on their ability to select wisely from current yard goods, it was necessary to determine what was available on the retail market. Using Grace Denny's book, Fabrics (2), as a reference, a check list of fabrics, fibers, and finishes was compiled. This check list was made up of terms that the writer felt were most likely to appear on the present retail market. When actually surveying the stores, some of the terms were deleted and other terms added as it became apparent that they should be included.

Then a list of towns in which to survey the retail market was formulated. Because of the impracticability of surveying stores in all of Oregon, the survey was limited to western Oregon, the area west of the summit of

the Cascade Mountains. An effort was made to have a range in population as well as a good geographic distribution of the towns included in the survey. A representative group of valley and coastal towns was selected. The nine towns chosen and their populations are: Waldport, 689; Florence, 1,655; Newport, 4,422; Cottage Grove, 3,536; Springfield, 12,436; Corvallis, 16,207; Eugene, 44,000; Salem, 45,500; and Portland, 402,000 (Figure 1) (10, p. 364-365). More towns could have been included in this survey of the retail stores, but it was discovered as the survey progressed from the small coastal towns to the larger valley towns that the terms found in the stores in larger towns were quite similar to those in the stores of the smaller towns. The larger shopping areas had a much larger selection of fabric colors, designs, and amount of yardage available. Fabric shops, department stores, and variety stores were surveyed; a total of 29 stores in nine shopping areas. All of the stores that sell yardage in Waldport, Florence, Newport, Cottage Grove, Springfield, and Corvallis were surveyed. In Eugene, Salem, and Portland, only the fabric shops, department stores and variety stores in the central business districts were surveyed (Table I). Because many people use a mail order catalogue in purchasing goods, both the Montgomery Ward Catalogue (6) and the Sears, Roebuck and Company

Table I

Types and Numbers of Stores Surveyed in Each Town

<u>Town</u>	<u>Fabric Store</u>	<u>Department Store</u>	<u>Variety Store</u>	<u>Total</u>
1. Waldport		1		1
2. Florence		1	1	2
3. Newport		1	1	2
4. Cottage Grove		2		2
5. Springfield		1		1
6. Corvallis	1	2		3
7. Eugene	1	6		7
8. Salem	1	5		6
9. Portland	—	<u>4</u>	<u>1</u>	<u>5</u>
Total	3	23	3	29

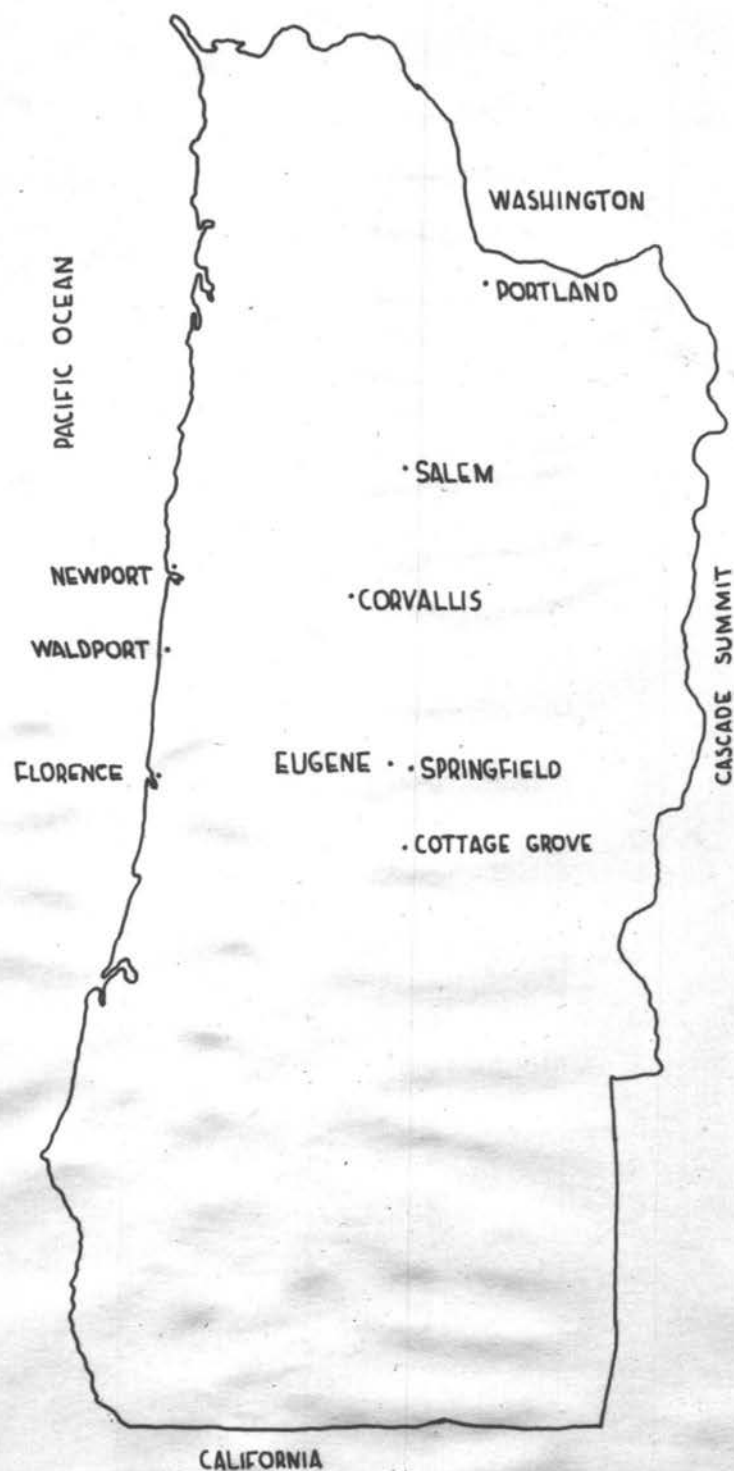


FIGURE 1. WESTERN OREGON TOWNS IN WHICH THE RETAIL STORES WERE SURVEYED

Catalogue (13) were also included in the survey of the retail market.

When checking the terms available on the present retail market, a term was checked as defined if the definition of the trade-name appeared on the label. For example, "Disciplined", the Bates trade-name for their wrinkle resistant cotton fabric, was almost always defined on the label. Trade-names that were consistently defined on labels were not used in the examination because it seemed unnecessary to expect students to know a term that is defined most of the time. If the definition of a term was not on the label, a notation to that effect was marked on the check list. All of the individual check lists were combined into a master list after the store survey was completed (Table II). Only the fabric, fibers, and finishes that were found most frequently, in stores in both large and small towns, were used as the bases for the examination questions.

Construction of the Examination

Using the store survey as a guide, an objective type test was constructed using true-false, multiple-choice, and matching questions. In writing the examination, an attempt was made to avoid trick questions and questions that would test for details. Instructions for

Table II
Master List of the Survey
of the Retail Market

<u>Term</u>	<u>Number of Times Found Undefined</u>	<u>Number of Times Found Defined</u>
FABRIC		
*Batiste	10	
Bengaline	1	
*Broadcloth	28	
Challis	1	
*Chambray	16	
Chiffon	4	
*Corduroy	22	
Crepe	3	
*Denim	19	
*Dimity	12	
Dobby Texture	5	
*Dotted Swiss	16	
Flannel, Cotton	17	
Flannel, Wool	8	
Georgette	3	
*Gingham	25	
Homespun	4	
*Indian Head	13	
Jersey, Wool	7	
Jersey, other	9	
Lawn	2	
Nainsook	5	
*Organdy	24	
Organza	1	
*Percalé	19	
*Pique'	19	
*Plisse'	13	
Pongee	3	
Powderpuff Muslin	1	
Ramona Cloth	5	
*Sailcloth	18	
Satin	6	
*Seersucker	11	
*Shantung	5	
Sheen Gabardine	2	
Surah	1	

Table II - Continued

<u>Term</u>	<u>Number of Times Found Undefined</u>	<u>Number of Times Found Defined</u>
*Taffeta	18	
*Terrycloth	12	
Velvet	3	
*Velveteen	11	
Viyella	1	
Voile	2	
FIBERS, NATURAL		
*Combed Cotton	21	
*Doupionne	5	
Egyptian Cotton	6	
*Linen	8	
Pima Cotton	6	
Peru Cotton	3	
*Pure Dye Silk	5	
*Pure Silk	5	
*Raw Silk	2	
*Silk	8	
*Virgin Wool	8	
*100% Wool	15	
*Wool	14	
FIBERS, SYNTHETIC		
*Acetate	21	
*Acrilan	2	
*Arnel	9	
Celaperm	3	
Celanese	12	
Chromespun	16	
*Cupioni Rayon	14	
*Dacron	18	
Lurex	5	
*Mylar	9	
*Nylon	21	
Orlon	9	
*Rayon	25	
*Spun Rayon	10	
*Viscose	12	

Table II - Continued

<u>Term</u>	<u>Number of Times Found Undefined</u>	<u>Number of Times Found Defined</u>
FINISHES, COLOR		
*Colorfast	6	
Everfast	5	
*Fast Colors	15	
*Guaranteed Colorfast	8	
Retento		1
*Sunfast	5	
Unifast		5
*Vat Colors	5	
*Vat-dyed	8	
Vatfast Colors	7	
Washfast Color	12	
*Washable Colors	11	
*Yarn Dyed	5	
FINISHES, REPELLENCY		
Mildew Resistant		8
Perspiration Resistant		12
Sanitized	4	4
Soil Resistant		16
Spot Resistant		13
Stain Resistant		9
Water Repellent	5	
FINISHES, SHRINKAGE		
*Preshrunk	3	10
*Residual Shrinkage		27
Sag-no-mor	5	1
*Sanforized	23	
Sanforlan	10	3
Shrinkage Controlled	1	
*Shrinketized	2	
*Sponged	8	
FINISHES, SURFACE CHANGES		
Bellmanize		2
Crisp Finish	12	

Table II - Continued

<u>Term</u>	<u>Number of Times Found Undefined</u>	<u>Number of Times Found Defined</u>
*Decated	6	
*Durable Finish	4	
*Embossed	11	
Everglaze	20	2
*Mercerized	23	
*Permanent Finish	19	
Permanent Krinkle	2	
*Permanent Pleats	3	
*Polished Cotton	12	
Saylerized		1
FINISHES, WASHING		
Do Not Use Chlorine Bleach		8
*Dri-Don	18	
Drip N' Dry	15	
*Fully Washable	7	
*Guaranteed Fast to Washing	12	
*Guaranteed Washfast	12	
Hand Washable		9
*Machine Washable	16	
*Needs Little or No Ironing	18	
*Needs No Ironing	4	
Wash and Wear	9	
*Washable	16	1
FINISHES, WRINKLE RESISTANT		
Anticrease	8	
*Crease Resistant	21	
Disciplined	4	14
Perma-Pressed	12	
Permell-Plus	1	
Regulated	4	1
Self-Controlled		3
Tebelized		10
Unidure		5
*Wrinkle-Resistant	22	
*Wrinkl-shed	21	1
Zeset		2

Table II - Continued

<u>Term</u>	<u>Number of Times Found Undefined</u>	<u>Number of Times Found Defined</u>
MISCELLANEOUS		
Anti-slip finish	1	
Boucle	5	
Fresherized	6	
Heberlein		1
Leno	7	
Needleized	6	
Plied Yarn	5	

*Asterisk indicates that the term was used on the examination

answering the questions were made as simple as possible so that the students would not be tested on their ability to read and interpret instructions. The preliminary test was evaluated by three staff members of the home economics education department, one staff member of the clothing and textiles department, three graduate students in clothing and textiles, one graduate student in home economics education, and one statistician. Suggested revisions of the test were then made. The trial run tests were then given to 69 high school home economics students at Hillsboro Union High School, Hillsboro, Oregon. Some minor revisions were made, and the examination was then prepared in its final form and mailed to the

cooperating schools (Appendix A). To each test was attached an answer sheet to be used by the students. The answer sheet was designed for ease in marking and recording the answers as well as to cut the expense of having the entire examination returned by mail.

