

PRACTICES IN THE SELECTION OF FABRICS BY COLLEGE-TRAINED
HOMEMAKERS AS COMPARED WITH THOSE HAVING NO
COLLEGE TRAINING IN HOME ECONOMICS

by

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INTRODUCTION

The intelligent selection of fabrics for clothing is one of the most perplexing consumer problems that confronts the homemaker today. For hundreds of years fabrics were produced from cotton, wool, linen, or silk fibers. Generally speaking, it was not difficult to identify one of these fabrics because of its characteristic appearance and hand. Today the textile picture is more complex because the consumer has an almost endless variety of fabrics from which to choose. This change has been brought about by the development of man-made fibers as well as finishes for the natural fibers. In conjunction with these additions and changes in the area of textiles, a vocabulary of unfamiliar terms has evolved. Catchy phrases and coined words frequently connote "wonder" fabrics tantamount to "wonder" drugs in the field of medicine.

During the fifteen years that elapsed since the writer had studied Textiles some of the aforementioned progress in the textile industry transpired. It was with no small concern, upon returning to the field, that she realized her lack of knowledge in the area of textiles,

although there had been some attempt to keep abreast of those changes. If the writer, as a home economist, found the situation baffling, was it not typical of home makers in general?

Need for Study

It has been estimated that 63 per cent, or forty million American women sew (14, p. 95). Another source states that about 20 per cent of all feminine clothes are made at home, the average number ranging from four to six garments (13, p. 78). Estimates indicate that more than 90 per cent of the fabrics, including yardage and household linens, used in the United States are purchased by women and girls (10, p. 4). These estimates give us an idea of the great amount of sewing done in the home, they suggest indirectly that numerous and varied problems regarding fabric selection are involved, and they reveal to us the enormity of the textile industry in providing for this sewing activity.

A survey conducted by Helen M. Reynolds, an instructor of textiles and clothing at Heidelberg College, revealed that the three most common problems confronting women regarding clothing and textiles are: (1) the selection of quality fabrics, (2) caring for fabrics, and (3) construction techniques (10, p. 7). New fibers

and fabrics are continually appearing on the market; their names and the claims for their performance are widely advertised, but detailed information regarding their pertinent characteristics and performance is often lacking. If a consumer is going to select a fabric that is attractive, suitable, and serviceable, she needs a background of information regarding textiles. The average consumer is not likely to possess such knowledge; instead, she probably relies upon salespersons and/or labels to assist her in making wise purchases. If a label is attached to a fabric, it frequently has terms printed on it that amount to little more than a combination of adjectives. Information on the care and use of the natural fibers has been handed down from generation to generation, but the textile finishes and man-made fibers are so new that the homemaker is apt to be unfamiliar with their specific characteristics.

The writer was interested in determining what consumers use as a guide in the selection of fabrics if little information were available. Do homemakers have an understanding of standard fabrics, finishes, and man-made fibers? Is there any difference between home economists and women who have not been trained in home economics in respect to these problems? Has the training of the home economist influenced her to be

alert to current textile trends? Is the homemaker who has not had training in home economics aware of these changes? Thereupon, this study was designed to determine if women having training in textiles possess more understanding of the available fabrics and the terminology associated with them than do women not having such training. Because of the dearth of labels, or of helpful information on those which are available, the writer was also interested to learn what factors influence the consumer's choice of fabrics.

Statement of the Problem

The writer has been unable to find studies that furnish data applicable to this study. Previous studies have been conducted among high school and college freshmen groups to determine the students' understanding of textile terminology and/or proficiency in the consumer buying of textiles. None of these studies was made on a comparison basis.

This study was planned for the purpose of comparing the fabric selection practices of homemakers college-trained in home economics with homemakers not having college training in home economics. The writer was interested to learn how the two groups of homemakers compared in their acquaintance with some available

fabrics, their knowledge of contemporary textile terminology, and the practices they followed when helpful information on labels was not present. It is probable that a study of this type would be of value to those who teach textile courses to ascertain some of the strengths and weaknesses of the courses offered. The findings could be used as a basis for determining course content for persons engaged in high school, adult education, or extension classes. The results, perchance, could be brought to the attention of manufacturers and retailers, thus emphasizing to them the need for informative labeling.

A questionnaire was developed to compare the fabric selection practices of college-trained homemakers with homemakers having no college training in home economics. This was designed to obtain the following information:

1. The homemakers' knowledge of commonly used fabrics and the appropriate uses of them.
2. The homemakers' understanding of certain finishing terms.
3. The homemakers' acquaintance with certain man-made fibers.
4. The factors that determine the homemakers' selection of fabrics when helpful information is limited or not available.
5. The homemakers' understanding of the relationship of the fabric grain to the printed design.

6. The homemakers' preference regarding the location of printed information.
7. The number of homemakers who sew for their families.
8. The ages of the homemakers in order to determine if this factor might influence the percentage of correct responses.

METHOD OF PROCEDURE

Construction of the Preliminary Questionnaire

In order to determine the practices of homemakers in the selection of fabrics, a questionnaire was developed by the writer. Questions were formulated based upon the information given in Grace Denney's book, Fabrics (2), the book Textiles (5) by Norma Hollen and Jane Sadler, and a list of terms compiled by Gwendolyn L. Mitchell (10, p. 15).

The preliminary questionnaire was presented for evaluation to three graduate students in clothing and textiles, one graduate student in foods and nutrition, one staff member in clothing and textiles, and one statistician. On the basis of their suggestions, the questionnaire was revised and sent to a P. E. O. chapter in Corvallis for a trial run. The membership in this group is composed of home economists and those having no home economics training. Their ages range from thirty to sixty-five years. A few revisions were made, and the questionnaire was prepared in its final form and mailed, with an accompanying letter, to the women chosen for the sampling (Appendix A).

Selection of the Sample

Organized home economics groups in Portland, Seattle and Tacoma were asked to cooperate in this study. By asking these groups, the writer felt that she would be more apt to get a higher percentage of returns than if individual letters and questionnaires were sent to them. These groups were chosen because they probably would have a broader background of training. That is to say, it is not likely that all of these women would have had the same training, as would have been the case if alumni from one school had been sampled.

The selection of homemakers having no college training in home economics was determined by means of a random sampling taken from the city directories of Portland, Seattle, and Tacoma.

Number of Questionnaires Returned

One hundred and sixty-five questionnaires were sent to home economics groups in Portland, Seattle, and Tacoma, the number being determined by the membership in those groups. One hundred and eighteen questionnaires, or 71.5 per cent, were returned. These completed returns are the basis for one-half of this study.

Three hundred and forty questionnaires were mailed

to homemakers without college training in home economics. Two weeks later postal cards were sent to each homemaker as a reminder (Appendix B). The total number of questionnaires returned from this group was 126, or 37 per cent. Sixteen were returned undelivered and four were returned unanswered. The first 118 completed questionnaires are the basis for the second half of this study.

Analysis of the Questionnaire

Each question was tested individually by means of the chi-squared test, to determine if there were significant differences between the two groups. The test of significance is based upon the five per cent level. The number of persons answering each question is reported in percentages, which are calculated on the basis of the 118 individuals who responded. The questionnaire was designed to classify the findings in several divisions. The data were arranged and analyzed according to each division. In each table, the letter "H" is used to designate home economists; the letter "N" designates homemakers not having home economics training in college.