Selection of the Sample

Because of the impracticability of surveying stores in all of Oregon, the store survey was confined to western Oregon, and thereby the sample group was limited to high school home economics students in western Oregon. The sample was further reduced by testing only students who had completed at least three years of high school homemaking. This was done for three reasons: (1) to allow the test group to have had the optimum training in home economics as outlined in the Homemaking Education in Oregon Secondary Schools (8) manual; (2) to keep the test group restricted to a workable size; (3) to keep the test group more uniform in educational background.

A list of Oregon high schools and the present home economics teachers was supplied by Miss Bertha Kohlhausen, Supervisor of Home Economics for the State of Oregon (Appendix B). One hundred and twenty-six high schools in counties west of the Cascade summit were contacted. Portland high schools were eliminated from

the survey because of the difficulties involved in obtaining permission to give the test in this system. Private and parochial schools were not included in this study because they are not under the supervision of Miss Kohl-hagen's office.

A preliminary hand-typed letter was sent to each of the 126 high school homemaking teachers explaining the purpose of the study and asking her cooperation. A self-addressed postcard was enclosed for ease in answering (Appendix C).

Out of the 126 teachers contacted, 70 teachers replied that they would participate in the survey; 19 teachers replied that they could not participate because only two years of homemaking was offered in their schools; two teachers replied that they would not participate, but gave no reason; one teacher replied that she would participate, but her answer was received too late to include her students in this study; 34 teachers did not reply.

A total of 1,479 examinations was sent to the 70 cooperating high schools. Enclosed in the packet of tests were: (1) instructions to the teacher for administering the test, (2) the key to the test, (3) a self-addressed envelope for the return of the answer sheets, and (4) a letter explaining how the test was

formulated (Appendix D).

Within three weeks after the tests were mailed, 47 teachers had returned the answer sheets. Twenty-three follow-up letters were sent to the teachers who had not returned the answer sheets (Appendix E). Of the 23 remaining teachers, 16 returned the answer sheets; two teachers wrote that they would not be able to give the examinations due to their busy schedule; five teachers did not reply at all (Figure 2). Due to absences, various school activities, and the failure of seven schools to return their tests, the final count of answer sheets returned was 978.

The good percentage of returns, 90 per cent of the cooperating schools and 50 per cent of the total schools originally contacted, may have been influenced by the fact that all of the correspondence with the teachers was individually hand-typed.

Tabulation of the Answers

There are 74 questions in the examination. One point was allowed for each question, therefore a perfect score for the test is 74. As the answer sheets were returned, each one was given a number. A separate list was kept of the schools that returned their answer sheets, as well as the number of answer sheets that they

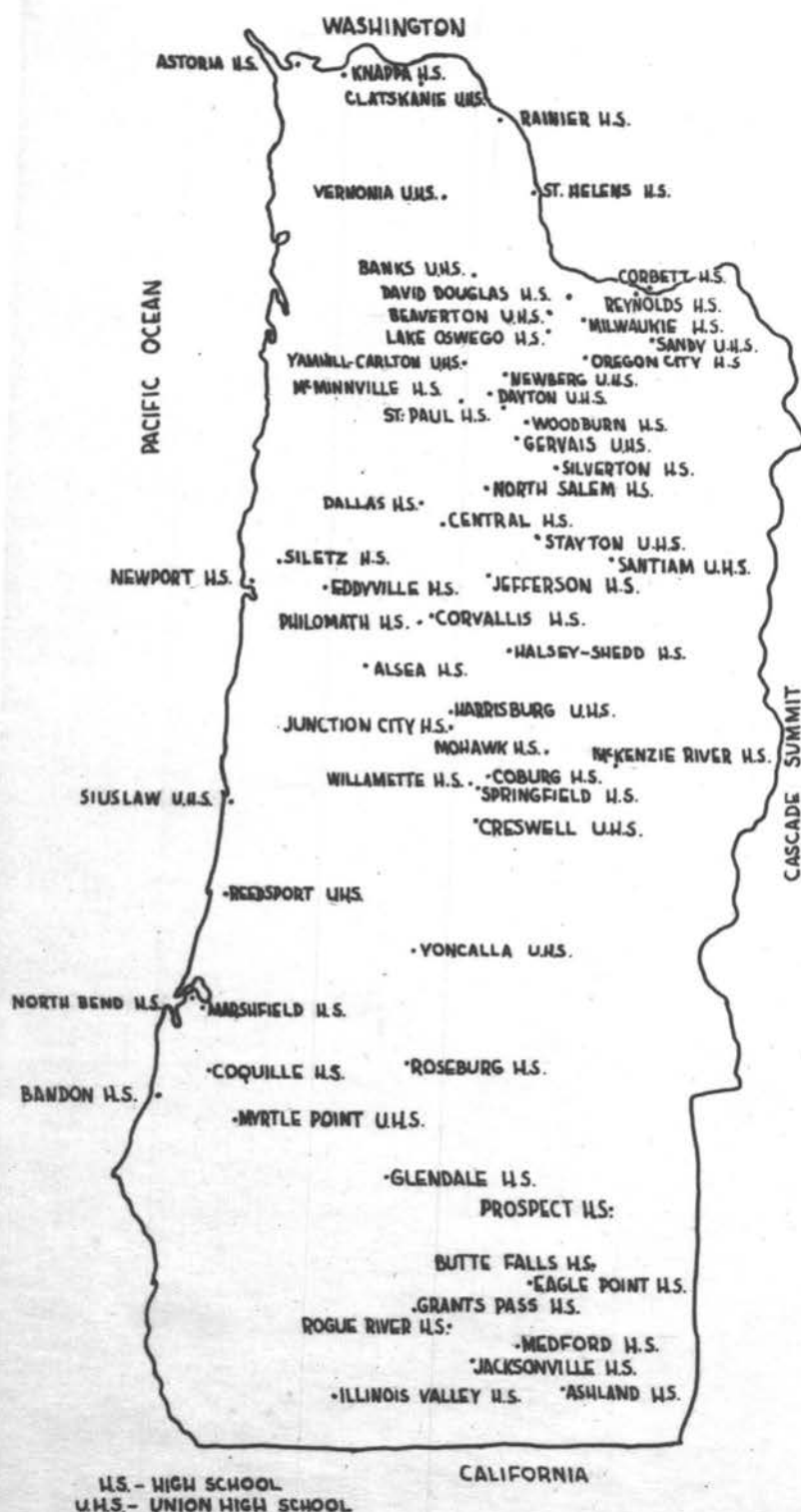


FIGURE 2. WESTERN OREGON HIGH SCHOOLS
THAT PARTICIPATED IN THE STUDY

returned. The reason for numbering the answer sheets was to facilitate the job of retracing possible errors made in recording the answers. The answer sheets were corrected and one point subtracted for each error. Each answer as well as the total score was written on a large tabulation sheet. After all of the tests had been corrected and recorded, the total scores and answers for each question were tallied.

Analysis of Examinations

Analysis of variance tests were used to compare the relationship between the student's total test score and the amount of personal sewing done, who purchased the fabrics, and the type of store in which the fabrics are purchased. Tests of significance on the individual test questions were made by means of the chi-squared test. In all cases the test of significance is based upon the five per cent level. The number of students answering each question is reported in percentages; all percentages are calculated on the basis of a total of 978 students. Assuming that the questions were answered completely at random, the expected score for the examination was calculated. The expected score is 27.42.

Although the primary concern of the examination was to determine how much high school home economics

students understand about the fabrics that are available on the present retail market, the test was designed to classify their knowledge into several categories. The data were tabulated and analyzed with respect to these categories. The categories and their relevant data are discussed in the following chapter.

ANALYSIS OF DATA

The data are presented in the same order as the categories outlined in the Introduction. Below they are restated, and the questions in the examination are grouped together so that all of them that relate to one specific area may be examined and analyzed at one time.

- I. Is there any relationship between the amount of clothing construction a student does and her total score on the test?

Question I

- II. Is there any relationship between who purchases the fabric a student uses in her garments and her total score on the test?

Question II

- III. Is there any relationship between the type of store (department, variety, single line, mail order catalogue) in which the fabric used in the student's garment was purchased and her total score on the test?

Question III

- IV. Does the student understand textile terminology?

- A. How much of the information found on labels does the student understand?

Question IV. 1,2,3.

Question VIII. 1,2,3,4,5,6,7,8,9,10.

Question IX. 1,2,3,4,5.

Question X.

- B. Is the student able to select appropriate fabrics to be used in simple garments?

Question VII

- C. Is the student able to identify commonly used fabrics?

Question IV. 4,5,6,7,8,9,10,11,12.

Question IX. 6,7,8,9,10,11,12,13.

- D. Does the student understand the characteristics of certain fabrics that require special consideration when laying out patterns?
Question V.
Question VI.
- E. Does the student have an understanding of the Wool Products Labeling Act and the Pure Dye Silk Trade Practices?
Question IV. 13,14,15,16.
Question IX. 14,15,16.

Distribution of Test Scores

Counting one point for each question there was a possible score of 74 on the examination. The highest score made by a student was 64 and the lowest score made by a student was 6 (Figure 3). The mean score for the examination was 39.70, the median score was 39.705, and the mode was 41. One standard deviation was plus or minus 7.6 points, 68.2 per cent of the test group falling between the scores of 32.2 and 47.3. The expected score, based on the completely random answering of the test questions, was 27.42. Only 5.2 per cent of the students made scores lower than the expected score.

Relationship Between the Amount of Clothing Construction A Student Does and Her Total Score on the Examination

Question I was designed to determine whether the student's knowledge and understanding of textile terminology increases as the number of garments constructed

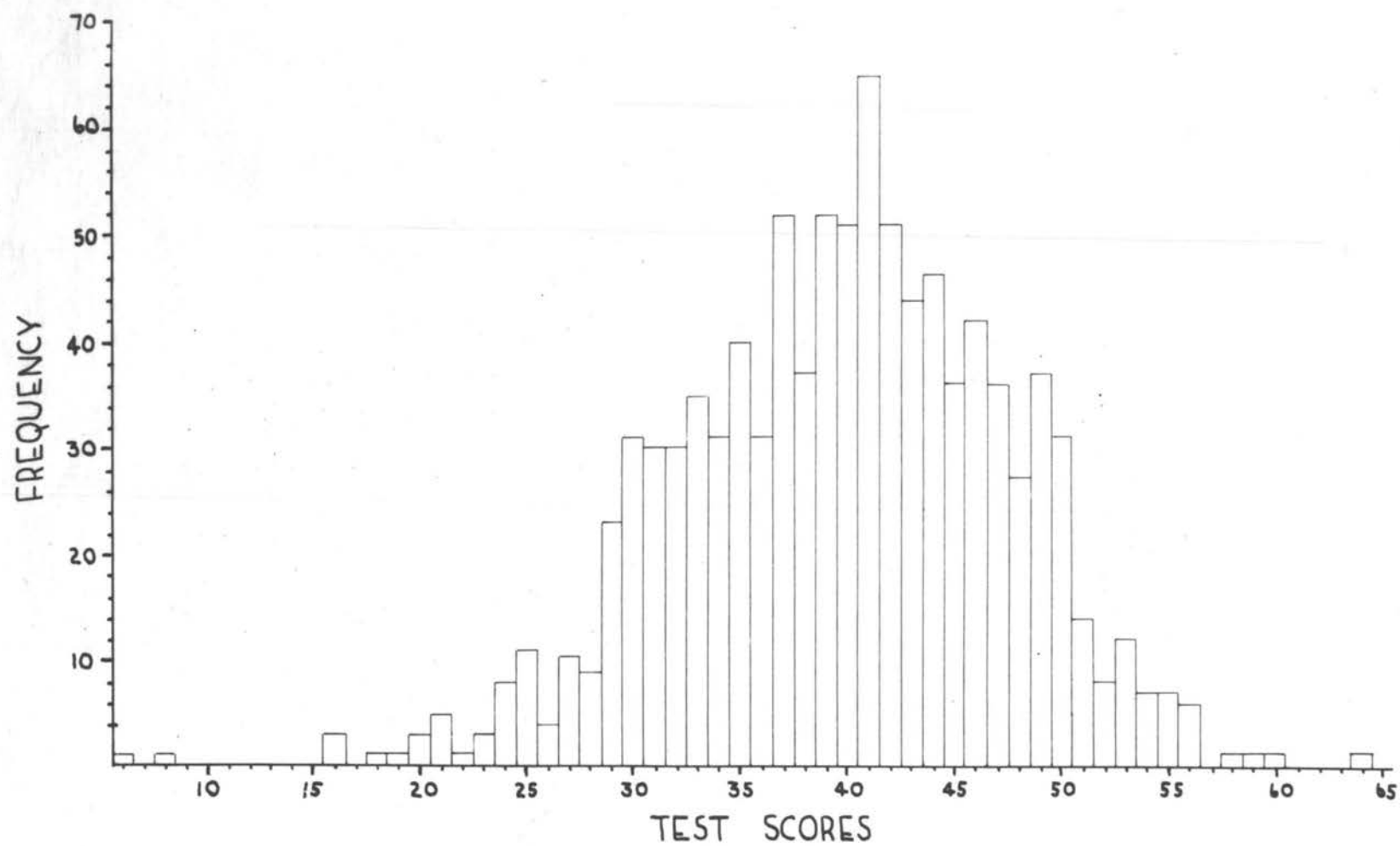


FIGURE 3. DISTRIBUTION OF TEST SCORES

increases (Table III).

The mean score of all the students who constructed almost all of their outer garments (choice "a") did not differ significantly from the mean score of those students who did most of their own clothing construction (choice "b"). A possible explanation for the similarity of mean scores was that the students were unable to discern between choice "a" and choice "b". Because the scores of students marking these two choices were essentially the same, they were combined to form a single unit used in testing the differences between the mean scores achieved by students selecting choices "c" and "d".

Girls who sewed almost all or most of their outer garments (choice "a" and "b") made significantly better scores than the students who sewed just some of their outer garments (choice "c"). When this correlation was carried one step further, it was found that the girls who constructed some outer garments made significantly higher scores than those who constructed only the garments that were required in class (choice "d").

These results show that the more experience girls have in constructing clothing, the more they apparently know and understand about textiles and textile terminology.

Table III

Percentage of Students' Responses to the Question
Concerning the Number of Garments They Construct

Question I	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	Total	Mean Score
	Almost all of my outer garments	Most of my outer garments	Some of my outer garments	Only what I make in school		
How much of your own sewing do you do?	7.6	21.4	52.5	18.5	100.0	-
Mean Score	43.08	42.46	39.27	36.35	-	39.70*

* Mean score for total test group.

Relationship Between Who Purchases the Fabric a Student Uses and Her Total Score on the Examination

Question II was designed to determine whether the experiences a student has in purchasing her own fabrics will influence her knowledge and understanding of textiles and textile terminology (Table IV).

Students who purchased their own fabrics without help from anyone (choice "a") made significantly higher scores than those who purchased their fabrics with help from their mothers (choice "b"). Even though the difference between the mean score of choice "a" and choice "b" was only one point, it was statistically significant. This shows that the actual experiences girls have in purchasing yardage will increase their knowledge and understanding of fabrics. The number of girls answering choices "c" and "d" represented such a small group that no reliable information could be obtained by further analysis.

Relationship Between Where the Fabric Is Purchased and the Student's Total Score on the Examination

In the survey of the retail market that was used as the basis for the examination it was noted that the information supplied in the mail order catalogues was usually more complete and accurate than information

Table IV

Percentage of Students' Responses to the Question Concerning
Who Purchases the Fabrics Used in the Garments They Construct

	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>		
Question II	Only You	You and your mother	Only your mother	Some other person	Total	Mean Score
Who usually decides what fabric will be purchased for your sewing project?	42.7	55.6	0.4	1.3	100.0	-
Mean Score	40.35	39.35	31.75	36.23	-	39.70*

* Mean score for total test group.

supplied in either department stores or fabric shops. Therefore question III was designed to determine whether the student's total score was affected by where she and/or her mother purchased the fabric that she used in the construction of her garments (Table V).

The mean score of students who purchased their fabric from a mail order catalogue (choice "c") was not significantly higher than that of students who purchased their fabrics from a department store (choice "b") or a single line shop (choice "a"). The mean score of students choosing "b" (a department store) was not significantly higher than that of students who purchased their fabrics in a single line shop (choice "a"). This result shows that the student's understanding of fabrics is not related to the type of store in which she and/or her mother purchased the fabrics used in her garments.

Does the Student Understand Information Found on Labels?

Because most girls either purchase or help purchase the fabrics used in their garments, it was important to determine the extent of their comprehension of the information found on labels. Certain questions in the examination were planned with this objective in mind. They are:

Table V

Percentage of Students' Responses to the Question
Concerning the Type of Store in which They Purchased
the Fabrics Used in the Garments They Construct

Question III	<u>a</u>	<u>b</u>	<u>c</u>	Total	Mean Score
	Store that sells only yardage and notions	Depart- ment Store	Mail order catalogue		
Where do you usually purchase the fabric you use when you sew?	13.8	83.1	1.3	98.2*	-
Mean Score	39.36	39.81	42.38	-	39.78**

* Because 0.1 per cent did not answer this question, and 1.7 per cent of the students do not purchase or help purchase their fabric, they are not included in this table or analysis.

** Mean score of 98.0 per cent of total test group.

Question IV, items 1,2, and 3 (Table VI).
Question VIII, items 1,2,3,4,5,6,7,8,9,
and 10 (Table VII).
Question IX, items 1,2,3,4, and 5 (Table
VIII).
Question X (Tables IX and X).

Discussion of Table VI

"Viscose" (choice "d"), the correct answer in item one, question IV, received only 17.0 per cent of the responses (Table VI). The number of students selecting "acetate" (choice "a") was significantly higher than those choosing the other three answers. One reason for the large number of students answering item one incorrectly may be that until 1952 acetate was labeled as rayon. Since the enactment of the new rayon regulations, synthetic fibers made by the viscose and cuprammonium methods have been labeled as rayon, and the synthetic fibers made by the acetate method have been labeled as acetate.

In item two, the number of students selecting "sponging" (choice "c") was significantly larger than the number of students selecting any other single answer. However, the total number of students choosing the wrong answers here was significantly larger than the number of students choosing the correct answer. It is interesting to note that "retting" (choice "d") was the

Table VI

Percentage of Students' Responses to Three Multiple Choice
Questions on Interpreting Label Information

Question IV	RESPONSE				No Answer
	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	
1. "100% Rayon" on a label means that the type of rayon in the fabric is (a) acetate, (b) acrilan, (c) arnel, (d) viscose.	55.9	14.6	7.7	<u>17.0*</u>	4.8
2. Shrinking of new wool fabrics before sewing (can be done at home) is called (a) decatizing, (b) napping, (c) sponging, (d) retting.	18.9	11.8	<u>38.0</u>	27.9	3.4
3. A process that preshrinks fabric so that the shrinkage during use is less than 1% is called (a) Superset, (b) Pre-shrunk, (c) Shrinketized, (d) Sanforized.	.7	23.3	3.6	<u>72.3</u>	.1

* Underlining indicates the correct answer.

most popular incorrect answer.

The number of students choosing "Sanforized" (choice "d") as the correct answer in item three was significantly larger than the number choosing any other one answer. The total of students selecting the correct answer was also significantly larger than the total of students selecting the incorrect answers. Even though the majority of the students answered the item correctly, approximately one-fourth of the students indicated that "Preshrunk" (choice "b") was the correct answer.

Discussion of Table VII

In items 1,2,4,5, and 8 of question VIII, the number of students who answered correctly was significantly greater than the number of those who answered incorrectly (Table VII). In items 3,6, and 7, a significantly larger number of students selected the incorrect answers.

It is interesting to note that more than one-half of the students indicated in item three that "preshrunk" had some meaning, which it has not, whereas in a similar item (Table VI, question IV, item 3) only 23.3 per cent or about one-fourth of the students responded that "preshrunk" meant that residual shrinkage was one per cent or less. This suggests that many students

Table VII

Percentage of Students' Responses to Ten True-False Questions on Interpreting Information on Two Written Fabric Labels Prepared by the Writer

Question VIII	: True	: False	: No Answer
1. Combed cotton fibers are longer and stronger than carded cotton fibers.	<u>68.4</u> *	29.7	1.9
2. Vat-dyed colors are more permanent than any other dyes for cotton.	<u>58.6</u>	40.0	1.4
3. Preshrunk means that the fabric will not shrink when it is washed.	54.5	<u>45.0</u>	.5
4. Mercerizing is a process that adds luster and strength to cotton.	<u>75.0</u>	23.4	1.6
5. "Residual Shrinkage 1%" is a phrase that has little or no meaning for the consumer.	16.4	<u>82.0</u>	1.6
6. "Guaranteed Colorfast" means that the colors are fast to washing and sunlight.	76.6	<u>22.1</u>	1.3
7. Cay's cottons will be easier to take care of because you do not have to iron them.	56.0	<u>42.5</u>	1.5
8. All cotton fabrics will wrinkle when worn even if they have been treated not to wrinkle.	<u>58.8</u>	40.2	1.0
9. For the best buy Joan should purchase "Cay's Cottons."	47.0	<u>51.4</u>	1.6
10. For the best buy Joan should purchase "Sun-Time Fabrics."	<u>51.9</u>	46.7	1.4

* Underlining indicates the correct answer.

do not know the meaning of the term "preshrunk".