REVIEW OF LITERATURE

It may be said that the dilemma confronting textile-consumers today began in 1889 with the advent of rayon into the textile industry (5, p. 28). From that day to the present there has been continuous research and development of man-made fibers. These fibers were not intended to replace the natural fibers, but they did find a place for themselves in the textile world (20, p. 31). The use of man-made fibers has gradually increased until they rank second to cotton in fiber consumption (7, p. 13). In 1949 synthetics made up 20 per cent of the total fiber consumption, but in 1957 the percentage climbed to 26.5, according to a study made by the Textiles Economics Bureau (9, p. 8). Francis W. White, president of the American Woolen Company, predicts that by 1960 all men's summer suits will be made of synthetic fibers (18, p. 19). "By 1975 man-made textile fibers are expected to account for as much as 60 per cent of all textiles used in the United States, at least" (1, p. 43).

Man-made fibers have overcome some of the drawbacks of the natural fibers. Cotton and linen are strong, but they possess little elasticity or resiliency; wool has elasticity but it is relatively weak; silk, available in smaller amounts than the other

three natural fibers, is very strong, and it possesses an intermediate amount of elasticity. Many of the synthetics retain their shape, have dimensional stability, are light weight, are mildew and moth proof, and launder easily. Because they require less handling than the natural fibers, the homemakers' tasks are eased. The minimum amount of care required by the synthetics has challenged producers to improve fabrics made of natural fibers. The application of a vast number of finishes to the natural fibers is a result of this competition.

Not only is there competition between the manufacturers of textiles made from natural and synthetic fibers, but the synthetic industry within itself is highly competitive (6, p. 101). At one time the name of du Pont stood alone in the synthetic textile industry. This company synthesized nylon and put it on the market in 1940 (5, p. 60). Since then they have developed other fibers such as Dacron, a fiber that has outstanding properties of crease resistance and press retention when wet or dry (5, p. 66). Recently three large companies announced that they have developed fibers that will compete with Dacron. Tennessee Eastman has started commercial production of Kodol, a fiber suitable for men's summer suits and slacks. The North American Rayon Corporation plans to market Narene. The Celanese

Corporation of America will introduce Teron, a "Dacron-like fiber" in 1961 when du Pont's exclusive patent rights expire (6, p. 101). The list of man-made fibers continues to grow. An article in Time Magazine reports that textile and chemical personnel introduced "more than a dozen" new synthetics last season. "The new idea is to bring out improved synthetics every year in a campaign of planned obsolescence" (11, p. 100). Meanwhile, information regarding the use and care of new fabrics slowly filters to the consumer through the medium of advertising and a few consumer-education programs.

In 1943 a survey revealed that over five hundred trade names were used on cotton alone (3, p. 158). According to the Journal of Home Economics, 578 textile-finishes were listed in an annual summary featuring textile finishes (8, p. 419). Many of these finishes are suitable for more than one fiber. They also claim to give more than one simultaneous beneficial effect to the fiber. Therefore, it would be possible to have a trade-name, the names of several different fibers, and several finishes on one label. If the definitions of these terms are not given, the consumer has reasons for becoming confused. Labels should be available, bearing definite, concise, and reliable information.

Cotton dominates the textile scene in the

United States with almost four out of every five yards of broadwoven goods made in 1957 woven of cotton. This amounts to 66 per cent of the total fiber consumption in pounds, or 79 per cent of the total broadwoven goods produced (7, p. 12). The development of wash-and-wear finishes created to meet the competition of the synthetic industry is probably one of the most important recent changes in the textile industry. In 1957, 20 per cent of the cotton fabrics produced were treated for wash-and-wear, according to the United States Department of Agriculture (7, p. 19). Most of the Dan River cottons are now drip-dry and wrinkle-free, indicating that they have a wash-and-wear finish brought about by a resin-treatment (11, p. 100).

There is much confusion in the use of the term "wash-and-wear". The work-saving implication of the term is attractive to the busy homemaker. The term was first used to indicate that a garment could be washed, dried and worn without ironing. This term was not acceptable, partly because people have various standards regarding the appearance of the laundered garment. As some people demand more perfection than others, they do some ironing to remove any wrinkles that occur in laundering. At the 1957 Chemical Finishing Conference, George Wham of Good Housekeeping Magazine stated

". . . Consumers like wash-and-wear, but 88 per cent report hand ironing is necessary" (21, p. 210). At the same conference G. W. Murphy of Cluett, Peabody, and Company, made the statement that ". . . Wild claims are doing the business harm because the garments are not truly wash-and-wear. Consumers like the idea of reduced ironing required, but producers should be strictly honest in advertising and should improve performance" (21, p. 210). The ultimate goal is to develop a finish that will give an immaculately laundered and pressed appearance when it comes from the automatic washer and dryer. Some manufacturers use the phrase "little or no ironing" to qualify the term (12, p. 28).

Of the natural fibers, wool has felt the greatest impact of man-made fibers. This may be due to several reasons:

1. The trend toward lighter weight garments has reduced the amount of wool used in clothing.
2. The wool industry has been rather conservative in its attitude toward research.
3. Synthetics are challenging wool's dominance in the coat and suit industry. The properties of dimensional stability, shape retention, and ease of laundering possessed by synthetics, plus the demand for minimum-care fabrics, gives them an advantage in the competition (7, p. 14).

The Wool Products Labeling Act of 1939, which became effective in July 1941, requires that the kind or kinds of wool in a fabric be listed in the order of the quantities present in the fabric, but it does not tell the consumer the performance she can expect (8, p. 421).

One of the recent trends in textile manufacturing is the blending of two or more fibers in one fabric. Blending combines the individual strong points of the various fibers. The fabric acquires the dominant character of the largest quantity of fiber, modified by the desirable addition of other fibers. It has been predicted that by 1960, 45 per cent of all woolen and worsted fabrics will include blends of synthetic fibers (18, p. 20). Fabrics that have a high percentage of synthetic fibers have a woven-in performance that is more permanent than the performance of finishes that are applied to fabrics.

Consumers are concerned with the performance of whatever they purchase. The housewife buying fabrics is no exception. She needs and wants to know the fiber content of the fabric, the proper care to give it, its wearing qualities, if it wrinkles, or if it will fade under various circumstances. In short, she is concerned with the practical performance of the fabric she purchases. The performance of a fabric depends upon the complex interaction of five factors: (1) the fiber

used, (2) the construction of the fabric, (3) the finish that has been applied to the fabric, (4) the way the fabric is used, and (5) the care given it (17, p. 118). Information on the care and use of the natural fibers has been handed down from generation to generation but the textile finishes and the man-made fibers are so new that the homemaker is generally unfamiliar with their care.

The Textile Fiber Products Identification Act, which will become effective in March 1960, requires the identification of the constituent fiber or the combination of fibers in a textile fiber product. The law specifies that a fiber must be identified if its weight is five per cent or more of the total fiber weight, and that each fiber must be listed, with equal prominence, in the order of its predominance by weight (16, p. 116). Consumers should benefit by this law. If, in addition, manufacturers were required to indicate the performance, there would be a substantial increase in the benefits derived. Industry is somewhat aware that the performance of finishes and synthetics needs to be standardized. Harley Jennings, Dan River Mills, reported, "Standards of performance that mean something to the consumer are necessary. Erratic performance is confusing the consumer at present" (21, p. 124). If a label is attached to a fabric, it frequently has terms printed on it that

amount to little more than a combination of adjectives. It is necessary that industry provide more information for the consumers so that they may receive greater satisfaction.

As the competition between the producers of man-made fibers and natural fibers continues, a greater variety of materials is made available to the consumer. The problem becomes more complex because information regarding these developments is scarce.

Very little information seems to be available regarding the fabric selection practices of homemakers. Theses, books, articles, and bulletins were reviewed; those giving the most pertinent information were included.

ANALYSIS OF THE DATA

The Homemakers' Knowledge of Commonly Used Fabrics and
the Appropriate Uses of Them

The intelligent choice of a suitable fabric for a particular purpose indicates that the consumer understands the inherent characteristics of that textile material. She knows what service she can expect of it and how to care for it. The majority of the fabrics named in this part of the questionnaire are those that have been in common usage for a long time, and which are considered to be more or less staple. This series of questions was placed near the beginning so that the participants would recognize familiar terminology, thereby lessening the chance that they would be discouraged when they first glanced at the questions. Such discouragement would have had a direct bearing upon the number of questionnaires returned. Question II (Table I) was designed to determine the appropriate choice of fabric for a given purpose.

Discussion of Table I

In item 1, there is a noticeable agreement between the two groups in their selection of the blend containing 55 per cent wool and 45 per cent Orlon for a pleated skirt. This blend was chosen by 74 per cent of

TABLE I

Percentage of Responses to Questions on the Selection
of Fabrics Suitable for Simple Garments
(Question II)

Garments	Train- ing	Percentage of women who chose each fabric			
		80% wool, 20% Orlon	55% wool, 45% Orlon	90% cotton, 10% nylon	No re- sponse
1. Pleated skirt	H*	21.0	<u>74.0</u> ^f	1.0	4.0
	N**	20.0	<u>70.0</u>	5.0	5.0
2. Washable brunch- coat		Linene	Glazed chintz	Pique	No re- sponse
	H	10.0	<u>34.0</u>	52.0	4.0
	N	12.0	<u>42.0</u>	40.0	6.0
3. Smooth, durable lining for a child's coat		Percale	Taffeta	Cotton sateen	No re- sponse
	H	4.0	12.0	<u>83.0</u>	1.0
	N	1.0	14.0	<u>82.0</u>	3.0
4. Interfacing for a pique collar and cuff set		Pellon	Batiste	Crin- oline	No re- sponse
	H	36.0	<u>48.0</u>	14.0	2.0
	N	40.0	<u>34.0</u>	22.0	4.0

* Home economists.

** Homemakers not having home economics training.

^f Underlining indicates the correct answer.

TABLE I - Continued

Garments	Train- ing	Percentage of women who chose each fabric			
		Hair cloth	Taffeta	Muslin	No re- sponse
5. Interfacing for a wool coat	H	70.0	2.0	26.0	2.0
	N	<u>46.0</u>	8.0	44.0	2.0
6. Dainty, soft sheer blouse	H	Dotted swiss 8.0	Organdy 6.0	Voile <u>86.0</u>	No re- sponse 0.0
	N	11.0	12.0	<u>76.0</u>	1.0
7. Infant's dress	H	Lawn <u>97.0</u>	Shantung 0.0	Organdy 2.0	No re- sponse 1.0
	N	<u>80.0</u>	2.0	18.0	0.0
8. Washable shorts for a gym class	H	Chambray 2.0	Sail- cloth <u>95.0</u>	Serge 2.0	No re- sponse 1.0
	N	8.0	<u>89.0</u>	2.0	1.0
9. Winter coat for a cold climate	H	Wool challis 1.0	Wool poplin 4.0	Wool fleece <u>94.0</u>	No re- sponse 1.0
	N	6.0	8.0	<u>84.0</u>	2.0
10. Sleepwear for summer	H	Cotton covert 2.0	Plisse crepe <u>98.0</u>	Indian head 0.0	No re- sponse 0.0
	N	8.0	<u>91.0</u>	0.0	1.0
11. Sleepwear for winter	H	Cotton covert 0.0	Nain- sook 1.0	Flannel- ette <u>99.0</u>	No re- sponse 0.0
	N	0.0	1.0	<u>99.0</u>	0.0

the H-group and 70 per cent of the N-group. A possible reason for this choice is the highly advertised ready-to-wear pleated skirt made of fabric containing this percentage of fibers. Approximately one-fifth of each group chose the 80 per cent wool, 20 per cent Orlon blend. This choice indicates that knowledge is lacking concerning the crease retention properties of this percentage of blending and of the properties of wool.

The author selected glazed chintz, item 2, as the most suitable fabric for a brunch-coat, chiefly because it is resistant to wrinkles and spots, is durable to laundering, and is easily ironed. However, only 34 per cent of the H-group chose glazed chintz, while 52 per cent of them chose pique. Pique may be more versatile in its uses, but it is more difficult to maintain. The N-group was more evenly divided in its selection, with 42 per cent choosing chintz and 40 per cent choosing pique. The relatively high choice of pique by both groups may be due to a dislike for glazed chintz. Before the durable glazed finishes were developed, many homemakers were dissatisfied with chintz because it lost its luster and stiffness when laundered. Linene, a name which suggests a linen fabric, was chosen by 10 per cent of the H-group and 12 per cent of the N-group.

There was little question in the minds of both

groups of women regarding an appropriate lining for a child's coat, item 3. Cotton sateen was the choice of 83 per cent of the H-group and of 82 per cent of the N-group. Taffeta is not as durable as cotton sateen; it does not launder well; and it does not have the feeling of warmth; however, because it is a smooth fabric it enables the child to put on his coat more easily.

The selection of an appropriate interfacing is vital to the good appearance of a garment, item 4. Interfacings are used in clothing construction to help the garments retain their shape, to pad the seams, and to add strength. Many fabrics can be used for this purpose, but they must not shrink or stretch, nor be heavier than the fabric they interface. Because batiste is lighter in weight than pique, it is the most suitable interfacing of the three suggested fabrics in item four. The H-group was significantly higher in its selection of batiste than the contrastive group; however, only 48 per cent of the H-group selected it. It is probable that the homemakers associated batiste with infants' clothing and had not considered it for any other purpose.

It is particularly interesting to observe the choice of Pellon for an interfacing by both groups. Pellon, a non-woven or bonded-fiber fabric, "is said to have elasticity in all directions; and is economical

since it has no warp or filling, so it stretches equally in all directions and grain does not need to be considered in cutting out the interfacing" (5, p. 146). The fabric is available in several weights, but none are suitable for the problem presented here. The relatively high percentage of those selecting Pellon, 36 per cent of the H-group and 40 per cent of the N-group, may be explained by the extensive advertising program which promotes this product. Crinoline, which is not satisfactory because it is too stiff for ordinary usage and because it loses its stiffness when laundered, was chosen by 14 per cent of the H-group and 22 per cent of the N-group. It is difficult to comprehend this selection of crinoline because of the current popularity of crinoline petticoats. It would seem likely that a majority of homemakers would have experienced, or known someone who had experienced the problems that arise when laundering or sewing crinoline.

The H-group was significantly higher in its choice of hair cloth, item 5, for a coat interfacing; 70 per cent of them chose this fabric as compared with 46 per cent of the N-group. It is quite evident that the N-group is not well acquainted with hair cloth. It is probable that if a trade-name had been used there would have been a greater percentage of the H-group selecting hair cloth because many home economists have had tailoring classes

in college and probably know the fabric by a trade name. There was a significant difference between the two groups in their choice of muslin, with 26 per cent of the H-group and 44 per cent of the N-group making it their selection. A reason for the choice of muslin is that patterns sometimes recommend it for interfacing purposes. Muslin might be suitable if it were washed free of starch, resulting in complete shrinkage.

Both groups of homemakers, by a large majority, chose voile, item 6, as the most suitable fabric for a dainty, soft, and sheer blouse. There was no significant difference between the responses of the two groups. Dotted swiss, the choice of 8 per cent of the H-group and 11 per cent of the N-group, does not qualify for the stipulation of a soft fabric, neither does organdy. However, blouses are sometimes made of these two fabrics.

The percentage of women in the H-group who chose lawn for the infant's dress, item 7, was significantly large, with 97 per cent choosing this fabric. As compared to the H-group, a significant number of the N-group incorrectly chose organdy as a suitable fabric. There may be occasions when an organdy dress would be chosen for a toddler, but it is inappropriate for an infant's dress. It is possible that the women were not familiar with lawn and for that reason chose organdy.