The percentage of students who answered item six incorrectly was significantly larger than the number of those who answered it correctly. The fact that 76.6 per cent of the students responded that "Guaranteed Colorfast" meant that the colors will not fade when washed or exposed to sunlight indicates that perhaps they do not understand either the meaning of the term "Guaranteed" or the meaning of "Colorfast" or the combined terms as used.

In item seven, again the percentage of incorrect responses was significantly larger than the percentage of correct responses. This result was probably due to the misconceptions associated with the wrinkle-resistant and drip-dry cottons on the market. These misconceptions may be the result of the way in which these cottons are advertised.

The last two items, nine and ten, are related, as the students were asked to select the "best buy". The percentage of students marking the two questions correctly was not significantly higher than the percentage marking the items incorrectly. This result shows that despite all of the evidence presented on the two illustrated labels, and the fact that the girls were able to answer five of the true-false questions about

the labels correctly, they were unable to evaluate the information and use it to make the correct choice for items nine and ten.

Discussion of Table VIII

A significant number of students selected the correct answer over the incorrect answer in items 1,2, and 4 of question IX (Table VIII). In items three and five the incorrect answer was chosen by a significantly higher percentage than those the correct answer.

In item three, slightly over 82 per cent of the students responded that the term "permanent pleats" on a label on a cotton garment means that the pleats will remain for the life of the garment. This suggests that either they do not understand the characteristics of cotton, or they do not understand the label term "permanent". In item two, the girls correctly responded to the label term "durable"; perhaps they are of the opinion that "durable" and "permanent" are synonymous.

It is not surprising that in item four 39.6 per cent of the girls did not know that "Dri-don" was the trade mark for the Dan River drip-dry finish for cotton. This finish has been on the local market for less than one year.

Table VIII

Percentage of Students' Responses to Five
True-False Questions on Interpreting Label
Information Concerning Cotton Fabrics

Question IX	: True :	: False :	: No : Answer
1. Printed fabrics are more colorfast than yarn-dyed fabrics.	32.4	<u>66.2*</u>	1.4
2. The term "durable glaze" found on a polished cotton label means that the glaze will remain even though the garment is washed.	<u>88.0</u>	11.0	1.0
3. The term "permanent pleats" on a cotton fabric means that the pleats will remain for the life of the garment.	82.4	<u>16.8</u>	.8
4. Dri-don is a Dan River trade name that means little or no ironing is needed.	<u>58.0</u>	39.6	2.4
5. Wrinkl-shed is a trade name that means that the fabric will not wrinkle.	63.6	<u>34.7</u>	1.7

* Underlining indicates the correct answer.

Judging from the large percentage of students marking item five incorrectly, it appears that many of the girls were not aware of how a wrinkle-resistant cotton reacts in use, or what the term "wrinkle-resistant" means on a label. In contrast, on Table VII, question VIII, item eight, 58.8 per cent of the students correctly responded that cotton fabrics will wrinkle even if they have been treated to be wrinkle resistant.

Discussion of Table IX

Group 1 of question X deals primarily with color-fast terms that appear on labels. In one-half of the items (3,4, and 5) a significant number of students responded to the correct answer (Table IX). In items 1,2, and 6, a significantly larger number of students answered the questions incorrectly.

In items one and two, over 70 per cent of the students selected the wrong answer. Students appeared to be confused as to the true meaning of the terms "Colorfast" and "Guaranteed fastcolor" as they are found on labels. Perhaps in item two, they were misled by the term "Guaranteed".

In item three, 67.1 per cent of the girls answered the question correctly. From the evidence shown in items one and two, perhaps they did not

Table IX

Percentage of Students' Responses to Six
Matching Questions on Interpreting Label
Information Concerning Colorfastness of
Fabrics

Question X Group 1	<u>a</u> Term means fabric will be reasonably fast color	<u>b</u> Term has little meaning	No Answer
1. Colorfast	79.8	<u>17.8</u> *	2.4
2. Guaranteed Fastcolor	72.5	<u>24.3</u>	3.2
3. Colorfast to washing	<u>67.1</u>	30.1	2.8
4. Vat colors	22.7	<u>73.6</u>	3.7
5. Vat-dyed	<u>55.8</u>	40.4	3.8
6. Sunfast	55.7	<u>41.3</u>	3.0

* Underlining indicates the correct answer.

really understand the phrase "Colorfast to washing", but because the word "Colorfast" appeared, the students concluded that the phrase had meaning.

It would seem that the students understand the terms "Vat colors" and "Vat-dyed" because they correctly marked them in items four and five. Also in a previous item (Table VII, question VIII, item two) they indicated the correct answer for the term "Vat-dyed".

Discussion of Table X

In items 2,5,6, and 7 of Group 2, question X, a significantly larger number of students marked the items correctly than the number marking them incorrectly (Table X). In items 1,3, and 4 the number of students marking the incorrect choice was significantly higher than the number marking the correct answer.

Only 13.3 per cent of the girls indicated the correct answer in item one. A significantly higher percentage, 75.2, indicated that the term "Guaranteed wash-fast" had meaning. Again in this item, as in item two (Table IX, question X, group 1), the word "Guaranteed" may be the term that the girls misinterpreted.

A small percentage of students, 23.5, responded correctly to the term "Fully washable" in item three. A significantly larger number, 62.0 per cent, responded

Table X

Percentage of Students' Responses to Seven Matching Questions on Interpreting Label Information Concerning Washability of Fabrics

Question X Group 2	<u>a</u>	<u>b</u>	<u>c</u>	No Answer
	Term means that the fabric can be washed without noticeable fading or shrinking	Term means the remaining shrinkage is 2% or less	Term has little meaning	
1. Guaranteed washfast	75.2	8.8	<u>13.3*</u>	2.7
2. Machine washable	<u>63.6</u>	19.0	<u>14.4</u>	3.0
3. Fully washable	62.0	11.4	<u>23.5</u>	3.1
4. Preshrunk	26.3	61.4	<u>9.1</u>	3.2
5. Sanforized	35.8	<u>53.2</u>	7.4	3.6
6. Shrinketized	11.7	25.8	<u>59.1</u>	3.4
7. Residual Shrinkage 2%	4.9	<u>76.2</u>	15.5	3.4

* Underline indicates the correct answer.

incorrectly, or that the term had meaning. In comparing the responses of item one and three to item two it appears that the students believed that, if a phrase contains a word relating to washability, it meant that the fabric will not shrink or fade when washed. It is possible that the students marked item two correct because the term "washable" appeared in the phrase rather than because they actually understood the entire phrase.

Judging by item four, "Freshrunk" seems to be a term that the students persist in marking as if it has meaning. In Table VII, question VIII, item three, 54.5 per cent of the students responded that the term "Pre-shrunk" indicates that the fabric will not shrink when it is washed. Again in this item, 61.4 per cent of the girls responded that the term "Preshrunk" means that the residual shrinkage is less than two per cent.

More than one-half of the students indicated the correct answer for the term "Sanforized" in item five. However, 35.8 per cent responded incorrectly that the term "Sanforized" means not only that the fabric will not noticeably shrink, but that it would not noticeably fade when washed.

Because 59.1 per cent of the students correctly responded that "Shrinketized" had little meaning, it seems that they have an understanding of this term.

"Residual shrinkage 2%", item seven, was a phrase that a significant number of students marked correctly. Also, on Table VII, question VIII, item five, 82.0 per cent of the students indicated that the term "Residual shrinkage" had meaning for the consumer. Either the students actually know and understand this phrase, or they marked it correctly because the phrase sounds technical and they therefore concluded that it must mean something.

Do students understand the information found on labels? Assuming that the questions in this area, Tables VI through X, were answered completely at random, the expected score would be 13.58. The students' actual score was 15.2 or 1.62 points higher than the expected score. This suggests that the students do not understand the information that is found on labels. They were able to answer only 1.62 more questions correctly than they would have answered correctly if they had randomly selected the answers.

Is the Student Able to Select Appropriate Fabrics for Simple Garments?

An important facet of purchasing fabrics is the ability to select fabrics that will be suitable for the garment that is to be constructed. Some of the fabrics most frequently found in the retail market were used as

the bases for the matching question in which the students were to select the most suitable fabric for each of the garments listed. The question in the examination that applies directly to this category is:

Question VII, items 1,2,3,4, and 5 (Table XI).

Discussion of Table XI

In all instances except one, most students were able to make the correct choice of fabric (Table XI). The number of students making the correct choices for items 1,2,3, and 4 was significantly higher than the number of students selecting the incorrect answer. In item five, which pertains to a christening dress for an infant, "Chiffon" was chosen as the most suitable fabric by 40.4 per cent of the girls. "Batiste," the correct answer, was selected by only 22.6 per cent of the students. It is quite probable that the students are not familiar with batiste.

Assuming that the question was answered completely at random, the expected score for this question would be 0.71. The students earned a score of 3.0, which is 2.29 points higher than the expected score. This score indicates that the students have a relatively good understanding of the fabrics that would be suitable for use in some garments.

Table XI

Percentage of Students' Responses to Five Matching Questions
on the Selection of Fabrics for Simple Cotton Garments

	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	
Question VII	Batiste	Broad-cloth	Chiffon	Organdy	Plisse	Polished cotton	Sail-cloth	No Answer
1. A pair of pedal pushers for summer.	1.0	10.0	0.2	0.4	0.3	3.2	<u>84.1*</u>	0.8
2. A durable blouse to wear with gym shorts.	4.5	<u>70.7</u>	.8	1.6	1.4	10.9	8.8	1.3
3. A pair of light weight pajamas that will require little ironing	13.5	4.0	8.1	4.6	<u>58.9</u>	7.6	.8	2.5
4. A fancy waist apron to wear on special occasions.	4.7	1.2	16.9	<u>65.3</u>	4.2	6.0	.4	1.3
5. A christening dress for an infant girl	<u>22.6</u>	.7	40.4	20.2	7.3	6.3	.3	1.9

* Underlining indicates the correct answer.

Is the Student Able to Identify Commonly Used Fabrics?

When the survey of the retail market was taken some fabrics were found more frequently than others. Certain questions in the examination were designed to determine the understanding students have of these fabrics. The pertinent questions are:

Question IV, items 4,5,6,7,8,9,10,11, and 12
(Table XII).

Question IX, items 6,7,8,9,10,11,12, and 13
(Table XIII).

Discussion of Table XII

In items 5,7,10, and 12 on question IV, a significantly higher number of students selected the correct answer than the incorrect answer. The number of correct answers was also significantly greater than the total of incorrect answers (Table XII). In items 6,8,9, and 11 the total number of students giving the wrong answer was significantly larger than the number giving the correct answer. In item four, even though the percentage of correct answers was significantly greater than any other one answer, there was no significant difference between the total of correct answers and the total number of wrong answers.