In item 8, a high percentage of both groups chose sailcloth; 95 per cent of the H-group and 89 per cent of the N-group made this selection. This fabric is used for many active sportswear garments because it is firmly woven and is comparatively lightweight. The insignificant number who chose serge may have been older women who wore serge bloomers for physical education classes when they were in school.

Even though relatively high percentages of both groups chose wool fleece for a winter coat, item 9, there was a significant difference in their selection. The difference between the total of 94 per cent of the H-group and 84 per cent of the N-group indicates a better understanding of the fabrics by the former group. Wool challis, ideal for dresses, and wool poplin, of which dresses and suits may be made, were chosen by a total of 14 per cent of the N-group. This is statistically insignificant, but it intimates that the N-group may not be acquainted with these two fabrics.

The two groups did not differ significantly in their choice of plisse crepe for summer sleepwear, item 10. The percentage of both groups choosing this fabric was significantly high; 98 per cent of the H-group and 91 per cent of the N-group made it their choice. This suggests a wide acquaintance with this staple fabric.

Cotton covert, the choice of 2 per cent of the H-group and 8 per cent of the N-group, is unsuitable for this particular garment. It is used for uniforms, shirts, and some children's wear. Although the number choosing covert cloth is insignificant, it may indicate that there is a lack of understanding regarding this fabric.

Of the thirty textile fabrics listed in question II, flannelette, item 11, was the fabric with which the greatest majority were acquainted. A significantly large number of 99 per cent of both groups chose this fabric for winter sleepwear. The remaining insignificant number of 1 per cent may have been those people who dislike flannelette and for whom nainsook was the only other possible choice.

The H-group displayed a better understanding of the fabrics than the N-group, even though the former had only four correct responses (items 4, 5, 7, and 9) that were significantly larger than the latter. Of the eleven items in this question, the H-group answered nine with a majority of correct responses. However, only five (items 7, 8, 9, 10, and 11) of these nine items were answered correctly by 90 per cent or more of this group. In eight of the nine items mentioned above (items 1, 2, 3, 6, 8, 9, 10, and 11), the answers of the N-group came within 10 per cent or less of the scores of the

H-group. None of these differed significantly, indicating the two groups compare quite favorably in their knowledge of suitable uses for those eight fabrics. The N-group scored above 90 per cent in two, items 10 and 11, of the eleven items.

In comparing the results of this question, we can conclude that the women with home economics training have a somewhat broader knowledge of fabrics and appropriate uses of them. We can also conclude that they are not as well acquainted with these fabrics as one would expect women with their training to be.

The Homemakers' Understanding of Certain Finishing Terms

Many finishes are applied to fabrics to improve and/or change their inherent qualities. Some of these finishes have names that partially reveal their meanings; others give no indication of the idea to be conveyed. The questions that were designed to determine if the homemakers are acquainted with finishing terms are: question I (Table II), question IV (Table III), and question V (Table IV).

Discussion of Table II

The selection of a fabric that will retain its color throughout the life of the garment requires the

careful attention of the consumer. Light, humidity, perspiration, gas fumes, and laundering processes are the chief factors responsible for the fading of color (4, p. 117). Such terms as colorfast and guaranteed have a misleading connotation. Colorfast does not indicate to which of the above factors, or factor, a dye is resistant; nor does the word guaranteed give any assurance of the permanence of the color. Vat dyes are regarded as being relatively durable to laundering (5, p. 180).

In item 1, the responses of the two groups questioned differed significantly in the interpretation of the terms vat-dyed and guaranteed. Vat-dyed was chosen by 78 per cent of the H-group and 55 per cent of the N-group. The number of the N-group choosing guaranteed was significantly larger than that of the H-group. Staz-nu, a trademark for a crease and soil resistant finish, was not chosen by either group. It was surprising to the writer that 20 per cent of the women college-trained in home economics chose the word guaranteed.

Until recently most cotton fabrics had to be shrunk at home before they could be used. Each of the three terms used in item 2 is related to the shrinkage of cotton. Preshrunk indicates a fabric has undergone a pre-shrinking process, but it does not tell if any further shrinkage will occur (2, p. 153). If a fabric is

TABLE II

Percentage of Responses to Questions on Finishing Terms
(Question I)

Stated Problem	Train- ing	Percentage of women selecting terms related to finishes			
		Vat-dyed	Guar-anteed	Staz-nu	No re-sponse
1. Housedress color-fast to washing	H*	<u>78.0</u> /	20.0	0.0	2.0
	N**	<u>55.0</u>	43.0	2.0	0.0
2. Shrinkage control for cotton	H	30.0	<u>70.0</u>	0.0	0.0
	N	48.0	<u>49.0</u>	0.0	3.0
3. Shrinkage control for wool	H	20.0	Re-laxed 13.0	Sponged <u>64.0</u>	3.0
	N	64.0	5.0	<u>28.0</u>	3.0
4. A fabric that is resistant to wetting	H	2.0	Water-repellent <u>86.0</u>	Either one 12.0	0.0
	N	7.0	<u>64.0</u>	28.0	1.0

* Home economists.

** Homemakers not having home economics training.

/ Underlining indicates the correct answer.

labeled Sanforized, the residual shrinkage should not exceed one per cent (2, p. 159). The term Shrinketized, found on some labels, is undefined and therefore has little meaning.

A significantly larger percentage of the H-group chose Sanforized as compared with the N-group. The significantly higher percentage of the N-group who chose preshrunk indicates their lack of understanding of shrinkage terms. It is difficult to understand why a larger percentage of women in both groups did not choose Sanforized. Since this term has had much publicity via clever advertising in women's magazines, it was anticipated that the N-group especially would have had a better acquaintance with the term than was indicated in the results. Because this finish, developed in 1930, is one of the older finishes in use, it was expected that more of the H-group would have known the meaning of the term (15, p. 2194).

Item 3 dealt with the shrinkage of wool. The term sized means that a finish has been applied to add body, stiffness, or smoothness to a fabric (5, p. 157). Relaxed signifies the return to normal size of fabrics that were stretched during weaving (5, p. 169). If a wool fabric has been sponged it is generally considered ready for tailoring (2, p. 164).

The percentage of the N-group who chose the incorrect term, sized, was significantly higher than the percentage of the H-group who chose that term. The percentage of the H-group who chose the correct term, sponged, was significantly higher than that of the contrasting group. A total of 64 per cent of the H-group chose the correct term as compared to 28 per cent of the N-group, indicating that the N-group does not have a clear understanding of the three terms listed in this question. Approximately one-third of the H-group does not know the meaning of the terms, which in itself is difficult to comprehend because all three are terms that would have been included in an average textiles course.

The problem in item 4 concerns water-resistant cotton. A water-proof fabric will not allow water to penetrate. A water-repellent fabric is resistant to wetting, but permits the free passage of air (5, p. 173). Because the general public is apt to confuse the two terms, "either one" was given as one of the choices for the problem to see if this could be the case.

The percentage of the H-group choosing the correct term, water-repellent, was significantly greater than that of the N-group. A negligible percentage of each group chose water-proof. The N-group was significantly higher in its choice of the alternate term

either one. From this it may be said that the H-group has a relatively good understanding, but the N-group tends to be confused by the terms.

The Homemakers' Understanding of Trade-Marks and Finishing Terms

Labels frequently bear trade-marks and/or the names of finishes, the meanings of which may not be understood by the consumer because the words are not clearly defined. In order to determine if women knew what these undefined words meant, a question was devised that dealt primarily with fifteen commonly used trade-marks and finishing terms. The definitions of these finishes may be divided into six categories: (1) color, (2) wrinkle-resistance, (3) surface-change, (4) shrinkage, (5) starchless, and (6) repellency. Question IV (Table III) was designed to determine the acquaintance of homemakers with these terms and their meanings.

Discussion of Table III

The scores of both groups were low in this question. The H-group had a score of 25 per cent or less in nine out of fifteen items. The N-group had a score of 25 per cent or less in eleven out of fifteen items. Only three terms were answered correctly by more than

TABLE III

Percentage of Responses to Questions
on Trade-marks and Finishing Terms
(Question IV)

Name of Trade-mark or Term	Train- ing	Correct response	Incorrect response	No response
1. Fast colors (Color finish) †	H*	66.0	0.0	34.0
	N**	76.0	0.0	24.0
2. Superset (Wrinkle-resistant)	H	12.0	20.0	68.0
	N	7.0	17.0	76.0
3. Vita-last (Surface-change)	H	4.0	8.0	88.0
	N	1.0	11.0	88.0
4. Embossed (Surface-change)	H	78.0	6.0	16.0
	N	50.0	10.0	40.0
5. Sanitized	H	13.0	15.0	72.0
	N	11.0	25.0	64.0
6. Polished cotton (Surface-change)	H	47.0	23.0	30.0
	N	24.0	36.0	40.0
7. Sag-no-mor (Shrinkage)	H	11.0	24.0	65.0
	N	8.0	14.0	78.0
8. Perma-pressed (Wrinkle-resistant)	H	46.0	8.0	46.0
	N	52.0	6.0	42.0
9. Regulated (Wrinkle-resistant)	H	44.0	15.0	41.0
	N	20.0	5.0	75.0

* Home economists.

** Homemakers not having home economics training.

† Words in parentheses denote correct answer

TABLE III - Continued

Name of Trade-mark or Term	Train- ing	Correct response	Incorrect response	No response
10. Bellmanize (Starchless finish)	H	15.0	14.0	71.0
	N	0.0	4.0	96.0
11. Sanforize (Shrinkage)	H	87.0	3.0	10.0
	N	78.0	1.0	21.0
12. Staze-rite (Starchless finish)	H	9.0	21.0	70.0
	N	5.0	14.0	81.0
13. Tebilized (Wrinkle-resistant)	H	21.0	23.0	56.0
	N	8.0	5.0	87.0
14. Unidure (Wrinkle-resistant)	H	4.0	10.0	86.0
	N	4.0	2.0	94.0
15. Everglaze (Starchless finish)	H	24.0	42.0	34.0
	N	22.0	30.0	48.0

fifty per cent of both groups. The meaning of Sanforize, item 11, was known by 87 per cent of the H-group and 78 per cent of the N-group. The difference is not statistically significant regarding fast colors, item 1, but the percentage of correct answers given by the N-group exceeds the other group by ten. The third term, having 50 per cent or more responses by both groups, was embossed, item 4, which had a higher percentage of correct answers given by the H-group.

The results of this question suggest that neither group had an adequate understanding of the meanings of these undefined terms and trade-marks.

Discussion of Table IV

Even though the term colorfast, item 1, may be better than no term at all, it does not inform the consumer concerning the factor to which a dye is fast or durable. A majority of both groups indicated an erroneous conception of this term that is frequently found on labels. Of the two groups sampled, a significantly greater percentage of correct responses was made by the home economists, but this was only 42 per cent. These results indicate that consumers tend to be confused regarding the meaning of this term.

TABLE IV
Percentage of Agreement with
Statements Regarding Finishing Terms
(Question V)

Stated Problem	Train- ing	Correct response	Incorrect response	No response
1. The color may fade when a fabric is labeled "Color-fast". (Yes) /	H*	42.0	54.0	4.0
	N**	14.0	78.0	8.0
2. The term "sizing" means that cotton so treated will not shrink. (No)	H	93.0	4.0	3.0
	N	75.0	18.0	7.0
3. Unweighted silk may be labeled "Pure Dye Silk". (Yes)	H	70.0	19.0	11.0
	N	39.0	27.0	34.0
4. "Crease resistant" means that cotton so treated will not crush or wrinkle. (No)	H	52.0	44.0	4.0
	N	36.0	59.0	5.0
5. Mercerization adds strength and luster to cotton. (Yes)	H	90.0	8.0	2.0
	N	68.0	14.0	18.0
6. Fabrics treated for crease recovery require minimum care. (Yes)	H	90.0	4.0	6.0
	N	86.0	5.0	9.0

* Home economists.

** Homemakers not having home economics training.

/ Word in parentheses denotes correct answer.

TABLE IV - Continued

Stated Problem	Train- ing	Correct response	Incorrect response	No response
7. "Permanent pleats" means that pleats will remain for the life of the garment. (Yes)	H	31.0	65.0	4.0
	N	20.0	72.0	8.0
8. Cotton is the only fiber that is treated for crease resistance. (No)	H	86.0	7.0	7.0
	N	76.0	10.0	14.0
9. The design in resin- treated embossed cotton is durable. (Yes)	H	33.0	48.0	19.0
	N	36.0	25.0	39.0
10. Drip-dry cottons can be straightened by pulling them into shape. (No)	H	56.0	41.0	3.0
	N	30.0	61.0	9.0

In item 2, a majority of both groups responded correctly regarding the term sizing, the H-group being significantly higher. In comparing this result with question II (Table II), a discrepancy was found in the N-group. This is evidenced by the 64 per cent who were in error in selecting the word sized as the correct term for shrinkage control for wool and by the 75 per cent who answered correctly that sizing is not a shrinkage control term for cotton. The contradiction expressed by the N-group in the foregoing questions indicates that the meaning of the term sized is not generally understood. Homemakers may be better acquainted with cotton than they are with wool, and for that reason may have known that sizing is not a shrinkage control term associated with cotton.

There was a significant difference between the two groups in their responses to item 3, Pure Dye Silk. Silk goods with not more than ten per cent of any substance other than silk, 15 per cent for black may be labeled "Pure Dye Silk" (2, p. 154). It was to be expected that people who had taken a course in Textiles would have an improved understanding, but with the present prevalence of silk fabrics on the market the writer decided to compare the two groups to learn if those women who had not had this training had acquired knowledge about the weighting of silk. The small percentage of the N-group

who responded correctly indicates that they had not.

A fabric that has been treated for crease resistance will generally withstand the bending or flexing that produces wrinkles. These treated fabrics are frequently stiff and inflexible, but once they are bent they will remain in that condition (5, p. 167). In comparing the two groups in item 4, the H-group was significantly higher, although only 52 per cent responded correctly. The responses of both groups regarding crease resistance supply conclusive evidence that a high proportion of women did not have an understanding of that finish.

The training of the H-group was evident in their acquaintance with mercerization, item 5. Ninety per cent of the home economists answered correctly, a significantly higher percentage as compared to the other group. The somewhat low score of the N-group may be associated with the belief that mercerized thread is weak.

There was no significant difference between the two groups in their high percentage of correct responses to item 6, crease recovery. In all probability, any term associated with the word "crease" indicates to the consumer that the fabric will be easy to maintain.

The response to item 7 indicated a misconception regarding permanent pleats. There was no statistical difference, both groups gave a low percentage of correct

responses. Instead of "permanent", the Federal Trade Commission prefers the term "durable" (2, p. 198).

In item 8, there was no significant difference in the responses between the two groups regarding crease resistance. The relatively high scores may be due to the fact that linen and rayon fabrics are frequently advertised as being wrinkle or crease resistant. The use of the word "only" may have made the correct answer obvious, thus influencing the relatively high percentage of correct answers.

The stores in recent years have had attractive cottons, the surfaces of which have raised and depressed places. These are said to be embossed, a finish that is relatively durable when the fabric is resin-treated. In item 9, the low scores of both groups may be due to the inclusion of the words "resin-treated" in the statement. Consumers are not generally acquainted with these words because they are seldom used on labels or in advertising.