In item six, the percentage of girls choosing the incorrect answer (sailcloth) was significantly higher than

Table XII

Percentage of Students' Responses to Nine Multiple-Choice Questions on the Characteristics of Some Common Fabrics

Question IV	Response				No Answer
	a	b	c	d	
4. A cotton fabric that is woven in either a waffle design or lengthwise rib is (a) denim, (b) dimity, (c) pique, (d) seersucker.	13.4	5.3	<u>50.8*</u>	29.3	1.2
5. A fabric that needs little or no ironing is (a) dimity, (b) dotted swiss, (c) Indian head, (d) seersucker.	9.1	19.2	6.4	<u>64.1</u>	1.2
6. A cotton fabric woven in a twill weave and used for sports clothes is (a) corduroy, (b) denim, (c) sailcloth, (d) terry cloth.	6.4	<u>35.6</u>	46.0	11.6	.4
7. A light weight yarn-dyed fabric that is most often plaid or striped is (a) broadcloth, (b) dimity, (c) gingham, (d) percale.	15.4	2.5	<u>73.9</u>	7.4	.8
8. A fabric made from cotton and Cupione rayon will look like (a) silk taffeta, (b) cotton broadcloth, (c) rayon chiffon, (d) silk shantung.	20.3	27.8	26.9	<u>20.6</u>	4.4

Table XII - Continued

Percentage of Students' Responses to Nine Multiple-Choice
Questions on the Characteristics of Some Common Fabrics

Question IV	Response				No
	a	b	c	d	Answer
9. Mylar is the name of (a) a new fabric, (b) a metallic thread, (c) a special finish for cotton, (d) a crease resistant finish.	13.7	<u>24.8</u>	26.8	28.3	6.4
10. Dacron is (a) an animal fiber, (b) the name of a manufacturer, (c) the name of a drip-dry finish, (d) a synthetic fiber.	3.7	1.3	29.2	<u>65.2*</u>	0.6
11. A puckered or crinkled fabric in which the "pucker" is woven in is called (a) embossed cotton, (b) plisse, (c) seer-sucker, (d) crinkle-crepe.	17.8	14.5	<u>20.3</u>	46.8	.6
12. Dacron is sometimes combined with cotton into one fabric (a) to get people to buy the material, (b) to lower the cost of the fabric, (c) to improve the quality of the fabric, (d) to raise the cost of the fabric.	1.8	10.2	<u>85.6</u>	1.6	.8

* Underlining indicates the correct answer.

the percentage selecting the correct answer (denim). The larger percentage of students choosing sailcloth as the correct answer may be the result of the fact that this year sailcloth has been more popular than denim for use in sports clothes.

It appears from the range of percentages of students answering item eight that the students were guessing at the correct answer for Cupione rayon. "Cotton broadcloth" and "rayon chiffon" each contained the word "rayon" or "cotton", the same words that appeared in the question. This may be the reason why more girls selected these two answers than the other choices. "Silk shantung," the correct answer, received only 20.6 per cent of the responses.

In item nine, the majority of the girls selected the incorrect answer. "A metallic thread," "a special finish for cotton," and "a crease-resistant finish" were most often selected as the definition of Mylar. Only 24.8 per cent selected the correct answer, "a metallic thread". These percentages tend to indicate that the students are not familiar with Mylar.

Even though 65.2 per cent of the students knew the correct definition of Dacron in item ten ("a synthetic fiber"), 29.2 per cent of the girls responded that Dacron was the name of a drip-dry finish. The reason for this

may be that Dacron is often advertised as a drip-dry fabric.

In item five of this question, 64.1 per cent of the students were able to identify that seersucker required little ironing, but in item eleven only 20.3 per cent responded that the "pucker" was woven into the fabric. It is possible that in item five most students marked seersucker correctly because it was the most likely answer rather than because they understood the term.

Discussion of Table XIII

In all items of question IX, except six and ten, the percentage of students answering correctly was significantly higher than the percentage who answered incorrectly (Table XIII).

It is interesting to note that in item six, 64.5 per cent of the students were of the opinion that jersey is a woven rather than knitted fabric. Perhaps because of the difficulties involved in working with jersey, the girls have had little or no experience in using it in the construction of clothing.

In item ten, 70.5 per cent of the students responded incorrectly that spun rayon was smooth and shiny. Apparently the word "spun" was misinterpreted by the girls.

Table XIII

Percentage of Students' Responses to
Eight True-False Questions on the
Characteristics of Certain Common
Fabrics

Question IX	True	False	No Answer
6. Jersey is a woven fabric.	64.5	<u>34.2</u> *	1.3
7. Terry cloth looks like a bath towel.	<u>94.6</u>	4.4	1.0
8. Taffeta can be made from acetate, rayon, or silk.	<u>67.4</u>	30.7	1.9
9. Corduroy is made of cotton with a pile weave.	<u>78.2</u>	19.8	2.0
10. Fabrics made from spun rayon are smooth and shiny, like satin.	70.5	<u>27.4</u>	2.1
11. Nylon is a relatively weak fiber.	25.4	<u>72.8</u>	1.8
12. Linen wrinkles easily unless it has been treated to be wrinkle resistant.	<u>65.4</u>	32.9	1.7
13. Nylon dries quickly and irons easily.	<u>86.5</u>	12.2	1.3

* Underlining indicates the correct answer.

Are the students able to identify commonly used fabrics? Had the students selected the answers completely at random, the expected score would have been 6.25 for this category (Tables XI through XIII). Actually the students made a score of 9.6, or 3.35 points higher than the expected score. This fact suggests that generally the students participating in this study are able to identify the characteristics of commonly used fabrics.

Does the Student Understand the Characteristics of Certain Fabrics that Require Special Consideration When Laying Out Patterns?

Because of the characteristics of certain types of fabrics, additional yardage is required for the construction of the garment. Certain questions were designed to determine whether the students are able to recognize certain fabrics that require additional yardage and the reason extra fabric is needed. The questions that relate to this category are:

Question V, items 1,2,3,4,5,6, and 7
(Table XIV).

Question VI, items 1,2,3,4,5,6, and 7
(Table XV).

Discussion of Table XIV

Most students were able to respond correctly to all of the items of question V (Table XIV). The number of

Table XIV

Percentage of Students' Responses to
Seven Matching Questions on Certain
Fabrics that Require Additional Yard-
age for the Construction of Garments

Question V	:Needs :Extra :Fabric	:Does Not :Need :Extra Fabric	: Do Not : Know	: No : Answer
1. Red corduroy	<u>81.9</u> *	13.6	3.7	0.8
2. One-way percale print	<u>67.2</u>	22.8	9.1	.9
3. Blue organdy	18.3	<u>70.8</u>	9.9	1.0
4. Pink Indian head	15.8	<u>65.4</u>	17.9	.9
5. Green velveteen	<u>69.0</u>	21.1	8.9	1.0
6. Plaid gingham	<u>65.6</u>	27.7	5.9	.8
7. Either-way broadcloth print	17.7	<u>73.2</u>	7.8	1.3

* Underlining indicates the correct answer.

correct responses was significantly higher than the number of incorrect responses.

Discussion of Table XV

The percentage of students selecting the correct answer in all of the seven items of question VI was significantly higher than the percentage of students selecting any other one answer (Table XV). In items 4 (Pink Indian head), 6 (Plaid Gingham), and 7 (Either-way Broadcloth Print), the correct answers were significantly higher than the combined wrong answers. However, there was no significant difference between the percentages of students choosing the correct or incorrect answers on items 1 (Red Corduroy), 2 (One-way Percale Print), 3 (Blue Organdy, and 5 (Green Velveteen).

A large percentage of students did not indicate an answer on any of the items in question VI. It may be that either the girls did not understand the instructions for answering these items or they actually did not know the answers. This was the only question in which such a large percentage of girls did not indicate an answer.

Do students understand the characteristics of certain fabrics that require special consideration when laying out the pattern? If the questions of this category (Tables XIV and XV) had been answered completely

Table XV

Percentage of Students' Responses to Seven Questions Regarding
the Reason for Purchasing Additional Yardage for Certain Fabrics Used in Clothing
Construction

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Question VI	Red	One-way	Blue	Pink	Green	Plaid	Either-way
	Corduroy	Percale	Organdy	Indian	Velvet	Ging-	Broadcloth
	Print	Print	Head	Head	Ham	Ham	Print
a. Fabrics with a right and wrong side require addi- tional yard- age.	11.3	5.7	2.4	4.1	9.1	2.1	4.5
b. Flimsy or light- weight fabrics need additional yardage so that you can cut the pieces one at a time.	1.1	5.0	25.0	4.0	3.0	3.1	1.7
c. The design or weave of the fabric needs to be matched.	15.7	17.7	2.5	4.7	5.1	<u>64.0*</u>	5.5

Table XV - Continued

Percentage of Students' Responses to Seven Questions Regarding
the Reason for Purchasing Additional Yardage for Certain Fabrics Used in Clothing
Construction

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
	Red	One-way	Blue	Pink	Green	Plaid	Either-way
Question VI	Corduroy	Percale	Organdy	Indian	Velvet	Ging-	Broadcloth
	Print			Head	een	ham	Print
d. Thick fabrics need more yard- age because you have to cut the pieces one at a time.	6.9	.8	1.5	5.7	11.3	1.3	2.7
e. Fabrics which might shrink when washed need extra yard- age for wide seams and hems.	2.5	2.4	5.8	6.7	5.2	2.1	4.2
f. Fabrics having an up and down print must be cut out with the pattern pieces headed in the same direc- tion.	6.7	<u>46.9*</u>	1.4	4.3	3.0	7.6	6.5

Table XV - Continued

Percentage of Students' Responses to Seven Questions Regarding
the Reason for Purchasing Additional Yardage for Certain Fabrics Used in Clothing
Construction

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Question VI	Red	One-way	Blue	Pink	Green	Plaid	Either-way
	Corduroy	Percale	Organdy	Indian	Velvet	Ging-	Broadcloth
	Print	Print	Print	Head	sen	ham	Print
g. Pattern pieces must be headed in the same direction to avoid varia- tions in shades of color in Sally's dress.	<u>45.5</u>	5.0	2.1	2.8	<u>42.4</u>	2.9	3.3
h. No extra yardage is needed.	3.2	7.5	<u>45.2</u>	<u>50.0</u>	9.4	8.6	<u>57.8</u>
No answer given	7.1	9.0	14.1	17.7	11.5	8.3	13.8

* Underlining indicates the correct answer.

at random, the expected score would have been 4.38. The students actually made a score of 8.4 or 4.02 points higher than the expected score. This fact indicates that the students have a fair understanding of what types of fabrics require extra yardage; however they are not aware of the reasons why certain fabrics need additional yardage. This is shown by the fact that, in question VI (Table XV), items 1,2,3, and 5, there was no significant difference between the percentage of students choosing the correct or incorrect answers.

Does the Student Have an Understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules?

There are certain rules and regulations to which the manufacturers of wool and silk fabrics must conform in relation to the labeling of their products. Certain questions in the examination were planned to test the students on their understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules. The questions are:

Question IV, items 13,14,15, and 16 (Table XVI).

Question IX, items 14,15, and 16 (Table XVII).

Discussion of Table XVI

In items 13 and 15, the percentage of students selecting the correct answer was significantly larger than the percentage of students selecting the incorrect answer (Table XVI).