In item 10, the problem regarding the straightening of drip-dry cottons was presented. Before cottons were resin-treated, resulting in drip-dry fabrics, they could be straightened by pulling them into shape. Unless care is taken to maintain the grain during the resin-treatment, the right angle formed by the yarns during the weaving process may be changed. The grain

line cannot be straightened because the resin-treatment has a tendency to set it. Neither group displayed an understanding of the problem presented in item ten. Fifty-six per cent of the H-group gave correct responses, a significantly larger percentage than from the N-group.

The Homemakers' Understanding of the Relationship between the Grain Line and the Design

On either the pattern pieces or in the instruction sheets that accompany commercial patterns, are given directions that indicate the grain line upon which a pattern piece is to be placed. The lengthwise grain, sometimes referred to as the straight of the material or goods, coincides with the warp yarns. Likewise, the crosswise grain corresponds to the filling yarns.

If the grain line has been carefully considered when cutting a garment, the finished product will hang better and retain its shape more satisfactorily than a garment which was cut ignoring the grain line. It is not uncommon for the home-sewer to straighten a fabric to re-establish the grain line which has been altered during the manufacturing process. During the printing process some manufacturers are not careful to print plaids and stripes on the lengthwise or crosswise grains.

Inattention to this matter presents a problem to the

consumer when she cuts printed plaid or striped fabric. Should she cut the fabric on the grain line or should she follow the printed lines of the design? From the standpoint of appearance, the problem is not as great with printed all-over or random prints because there is not apt to be a definite line for the eye to follow. Because of the importance of the grain line, it was desirable to determine whether or not the homemakers were aware of the problem. Question III (Table V) was used to disclose this information.

Discussion of Table V

Some women are not aware of the problems incurred when the printed design does not coincide with the grain line of the fabric. This situation is evidenced by the fact that 30 per cent of the N-group stated that they did not bother with the grain line, a significantly higher number than that of the H-group, item 1.

In comparing the two groups, a significantly larger percentage of the H-group indicated that they examined plaids or stripes, item 2, and/or random prints, item 3. Of the three items, the second one was checked as a practice by a significantly higher percentage of both groups, but only 50 per cent of the N-group

TABLE V
 Percentage of Responses Indicating Practices
 Regarding the Grain Line and Design
 (Question III)

Suggested Practice	Training	Indicated practice	No response
1. I never bother with the grain line.	H*	7.0	93.0
	N**	30.0	70.0
2. I examine plaids or stripes.	H	86.0	14.0
	N	50.0	50.0
3. I examine all-over (random) prints.	H	40.0	60.0
	N	22.0	78.0

* Home economists.

** Homemakers not having home economics training.

indicated that they examined plaids or stripes. Some women in both groups indicated that they examined both items 2 and 3.

By and large, the H-group appeared to have an understanding of the importance of the grain line, but in comparing this result with item 10 of question V (Table IV), one finds an inconsistency. The percentage of the H-group who examined plaids or stripes exceeded by thirty those of the same group who knew that drip-dry cottons usually cannot be pulled into shape. The deduction is that women do not have sufficient understanding of the grain line and problems relating to it.

The Selection of Fabrics by Homemakers When Printed Information Is Not Available

Much emphasis has always been placed upon the appeal of fabrics to the senses of sight and touch. Merchants are aware of this and often arrange their displays in order to give the consumers an opportunity to feel the fabrics. If printed information is not available, the customer must use other criteria upon which to base her selection. Question VI (Table VI) was designed to enable the homemakers to disclose some of the practices they follow in the selection of fabrics when helpful information is not available.

Discussion of Table VI

It is of interest to note that the practices that were followed by the highest percentage of both groups were those of examining the weave and feeling of the fabric, items 2 and 3. Approximately two-thirds of each group never selected a fabric because they liked only the color, design, or texture (items 7, 8, and 9). These responses suggest indirectly that the expected performance of the fabric is of importance to the consumer.

By combining the percentages of responses answering usually and sometimes, item 1, the results revealed that the N-group is significantly more dependent upon the salesperson for information than are the home economists. This combination of percentages also indicates that a majority of both groups examine the weave, feel of the fabric, rely upon the reputation of the store, and rely upon the trade name, items 2, 3, 4, and 5. The two groups did not differ significantly in their responses to these items.

Whereas the price of a fabric at one time may have been used as an indication of its quality, this study suggests that the consumers did not rely upon the price as a guide. In item 6, it is interesting to note that 48 per cent of the N-group never rely upon the price to indicate quality. A significantly higher percentage of

TABLE VI

Percentage of Responses Concerning the Selection of
Fabrics When Printed Information Is Not Available
(Question VI)

Suggested Practice	Train- ing	Response			
		Usu- ally	Some- times	Never	No re- sponse
1. Depend upon the sales- person for information	H*	17.0	60.0	12.0	11.0
	N**	26.0	58.0	6.0	10.0
2. Examine the weave and how closely it is woven	H	74.0	14.0	2.0	10.0
	N	66.0	22.0	2.0	10.0
3. Feel of the fabric to determine if it is desirable	H	75.0	14.0	3.0	8.0
	N	77.0	11.0	2.0	10.0
4. Rely upon the reputa- tion of the store for selling quality goods	H	30.0	47.0	14.0	9.0
	N	26.0	34.0	30.0	10.0
5. Rely upon the trade- name	H	36.0	48.0	6.0	10.0
	N	37.0	47.0	7.0	9.0
6. Rely upon the price to indicate quality	H	8.0	47.0	36.0	9.0
	N	8.0	32.0	48.0	12.0
7. Select it because you like the color, regard- less of any other characteristic	H	0.0	21.0	70.0	9.0
	N	3.0	15.0	73.0	9.0

* Home economists.

** Homemakers not having home economics training.

TABLE VI - Continued

Suggested Practice	Train- ing	Response			
		Usu- ally	Some- times	Never	No re- sponse
8. Select it because you like the design, regardless of any other characteristic	H	3.0	23.0	65.0	9.0
	N	5.0	15.0	70.0	10.0
9. Select it because you like the texture, regardless of any other characteristic	H	1.0	24.0	65.0	10.0
	N	4.0	16.0	70.0	10.0

the H-group sometimes relies upon the price than does the N-group. Both groups were significantly higher in designating that they sometimes, rather than usually, depend upon the price to indicate quality, with the H-group having the higher percentage.

The results of question VI suggest that the homemakers rely upon past experience, but they need additional assistance when purchasing fabrics.

The Homemakers' Acquaintance with Man-Made Fibers and Some of Their Properties

Differences in the characteristics of man-made fibers influence the manner in which the fabrics are handled. In order to determine the homemakers' acquaintance with some man-made fibers, question VII (Table VII) was developed using seven man-made fibers and a pertinent characteristic of each.

Discussion of Table VII

Acetate, item 1, requires care in pressing because it is sensitive to heat. Of the two groups, a significantly greater number of the H-group knew that the indicator for "rayon" on an electric iron is set for acetate, but only 53 per cent of the group answered correctly. A total of 67 per cent of the N-group either

answered it incorrectly or did not answer it.

In comparing the two groups in item 2, a significantly larger percentage of the H-group, 57 per cent, expressed knowledge of the strength of nylon. There was no significant difference between the two groups in item 3 regarding their knowledge that viscose and cotton may be ironed at the same temperature. By combining the percentages of incorrect responses and no responses, a large majority of both groups showed a lack of knowledge of viscose.

Lurex, item 4, is the trade-mark for a plastic film-coated aluminum foil that adds sparkle in woven and knitted fabrics (2, p. 142). It was correctly identified by 75 per cent of the H-group, a significantly higher correct response than from the N-group.

Of the two groups, the H-group made a significantly larger percentage of correct responses in item 5, Orlon. The percentage of the N-group responding incorrectly, or not responding at all, was significantly greater than the correct responses of that same group.

The percentage of correct responses by both groups regarding the synthetic Saran, item 6, seemed to indicate a wider knowledge of this synthetic than of any other item in this question. This result may be due to the fact that this product is widely advertised for household

TABLE VII

Percentage of Responses Concerning a
Characteristic of Certain Man-Made Fibers
(Question VII)

Statement	Train- ing	Correct response	Incorrect response	No re- sponse
1. The heat indicator on the electric iron is set for this fiber. (Acetate) /	H*	53.0	26.0	21.0
	N**	33.0	38.0	29.0
2. Noted for its great strength when wet or dry. (Nylon)	H	57.0	21.0	22.0
	N	41.0	31.0	28.0
3. Can be ironed at about the same temperature as cotton. (Viscose)	H	24.0	34.0	42.0
	N	11.0	32.0	57.0
4. Used for sparkle in woven and knitted fabrics. (Lurex)	H	75.0	6.0	19.0
	N	54.0	11.0	35.0
5. Widely used in fleece coats. (Orlon)	H	67.0	9.0	24.0
	N	35.0	31.0	34.0
6. Not generally used for clothing. (Saran)	H	78.0	2.0	20.0
	N	55.0	15.0	30.0
7. Frequently combined with cotton in batiste. (Dacron)	H	52.0	17.0	31.0
	N	35.0	24.0	41.0

* Home economists.

** Homemakers not having home economics training.

/ Word in parentheses denotes correct answer.

purposes, or that it is not generally known as a clothing fiber.

Dacron and cotton are frequently combined in batiste, giving the fabric the appearance and coolness of cotton, and the resistance to wrinkling of Dacron. Of the H-group, 52 per cent, item 7, expressed knowledge of this blend of fibers, a significantly higher percentage than that of the N-group.

In all but two of the items, Lurex, item 4, and Saran, item 6, the combined percentage of the incorrect responses and no responses of the N-group were significantly greater than the correct responses of that same group.

With the exception of item 3, viscose, the H-group made a significantly larger proportion of correct answers than the N-group. This section of the study reveals that the homemakers, especially those of the N-group, did not have an understanding of these common man-made fibers.

The Homemakers' Preferences Regarding the Location of Printed Information

If the manufacturers would inform the consumers of the performance of a fabric instead of printing meaningless phrases, and if the information were printed in a convenient, uniform place, it would facilitate shopping for both the consumers and the retailers. Question VIII

(Table VIII) allowed the homemakers to express themselves regarding the location of printed information.

Discussion of Table VIII

The preferences indicated by the two groups were of interest. The largest percentage of both groups preferred printed information on the selvedge, item 1. The least preferred location was on the end of the bolt, item 2, the place where available information is often found. Item 5, a leaflet, was the second choice of the H-group and the third choice of the N-group. The third choice of the H-group was item 4, a placard, which was the fourth choice of the N-group. A hang tag, item 3, was the second choice of the N-group and the fourth choice of the H-group. There were women in both groups who preferred a combination of two or more places giving information. From these expressions, the writer is inclined to think that the women in both groups prefer printed information that can be taken home.

The Percentage of Homemakers Who Sew for Their Families

Question IX was designed to determine if the homemakers' understanding of textiles and textile terminology was influenced by the amount of sewing they did. It seems credible that if women are actively engaged in sewing for their families they will acquire

TABLE VIII
 Percentage of Responses Indicating
 Preferred Location of Printed Information
 (Question VIII)

Suggested Location	Train- ing	Preferred location	No response
1. On the selvedge	H*	52.0	48.0
	N**	45.0	55.0
2. On the end of the bolt	H	30.0	70.0
	N	25.0	75.0
3. On a hang tag	H	38.0	62.0
	N	41.0	59.0
4. On a placard set on the counter above the fabrics	H	46.0	54.0
	N	36.0	64.0
5. On a leaflet you could take with you	H	50.0	50.0
	N	40.0	60.0

* Home economists.

** Homemakers not having home economics training.

knowledge regarding fabrics and the terminology associated with them. As compared to the responses of the H-group, 27 per cent, a significantly larger percentage of the N-group, 40 per cent, did not construct any garments during the past year. If these responses are reliable, they may indicate a reason for the seeming inability of both groups to recognize textile terminology.

The Number of Homemakers in Each Age Group

It was presumed that the ages of the homemakers would have a direct bearing upon the answers to the questions. If older women predominated in the sampling, one would expect a lower percentage of correct responses, partly because their sewing activity may have lessened, their training is less recent, and they may not have kept informed of recent developments. By the same token, the percentage of correct answers may be relatively high if younger women were predominant in the sampling. These women are busy clothing growing children. The contacts made with fabrics while shopping for the family's clothing may influence their knowledge of textiles. The ages of the women who participated in this study were learned by the results of question XI (Table IX).

Discussion of Table IX

The largest number of responses to the questionnaire came from the age bracket ranging from forty to forty-nine years. The women in the H-group who were in this age bracket have been out of college for at least fifteen years. The majority of the developments in man-made fibers and textile finishes occurred during this time. Therefore, it is understandable that this age group is not fully aware of the changes that have taken place. More women in the H-group were under forty years of age than in the contrasting group. Because the home economists probably attended college more recently, this circumstance would tend to influence the higher percentage of correct responses made by the H-group.

As compared to the H-group, there were more women in the N-group whose ages were fifty years or more. This may be a contributing factor toward the lower percentage of correct responses made by the N-group because the women of this age bracket may not come in contact with fabrics as much as the younger women who are clothing their families.

Table IX
The Number of Homemakers in
Each Age Bracket
(Question XI)

	Ages of Homemakers, years					No response
	20-29	30-39	40-49	50-59	60-69	
H-group*	14	34	42	14	6	8
N-group**	11	26	39	23	11	8

* Home economists.

** Homemakers not having home economics training.

SUMMARY AND RECOMMENDATIONS

The intelligent selection of fabrics for clothing is one of the most perplexing consumer problems that confronts the homemaker today. The many man-made fibers and finishes that have been developed within recent years present problems that were unheard of a generation ago. With each new development in the textile industry a new word or phrase is added to the textile terminology. Many of these words and phrases have little or no meaning to the consumer.

Because of the rapidity with which the textile scene is changing, this study was designed to determine whether or not the home economists, the H-group, are keeping informed of the trends in the textile field and if they, and the women not having this training, the N-group, understand some of the contemporary textile terminology that is found on labels. Also, due to the fact that labels are frequently inadequate or are not available, the writer attempted to learn the factors that influence a consumer's choice of fabric when these conditions exist. Even though it was presumed by the writer that the women who have had college training in home economics are more familiar with staple fabrics than the women who have not had such training, it was decided to compare

the two groups to determine if the latter group had acquired knowledge through the use and handling of such fabrics.

The writer has been unable to find studies that furnish data applicable to this study. Because a person's understanding of fabrics qualifies her to be a wise textile consumer, this study was planned to indicate, indirectly, the abilities of both groups to make wise textile purchases.

In order to determine the understanding of textiles possessed by these two groups of homemakers, a questionnaire was planned to ascertain the following information:

1. The homemakers' knowledge of commonly used fabrics and the appropriate uses of them.
2. The homemakers' understanding of certain finishing terms.
3. The homemakers' acquaintance with certain man-made fibers.
4. The factors that determine the homemakers' selection of fabrics when helpful information is limited or not available.
5. The homemakers' understanding of the relationship of the fabric grain line to the design.
6. The homemakers' preference regarding the location of printed information.
7. The number of homemakers who sew for their families.
8. The influence of the ages of the homemakers upon the percentage of correct responses.