A significantly higher percentage of students responded in items 14 and 16 with the incorrect answer than with the correct answer. In item 14 a larger percentage of students indicated that "virgin wool" was the correct answer, whereas "worsted" was the correct response. In item 16, a greater percentage of students selected "raw silk" as the answer rather than "pure dye silk" which was the correct answer. In item 16 it would appear that the girls concluded that "raw" means that there is no other substance present.

Table XVI

Percentage of Students' Responses to Four Multiple-Choice
Questions on Interpreting Label Information Concerning Wool and Silk

Question IV	Response				No Answer
	a	b	c	d	
13. Wool fabric made from wool fibers which have been previously woven into cloth but not used by the consumer is called (a) decated wool, (b) reused wool, (c) reprocessed wool, (d) worsted.	10.6	12.9	<u>57.8*</u>	16.7	2.0
14. Wool fabric that has been made from long wool fibers and is smooth in appearance is called (a) wool, (b) woolen, (c) worsted, (d) virgin wool.	5.5	20.2	<u>30.4</u>	41.9	2.0
15. Wool fabrics that are made from new wool fibers are called (a) woolens, (b) worsted, (c) virgin wool, (d) gabardine.	17.8	10.4	<u>54.6</u>	14.9	2.2
16. Silk that has not been weighted more than 10-15% is known as (a) shantung, (b) raw silk, (c) pure dye silk, (d) silk.	18.6	44.6	<u>15.8</u>	17.2	3.8

* Underlining indicates the correct answer.

Discussion of Table XVII

In item 14, question IX, a significantly higher percentage of students correctly answered the item; however in a similar item (Table XVI, question IV, item 16) a significantly larger percentage of girls responded, incorrectly, that unweighted silk is "raw silk" (Table XVII). The evidence from these two items seems to suggest that the students actually do not know what the terms "pure dye silk" or "pure silk" mean.

There was no significant difference between the correct and incorrect responses in item 15, indicating that the girls do not know what the term "100% Wool" means.

Do the students have an understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules? Had the students answered the questions completely at random, the expected score would have been 2.5. The students' actual score was 3.5, only 1.0 point higher than the expected score. The implication is that the students do not have a complete understanding of the Wool Products Labeling Act or the Pure Silk Trade Practice Rules.

Table XVII

Percentage of Students' Responses to
Three Matching Questions On Interpreting
Label Information Concerning Wool and Silk

Question IX	True	False	No Answer
14. The term "pure silk" or "all silk" on a label means that the fabric has not been weighted more than 10-15%.	<u>61.0*</u>	34.5	4.5
15. The term "100% Wool" on a label means that the wool is new or virgin wool.	<u>47.7</u>	50.3	2.0
16. Any fabric that contains wool must be labeled as to how much wool is in it.	<u>90.8</u>	7.7	1.5

* Underlining indicates correct answer.

Conclusions

Evidence produced from the tabulation of the examination seems to indicate the following conclusions:

1. The more experience girls have in constructing clothing, the more they understand about fabrics.
2. Girls who purchase their own fabrics without help from anyone have a better understanding of fabrics than girls who have help with their purchases.
3. The type of store in which the fabric for the student's garment is purchased is not related to her understanding of fabrics.
4. Students have a relatively good understanding of the fabrics suitable for use in some basic garments.
5. Students generally are able to identify the characteristics of commonly used fabrics.
6. Students have a fair understanding of the types of fabrics that require additional yardage for the construction of a garment; however, they do not understand why extra fabric is needed.
7. Students do not have a comprehensive understanding of the information that is found on yardage labels. Terms related to colorfastness and washing are the least understood.
8. Students do not have a complete understanding of the Wool Products Labeling Act or the Pure Silk Trade Practice Rules.

The girls were able to make fairly good scores in judging fabrics. They made the poorest scores in the area of label information. The implication may be that

clothing construction is emphasized more in high school home economics classes and label information is incidental. There were two judgment questions on the examination; in one the students were to select the "best buy", and in the other they were to indicate the reason for purchasing additional yardage. They were unable to apply the knowledge that they had exhibited in answering correctly the true-false questions concerning the illustrated labels to select the "best buy". Even though most of the girls in all instances indicated correctly the fabrics that required additional yardage, they were in most cases unable to select the correct reasons for purchasing additional yardage. This seems to indicate that the students lack the ability to apply their knowledge to solve problems. It is possible that classroom instruction is too far removed from actual experience for the students to draw a logical solution to their problem. Maturity is probably a factor in their lack of ability to solve problems.

The students earned a mean score of 39.7 on the examination. This score is 12.28 points higher than the expected score (27.42), which was based on the completely random answering of the questions. Should the students have received higher scores? Perhaps this is the score that could be expected in a large sampling of students

who had not been taught identical subject matter units in fabric purchasing and selection. Probably a subjective test over the same material covered in this objective test would yield more conclusive evidence as to the understanding and knowledge students have of fabrics. Of course, the difficulties in accurately checking a subjective test for such a large group of students would be prohibitive.

There are several possible reasons why the students did not make higher scores on the examination. They are:

1. Textile instruction is incidental to clothing construction in high school home economics classes.
2. Labeling practices of the textile industry are inconsistent in many instances.
3. Retail stores are negligent in leaving the manufacturer's "hang tag" on the fabrics.
4. Trade names and finishing terms are too numerous to remember or recall easily.
5. As one teacher commented, lower I.Q.'s could be responsible.
6. The girls' lack of interest or "Spring Fever" could be responsible.
7. In some instances the directions for answering the questions on the examination may have been difficult to interpret.

SUMMARY

Numerous new fabrics are appearing on the market each season. Many of the old textile "standbys" have been modified and modernized. The result is that each fabric has its own peculiar advantages and/or limitations depending on either its inherent qualities or applied finishes. The consumer faced with the almost infinite fiber combinations and finishes available in fabrics is presented with a real problem in selecting the best fabric for a specific use. Many questions pass through the consumer's mind as she shops in the fabric department. If the desired information about a fabric cannot be supplied by the sales person and/or the label, and if an intelligent purchase is to be made, the consumer will need to learn the characteristics of a specific fabric from another source.

Because teen-agers of today are tomorrow's adult consumers, it is important to find out if they are adequately prepared to be intelligent textile consumers. This study was designed to find out to what degree high school girls understand textile terminology, as it is related to yard goods, after having taken at least three full years of home economics courses in which there were units on textiles and clothing construction. Other

factors considered in the study were the actual experiences girls have had in sewing in the classroom as well as at home, and/or purchasing fabrics.

The writer has been unable to find any study that presents any data relevant to the understanding of textiles and textile terminology by high school home economics students. This study was planned to determine to what extent the advanced homemaking students of western Oregon high schools are prepared to purchase and use fabrics wisely.

The writer developed an examination to be used in testing advanced high school home economics students in order to determine to what degree the students know and understand textiles and textile terminology. Through the use of this specially designed test an effort was made to ascertain the following:

- I. Is there any relationship between the amount of clothing construction a student does and her total score on the test?
- II. Is there any relationship between who purchases the fabric a student uses in her garments and her total score on the test?
- III. Is there any relationship between the type of store (department, variety, single line, mail order catalogue) in which the fabric used in the student's garment was purchased and her total score on the test?

IV. Does the student understand textile terminology?

- A. How much of the information found on labels does the student understand?
- B. Is the student able to select appropriate fabrics to be used in simple garments?
- C. Is the student able to identify commonly used fabrics?
- D. Does the student understand the characteristics of certain fabrics that require special consideration when placing a pattern on the fabric?
- E. Does the student have an understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules?

In order to develop the examination it was necessary to determine what types of fabrics were available on the retail market. Using Grace Denny's book, Fabrics, (2) as a reference, a check list of fabrics, fibers, and finishes was compiled.

Then a list of towns in which to survey the retail market was formulated. Because of the impracticability of surveying stores in all of Oregon, the survey was limited to western Oregon. An effort was made to select cities and towns varying in population from small to large (689 to 402,000). The geographic distribution of the towns to be included in the survey was also considered important. A representative group of valley and coastal towns was selected.

In the small towns all of the stores that sold

yardage were surveyed; in the three larger cities (Eugene, Salem and Portland) only the stores selling yardage in the central business district were surveyed. Fabric shops, department stores, and variety stores were included, a total of 29 stores in nine shopping areas. The Montgomery Ward and Sears and Roebuck catalogues were also surveyed.

When the survey was taken, a textile term was checked as defined if the explanation of the trade name appeared on the label. Trade names that were consistently found to be defined on labels were not used on the examination because it seemed unnecessary to expect students to memorize terms that are consistently defined. If the definition or explanation of a term was not on the label a notation to that effect was made. Only the textile terms used most frequently in both large and small town stores were used as the bases for the examination.

With the store survey as a guide, an objective type test was constructed. An answer sheet was designed to ease the marking and recording of the answers as well as to eliminate the additional expense of having the entire examination returned by mail.

Because the store survey was confined to western Oregon, the sample group was also limited to high school home economics students in western Oregon. The sample was further reduced by testing only students who had

completed at least three years of high school homemaking.

One hundred and twenty-six public high schools in counties west of the Cascade summit were contacted. A hand-typed letter was sent to the homemaking teacher explaining the purpose of the study and asking her cooperation. Out of the 126 teachers contacted, 70 teachers replied that they would participate in the study.

A total of 1,479 examinations were sent to the 70 cooperating high schools. Within three weeks after the tests were mailed, 47 teachers had returned the answer sheets. Twenty-three follow-up letters were sent to the teachers who had not returned the answer sheets. A final count of 63 high schools returned a total of 978 answer sheets.

As the answer sheets were returned, each one was numbered to facilitate the job of retracing any possible errors made in recording the answers. The answer sheets were corrected and one point subtracted for each error; a perfect score was 74, with one point allowed for each question. Each answer as well as the total score was written on a large tabulation sheet.

An analysis of variance test was used to compare the relationship between the student's total test score and the amount of personal sewing done, who purchased the fabrics, and the type of store in which the fabrics

were purchased. Tests of significance on the individual test questions were made by means of the chi-squared test. In all cases, the test of significance was based on the five per cent level. Assuming that all questions on the examination had been answered completely at random, the expected score would have been 27.42. This expected score was used as a basis for comparison with the actual score.

The highest score made by a student was 64, and the lowest score was 6. The mean score for the examination was 39.70, the median score was 39.705, and the mode was 41. One standard deviation was plus or minus 7.6 points. Only 5.2 per cent of the students received a score below the expected score of 27.42.

Girls who sew almost all or most of their outer garments made significantly better scores than the students who sew just some of their outer garments. It was also found that girls who construct some outer garments made significantly higher scores than those who construct only the garments that are required as class work.

Students who purchase their own fabrics without aid made significantly higher scores than those who purchase their fabric with help from their mothers.

The test score of the student was not affected by

the type of store in which the fabric for her garment was purchased.

Do students understand the information found on labels? Assuming that the questions in this group were answered completely at random, the expected score would be 13.58. The students' actual score was 15.2, or 1.62 points higher than the expected score. Terms related to colorfastness and washing seemed to be the least understood by the students. In comparing the students' actual score with the expected score it would appear that the students do not have a comprehensive understanding of the information that is found on labels.

Are students able to select appropriate fabrics for simple garments? Assuming that the questions were answered completely at random, the expected score for this question would be 0.71. The students earned a score of 3.0, which is 2.29 points higher than the expected score. The evidence seems to indicate that the students have a relatively good understanding of the fabrics that would be suitable for use in some basic garments.

Are students able to identify commonly used fabrics? The expected score for this category was 6.25. The students actually made a score of 9.6, or 3.35 points higher than the expected score. This result would indicate that generally the students seem able to identify

the characteristics of commonly used fabrics.

Do students understand the characteristics of certain fabrics that require special consideration when they are laying out the pattern for their garment? The students made a score of 8.4, or 4.02 points higher than the expected score of 4.38. This would seem to imply that the students have a fair understanding of what types of fabrics require extra yardage. However, from the evidence on the second part of the question it appears that many students do not understand why certain fabrics require additional yardage.

Do the students have an understanding of the Wool Products Labeling Act and the Pure Silk Trade Practice Rules? The expected score for this group of questions was 2.50. The students' actual score was 3.5, only 1.0 point higher than the expected score. The implication seems to be that the students do not have an understanding of these labeling terms and their meanings.

Generally students have a better understanding of fabrics in regard to their use in the construction of garments than of the terms that appear on the labels of yard goods. The more experiences girls have with selecting fabrics and constructing garments, the more they understand about textiles and textile terminology.

The results of the examination should help teachers with their plans for course work for their high school home economics students in relation to the selection, purchase, and use of fabrics.

RECOMMENDATIONS

The tabulated results of this test show that the students lack knowledge and understanding of labeling information. Further analyses of the data presented in this thesis could be done. The analyses could be carried one step further to determine which students are making the higher scores on the labeling questions. Is it the girls who do the most sewing or is it the girls who purchase their own fabrics? Similar analyses could be done with the test scores that pertain to the understanding of common fabrics. Which girls are making the higher scores in this category--the girls who do the most sewing or the girls who purchase their own fabrics?

If specific instruction on fabric selection and the interpretation of fabric labels were given to a group of advanced high school home economics students and then the test used in this study administered later in the school year, these scores could be compared with the scores obtained in the present study. It might also be interesting to give the same test to a group of high school girls of the same age who had not had any home economics training in high school and compare their scores with the scores of the original test group of 978 students. Because I.Q. is a factor in learning,

perhaps in future testing the I.Q.'s of the students could be compared with their test scores.

Because the evidence presented by the data in this study shows that girls who do the most sewing made significantly higher scores, and girls who purchase their own fabrics also made significantly higher scores on the examination, the writer recommends that high school home economics teachers make a special effort to encourage their students to do sewing other than classroom projects and also to purchase their own fabrics for the garments they construct.

Using the results of the data presented, units on purchasing and using fabrics could be planned for beginning, intermediate, and advanced high school home economics students.

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A P P E N D I X A

ANSWER SHEET

Page 1Page 2Page 3Page 4

I	IV			
— a	— 10			
— b	— 11			
— c	— 12			
— d	— 13			
	— 14			
II	— 15			
— a	— 16			
— b				
— c	V			
— d	Needs: Does Not : Do Not			
	Extra: Need Extra: Know			
III	1	—	—	—
— a	2	—	—	—
— b	3	—	—	—
— c	4	—	—	—
	5	—	—	—
IV	6	—	—	—
1	7	—	—	—
2				
3	VI			
4	— 1			
5	— 2			
6	— 3			
7	— 4			
8	— 5			
9	— 6			
	— 7			

VII	IX
— 1	— 1
— 2	— 2
— 3	— 3
— 4	— 4
— 5	— 5
	— 6
VIII	— 7
— 1	— 8
— 2	— 9
— 3	— 10
— 4	— 11
— 5	— 12
— 6	— 13
— 7	— 14
— 8	— 15
— 9	— 16
— 10	

X
Group I
— 1
— 2
— 3
— 4
— 5
— 6
Group II
— 1
— 2
— 3
— 4
— 5
— 6
— 7

TEXTILE TEST FOR ADVANCED HOMEMAKING STUDENTS

GENERAL INSTRUCTIONS FOR TAKING THIS TEST: With this copy of the test there is a separate answer sheet. As you answer a question be sure that you mark the correct item on the answer sheet. BE SURE THAT YOUR ANSWER IS PLACED ON THE ANSWER SHEET.

- I. How much of your own sewing do you do for yourself? Place an "X" by the most appropriate answer ON THE ANSWER SHEET.
 - a. Almost all of my outer garments (outer garments include blouses, dresses, shirts, shorts, pedal pushers, coats, jackets, suits, formals, pajamas, and housecoats).
 - b. Most of my outer garments
 - c. Some of my outer garments
 - d. Only what I make in school
- II. Who usually decides what fabric will be purchased for your sewing project? Place an "X" by the most appropriate answer ON THE ANSWER SHEET.
 - a. Only you
 - b. You and your mother
 - c. Only your mother
 - d. Some other person (grandmother, aunt, sister, etc.)
- III. Where do you usually purchase the fabric you use when you sew? Place an "X" by the most appropriate answer ON THE ANSWER SHEET.
 - a. Store that sells only yardage and notions
 - b. Department store
 - c. Mail order catalogue
- IV. Multiple-Choice: Select the best answer to the following statements. Place the letter of your answer on the blank beside the number. Remember to place your answer ON THE ANSWER SHEET.
 1. "100% Rayon" on a label means that the type of rayon in the fabric is (a) acetate, (b) acrilan, (c) arnel, (d) viscose.

2. Shrinking of new wool fabrics before sewing (can be done at home) is called (a) decatizing, (b) napping, (c) sponging, (d) retting.
3. A process that preshrinks fabric so that the shrinkage during use is less than 1 per cent is called (a) Superset, (b) Preshrunk, (c) Shrinketized, (d) Sanforized.
4. A cotton fabric that is woven in either a waffle design or lengthwise rib is (a) denim, (b) dimity, (c) pique, (d) seersucker.
5. A fabric that needs little or no ironing is (a) dimity, (b) dotted Swiss, (c) Indian head, (d) seersucker.
6. A cotton fabric woven in a twill weave and used for sports clothes is (a) corduroy, (b) denim, (c) sailcloth, (d) terrycloth.
7. A light weight yarn-dyed fabric that is most often plaid or striped is (a) broadcloth, (b) dimity, (c) gingham, (d) percale.
8. A fabric made from cotton and coupions rayon will look like (a) silk taffeta, (b) cotton broadcloth, (c) rayon chiffon, (d) silk shantung.
9. Mylar is the name of (a) a new fabric, (b) a metallic thread, (c) a special finish for cotton, (d) a crease resistant finish.
10. Dacron is (a) an animal fiber, (b) the name of a manufacturer, (c) the name of a drip-dry finish, (d) a synthetic fiber.
11. A puckered or crinkled fabric in which the "pucker" is woven in is called (a) embossed cotton, (b) plisse, (c) seersucker, (d) crinkle-crepe.
12. Dacron is sometimes combined with cotton into one fabric (a) to get people to buy the material, (b) to lower the cost of the fabric, (c) to improve the quality of the fabric, (d) to raise the cost of the fabric.
13. Wool fabric made from wool fibers which have been previously woven into cloth but not used by the consumer is called (a) decated wool, (b) reused wool, (c) reprocessed wool, (d) worsted.
14. Wool fabric that has been made from long wool fibers and is smooth in appearance is called (a) wool, (b) woolen, (c) worsted, (d) virgin wool.

15. Wool fabrics that are made from new wool fibers are called (a) woolens, (b) worsted, (c) virgin wool, (d) gabardine.
16. Silk that has not been weighted more than 10-15% is known as (a) shantung, (b) raw silk, (c) pure dye silk, (d) silk.

V. Sally has purchased a pattern for a dress she will make in class. On the back of the pattern envelope it says that extra fabric is required for cutting fabrics of certain types and certain designs. Some of the following fabrics need extra yardage and some do not. Place an "X" ON THE ANSWER SHEET in the correct column.

- | | |
|---------------------|--------------------------|
| 1. Red corduroy | 5. Green velveteen |
| 2. One-way percale | 6. Plaid gingham |
| 3. Blue organdy | 7. Either-way broadcloth |
| 4. Pink Indian head | print |

VI. From the following statements select the reason that explains why more yardage is required for the fabrics listed in question V. Some of the reasons may not be used; some may be used more than once. Place the letter of the reason on the line that matches the fabric. Place your answer ON THE ANSWER SHEET.

- | | |
|--------------------------|--------------------------|
| 1. Red corduroy | 5. Green velveteen |
| 2. One-way percale print | 6. Plaid gingham |
| 3. Blue organdy | 7. Either-way broadcloth |
| 4. Pink Indian head | print |

- a. Fabrics with a right and wrong side require additional yardage
- b. Flimsy or light weight fabrics need additional yardage so that you can cut the pieces one at a time
- c. The design or weave of the fabric needs to be matched
- d. Thick fabrics need more yardage because you have to cut the pieces one at a time
- e. Fabrics which might shrink when washed need extra yardage for wide seams and hems
- f. Fabrics having an up and down print must be cut with the pattern pieces headed in the same direction

- g. Pattern pieces must be headed in the same direction to avoid variations in shades of color in Sally's dress
- h. No extra yardage is needed for cutting out Sally's dress

VII. In Column I is a list of some garments to be made. In Column II are some suggested fabrics to be used. Place the letter of the most suitable fabric on the line matching the garment. Some of the fabrics will not be used. Be sure you place your answer ON THE ANSWER SHEET.

Column I: GARMENT TO BE MADE

- 1. A pair of pedal pushers for summer
- 2. A durable blouse to wear with gym shorts
- 3. A pair of light weight pajamas for summer that will require little ironing
- 4. A fancy waist apron to wear on special occasions
- 5. A christening dress for an infant girl

Column II: FABRIC

- a. Batiste
- b. Broadcloth
- c. Chiffon
- d. Organdy
- e. Plisse
- f. Polished cotton
- g. Sailcloth

VIII. Joan wants to make a summer dress. She has found two fabrics that she likes; both are the same color, same width, and similar in design. She cannot decide which one to buy. Below are the labels that are on each bolt. Can you help Joan decide?

(Illustrated labels on page 89).

LABEL ONE



FRONT

RESIDUAL SHRINKAGE
1%
100% COMBED COTTON
DURABLE CREASE
RESISTANT FINISH
NEEDS LITTLE
IRONING
~
SUN-TIME FABRICS
HOLLYWOOD, CALIF.

BACK

LABEL TWO



FRONT

PRESHRUNK
GUARANTEED
COLORFAST
WILL NOT WRINKLE
OR CREASE
NEEDS NO IRONING
~
CAY OF CALIFORNIA
HOLLYWOOD

BACK

Below are some TRUE-FALSE statements about the two labels and their information. Mark the TRUE statements with a / and the FALSE statements with a 0. Place your answers ON THE ANSWER SHEET.

1. Combed cotton fibers are longer and stronger than carded cotton fibers.
2. Vat-dyed colors are more permanent than any other dyes for cotton.
3. Preshrunk means that the fabric will not shrink when it is washed.
4. Mercerizing is a process that adds luster and strength to cotton.
5. "Residual Shrinkage 1%" is a phrase that has little or no meaning for the consumer.
6. "Guaranteed Colorfast" means that the colors are fast to washing and sunlight.
7. Cay's cotton will be easier to take care of because you do not have to iron them.
8. All cotton fabric will wrinkle when worn even if they have been treated not to wrinkle.
9. For the best buy Joan should purchase "Cay's Cottons."
10. For the best buy Joan should purchase "Sun-Time Fabrics."

IX. TRUE-FALSE: Place a / for TRUE statements and 0 for FALSE statements ON THE ANSWER SHEETS.

1. Printed fabrics are more colorfast than yarn-dyed fabrics.
2. The term "durable glaze" found on a polished cotton label means that the glaze will remain even though the garment is washed.
3. The term "permanent pleats" on a cotton fabric means that the pleats will remain for the life of the garment.
4. Dri-don is a Dan River trade name that means little or no ironing is needed.
5. Wrinkl-shed is a trade name that means that the fabric will not wrinkle.
6. Jersey is a woven fabric.
7. Terry cloth looks like a bath towel.
8. Taffeta can be made from acetate, rayon, or silk.
9. Corduroy is made of cotton with a pile weave.
10. Fabrics made from spun rayon are smooth and shiny, like satin.
11. Nylon is a relatively weak fiber.
12. Linen wrinkles easily unless it has been treated to be wrinkle resistant.
13. Nylon dries quickly and irons easily.
14. The term "pure silk" or "all silk" on a label means that the fabric has not been weighted more than 10-15%.
15. The term "100% Wool" on a label means that the wool is new or virgin wool.
16. Any fabric that contains wool must be labeled as to how much wool is in it.

- X. The following groups are made up of phrases that appear on labels. Place the letter of the definition on the blank by the correct phrase. The definitions may be used more than once. Remember to mark your answer ON THE ANSWER SHEET.

Group I: TERM ON LABEL

DEFINITION

- | | |
|--------------------------|----------------------|
| 1. Colorfast | |
| 2. Guaranteed fast color | a. Term means fabric |
| 3. Colorfast to washing | will be reasonably |
| 4. Vat colors | fast color |
| 5. Vat-dyed | b. Term has little |
| 6. Sunfast | meaning |

Group II: TERM ON LABEL

DEFINITION

- | | |
|--------------------------|--|
| 1. Guaranteed washfast | a. Term means that the fabric can be washed without noticeable shrinking or fading |
| 2. Machine washable | |
| 3. Fully washable | |
| 4. Preshrunk | |
| 5. Sanforized | |
| 6. Shrinketized | b. Term means the remaining shrinkage is 2% or less |
| 7. Residual shrinkage 2% | c. Term has little meaning |

APPENDIX B

520 Kings Road
Corvallis, Oregon
February 1, 1958

Miss Bertha Kohlhausen
State Supervisor of Home Economics
103 State Library Building
Salem, Oregon

Dear Miss Kohlhausen:

I am writing to you in regard to my thesis topic for my Master of Science degree. My title as it now stands is: "A Survey of Third Year Homemaking Students of Their Understanding of Textiles and Textile Terminology Found in Retail Yard Goods Outlets." I realize that the title is somewhat cumbersome at this point and needs revision, but it explains what I would like to do. To qualify it further I would like to say that I plan to only survey western Oregon; and in the schools where four years of homemaking are offered, the fourth year girls rather than third year students would be considered. I might mention also that individual schools are not to be compared. Miss DuBois suggested that due to the red tape involved I should exclude the Portland schools.

Some questions that I hope to answer through this study are: (1) To what extent are Oregon high school students adequately prepared to be wise textile consumers?, (2) Do the students know textile terminology?, (3) Are the students able to select a suitable fabric for the garment they wish to construct?, (4) Will students who live near large markets make higher scores on the exam than students who do their shopping in small towns or from catalogues?, (5) Will there be any relationship between the amount of home sewing that the student does and her score on the exam?.

My purpose in doing this study is to make the data available to home economics teachers so that they may use them as a basis for evaluating their own textiles or consumer buying units.

I would appreciate any suggestions or opinions that you may have to offer.

Sincerely yours,

(Mrs.) Gwendolyn Mitchell

Salem, Oregon
February 19, 1958

Mrs. Gwendolyn Mitchell
520 Kings Road
Corvallis, Oregon

Dear Mrs. Mitchell:

Miss Deischer and I read with interest your letter outlining plans for your thesis. We believe that such a study is needed in Oregon and teachers would find the data helpful.

There are very few high schools that offer four years of homemaking in high school, so that the number of senior students in homemaking is limited. You may want to consider third year students in order to have a representative group.

One difficulty homemaking teachers have is that students bring fabrics to class which they have not purchased. We find that they do not know the type of fabric or the cost. We are interested in your preliminary plans and if we can be of further assistance to you as your study progresses, will you write us?

Very truly yours,

Bertha Kohlhaugen
State Supervisor
Home Economics Education

520 Kings Road
Corvallis, Oregon
March 4, 1958

Miss Bertha Kohlhausen
State Supervisor of Home Economics
103 State Library Building
Salem, Oregon

Dear Miss Kohlhausen:

I received your letter of February 19 and I thank you for your interest in my thesis subject, "The Understanding of Textile Terminology by Advanced Homemaking Students in Western Oregon High Schools."

In order to conduct my survey I need to know the names of the home economics teachers in western Oregon, their schools and addresses. Dr. May DuBois mentioned that your office has this information and if it is available I would sincerely appreciate having a copy as soon as possible.

I know that you are very busy planning the Future Homemakers' state meeting and I am grateful for the time you are giving me.

Sincerely yours,

(Mrs.) Gwendolyn Mitchell

APPENDIX C

520 Kings Road
Corvallis, Oregon
March 16, 1958

Mrs. Mary Jones
Union High School
Southdale, Oregon

Dear Mrs. Jones:

I am working on my Master of Science Degree in Clothing and Textiles at Oregon State College. In order to write my thesis I need your help. Miss Bertha Kohlhausen has expressed an interest in my study and has supplied the list from which I received your name.

The title of my thesis is "The Understanding of Textile Terminology by Advanced Homemaking Students in Western Oregon High Schools." I am preparing an examination covering the terminology that a consumer encounters when shopping for yardage. The test can be taken in one class period and is to be given to third and/or fourth year homemaking students. The tests will be ready for mailing by the end of April. Any time between then and the end of the school year that you find convenient for giving the test will be satisfactory. Enclosed in the packet with the tests will be a stamped envelope for you to use in returning the answer sheets.

The purpose for doing this research is to make the results available for use as a basis for evaluating or establishing consumer buying units. This study is not being done in order to compare schools. The overall scores and item analysis of the test are the primary concern of my thesis. I am not interested in how well your class does in relation to classes in other schools.

I hope that you will be able to find time in your busy schedule to participate in this survey.

Enclosed is a card that I would appreciate having returned to me.

Sincerely yours,

(Mrs.) Gwendolyn Mitchell

Postcard enclosed in letter:

- _____ 1. I will participate in the survey.
- _____ 2. I cannot participate in the survey.
- _____ 3. I would like a summary of the results.
- _____ 4. Number of girls in 4th year homemaking.
- _____ 5. Number of girls in 3rd year homemaking.
- _____ 6. Approximate number of students enrolled in high school.

Name

High School

Address of School

APPENDIX D

520 Kings Road
Corvallis, Oregon
April 28, 1958

Mrs. Mary Jones
Union High School
Southdale, Oregon

Dear Mrs. Jones:

Enclosed are the tests that will be used to evaluate the textile knowledge of 3rd and 4th year homemaking students. Please give them only to girls who have had at least three years of homemaking (including this year) in which there were units of clothing and/or textiles.

The test is based on a recent survey I made of twenty-nine stores representing nine Oregon cities and two mail order catalogues. Only the most frequently found terms and fabrics were used in the construction of the examination questions. The test is difficult even though only the most frequently used terms are included. This was demonstrated by a trial run in which the examination was taken by sixty-nine high school homemaking students. However the test is not intended to be easy. If everyone did well on the test, it would not yield much information. It is as important to find out what the girls do not know as it is to find out what they do know. This was taken into consideration when the test was written. Therefore, I would be surprised if the girls made what would ordinarily be considered a good score.

I am enclosing the key for your personal information. I do not expect you to grade the tests. You may keep the examinations for your own use as I only want the answer sheets returned.

I want to thank you for your cooperation and help with my survey. The summary you have requested will not be ready until mid-summer. At that time I will mail it to your school address unless you request I send it to a different address.

Sincerely yours,

(Mrs.) Gwendolyn Mitchell

GENERAL INSTRUCTIONS TO TEACHERS:

1. The test takes approximately thirty minutes to complete.
2. Have your students remove the answer sheet for ease in marking their answers.
3. Please do not answer any questions the students may have unless it concerns the way in which they are to mark an answer.
4. Only return the answer sheets to me as there is only enough postage on the enclosed envelope to cover them.

KEY

Page 1

I.
☐ a
☐ b
☐ c
☐ d

II.
☐ a
☐ b
☐ c
☐ d

III.
☐ a
☐ b
☐ c

IV.
☐ D 1
☐ C 2
☐ D 3
☐ C 4
☐ D 5
☐ B 6
☐ C 7
☐ D 8
☐ B 9

Page 2

IV.
☐ D 10
☐ C 11
☐ C 12
☐ C 13
☐ C 14
☐ C 15
☐ C 16

V.
 Needs: Does Not :Do Not
 Extra: Need Extra: Know
 1 ☒ ☐ ☐ ☐
 2 ☒ ☐ ☐ ☐
 3 ☐ ☐ ☒ ☐
 4 ☐ ☐ ☒ ☐
 5 ☒ ☐ ☐ ☐
 6 ☒ ☐ ☐ ☐
 7 ☐ ☐ ☒ ☐

VI.
☐ G 1
☐ F 2
☐ H 3
☐ H 4
☐ G 5
☐ C 6
☐ H 7

Page 3

VII.
☐ G 1
☐ B 2
☐ E 3
☐ D 4
☐ A 5

VIII.
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☒ 10

Page 4

IX.
☐ 0 1
☒ 1 2
☐ 0 3
☒ 1 4
☐ 0 5
☐ 0 6
☒ 1 7
☒ 1 8
☒ 1 9
☐ 0 10
☐ 0 11
☒ 1 12
☒ 1 13
☒ 1 14
☒ 1 15
☒ 1 16

X.
 Group I
☐ B 1
☐ B 2
☐ A 3
☐ B 4
☐ A 5
☐ B 6

Group II.
☐ C 1
☐ A 2
☐ C 3
☐ C 4
☐ B 5
☐ C 6
☐ B 7

APPENDIX E

520 Kings Road
Corvallis, Oregon
May 19, 1958

Mrs. Mary Jones
Union High School
Southdale, Oregon

Dear Mrs. Jones:

This is just a brief reminder concerning the textile tests I sent you for your advanced homemaking students. I realize that spring is a busy time for everyone, with proms, banquets, and graduation filling the calendar, however I do need to have the answer sheets returned as soon as possible so that I can finish my tabulations.

If you are unable to fit the tests into your schedule I would appreciate it if you would write me a note to that effect.

Sincerely yours,

(Mrs.) Gwendolyn Mitchell