The names of the fibers, fabrics, and finishing terms used in the questionnaire were based upon information given in Grace Denny's book, Fabrics (2), a list of terms compiled by Gwendolyn L. Mitchell in a master's thesis (10), and Textiles by Norma Hollen and Jane Sadler (5).

A total of 165 questionnaires was sent to home economics groups in Portland, Seattle, and Tacoma; the 118 completed returns were the basis for one-half of this study. Questionnaires and accompanying letters were sent to the 340 women whose names were chosen by means of a random sampling taken from the city directories of the previously mentioned cities. Follow-up postal cards were sent to each homemaker two weeks later. One hundred and twenty-six questionnaires were completed; of these, the first 118 returned were the basis for the other half of the study.

The questions were tested by means of the chi-square test to determine the significant difference between the two groups. The test of significance was based upon the 5 per cent level.

The home economics group had the greater understanding of the two groups regarding the staple fabrics and appropriate uses of them. However, this group had only four correct responses that were significantly

higher than the contrastive group.

Neither group indicated a broad understanding of the undefined trade-marks and finishing terms. The H-group demonstrated a greater knowledge of the terms. Only six of the thirty-seven terms used in this question were known by 80 per cent or more of this group.

The cutting of a garment on the grain line is one of the factors that affects the manner in which the garment hangs and fits. From the standpoint of appearance, it is necessary that printed designs with lines follow the grain of the fabric. The H-group indicated a better understanding of this relationship of the grain line to the printed design than did the N-group.

It is difficult to select a suitable fabric when labels are inadequate or are not available. When these conditions exist, the majority of both groups engaged in the practices of feeling the fabric and examining the weave. These practices indicate that the homemakers have had previous experience with fabrics and are relying upon this experience to assist them in making wise purchases. The results also disclosed that both groups were dependent upon the salespersons, with the N-group being significantly more dependent.

As compared to the N-group, the H-group expressed a significantly greater understanding of the man-made

fibers. Nevertheless, this understanding was somewhat limited. Saran was known by more women of both groups than any other fiber mentioned in this question.

Because manufacturers and retailers do not furnish information in a standard manner, the consumer may spend much time in searching for the location of such enlightenment. The majority of both groups preferred printed information on the selvedge. The least preferred location was on the end of the bolt where available information is often found. It seems that women preferred printed information that they could take home with them, instead of relying upon their memories.

It is very likely that women who are actively engaged in sewing for their families have acquired knowledge regarding fabrics and the related terminology. The relatively high percentage of women who did not construct any garments this past year probably was one of the reasons for the comparatively high number of incorrect responses to the questions asked. As compared to the H-group, a significantly higher percentage of the N-group did not sew for their families.

The largest number of responses to the questionnaire was made by the women in the age bracket of from forty to forty-nine years. There were more women who were under forty years of age in the H-group than in the other group.

In contrast, more women were over fifty years of age in the N-group than were in the H-group. The results, indicating that the N-group was not generally acquainted with the terms included in the questionnaire, may be partly due to the distribution of the ages.

The results of this study disclosed information that lead the writer to draw the following conclusions:

1. As was expected, the homemaker who had college training in home economics had a broader understanding of the staple fabrics and their appropriate uses than the homemaker who had not had formal training.
2. Both groups of homemakers had little knowledge of the meanings of trade-marks or finishing terms. The results seem to indicate that home economics training has not influenced the home economics group to keep abreast of fabric trends to the extent that they have a broad understanding of contemporary textile terminology.
3. The importance of the relationship of the grain line and the design of the fabric was understood by more of the home economists than of the contrasting group.
4. The home economists had a fair understanding of man-made fibers.
5. Both groups preferred printed information in an accessible place, not on the end of the bolt where it often is found. Information printed on the selvedge and in a leaflet were preferred.

6. Homemakers relied upon their knowledge derived from past experience when purchasing fabrics; however, they depended upon salespersons for additional information when labeling was inadequate.
7. If retailers had in-service training courses in Textiles for their salespeople, such a program would probably be advantageous to the retailer, the salespeople, and the consumers.
8. Labels are needed that will inform the consumer of the performance she can expect from a fabric. Meaningless words and phrases do not help the textile consumer to make wise purchases.

It was quite apparent that both groups of homemakers, according to the tabulated results of this questionnaire, are not well-informed of the meanings of contemporary textile terminology. There are several ways in which the data presented in this thesis could be further analyzed. The age bracket of each group making the highest percentage of correct responses regarding the appropriate uses of fabrics and/or textile terminology could be determined. Is it the group which has recently attended college, or is it the group which is somewhat older and may be sewing for growing children that has the greater understanding?

Because the members of the N-group were given the opportunity to tell what training they had, a comparison of the data from this group could be made by separating the women according to the type of training they had.

Who had the highest percentage of correct responses-- those with a 4-H background, high school training, or other group instruction?

The analyses could be carried further to determine the fibers that are most frequently used by each group and the garments most often constructed. Are the homemakers using man-made fibers? What blend, if any, are they using? Are they making more children's garments than clothing for themselves?

With the results of the data presented, extension and adult education classes could be planned whereby adults may obtain information regarding textiles, contemporary textile terminology, and the trends.

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A P P E N D I X - A

School of Home Economics
Oregon State College
Corvallis, Oregon

March 31, 1959

Dear

"Bewitched, Bothered and Bewildered!" Is that the way you feel when you shop for fabrics? There are so many unfamiliar terms on the labels today that many times it is difficult to make a choice. In recent years various finishes have been developed whereby a familiar fabric assumes different characteristics. Many new finishes and fabrics with unfamiliar terminology, oftentimes "coined" words, constantly appear on the market. Do you know what all of them mean?

We believe that the terms found on labels should be explained or defined. Don't you think the manufacturers should give the consumer more understandable information rather than just a "catchy" word or two? Most of us are too busy to study textiles; instead we must rely upon the advertising, descriptions on available labels, the salesclerk, and sometimes upon our past experience or the experience of others. We are asking you to help us verify the fact that manufacturers must give the consumer better labels. Will you check and return the accompanying questionnaire in order that we may join forces to emphasize this need for clearer labeling on fabrics? Thanking you for your cooperation.

Sincerely yours,

Elaine K. Carlson

I. To indicate your solution to the problem, circle the letter in the left-hand column that corresponds to the answer.

1. A housedress faded after several washings. To prevent this, which term should the homemaker have looked for when purchasing the fabric?
a b c a. Vat-dyed b. Guaranteed c. Staz-nu
2. Many homemakers dislike shrinking cotton fabrics before sewing them. What term tells you that a fabric need not be shrunk before using it?
a b c a. Preshrunk b. Sanforized c. Shrinketized
3. Wool is not apt to shrink out of size as readily if it has been properly treated. What name should the consumer look for to be assured that the fabric has been thus treated?
a b c a. Sized b. Relaxed c. Sponged
4. Which term would be suitable for a gardening jacket made of medium-weight cotton that will shed water and yet be comfortable?
a b c a. Water proof finish
 b. Water repellent finish c. Either one

II. In the eleven following questions, choose the most suitable fabric for the given problem. Circle the letter in the left-hand column that corresponds with your answer.

1. A pleated skirt that will retain the crease or press after washing.
a b c a. 80% wool, 20% Orlon
 b. 55% wool, 45% Orlon
 c. 90% cotton, 10% nylon.
2. Washable brunch-coat.
a b c a. Linene b. Glazed chints c. Pique
3. Smooth, durable lining for a child's coat.
a b c a. Percale b. Taffeta c. Cotton sateen

- a b c 4. Interfacing for collar and cuffs made of pique.
a. Pellon b. Batiste c. Crinoline
- a b c 5. Interfacing for a wool coat.
a. Hair cloth b. Taffeta c. Muslin
- a b c 6. Dainty, soft, sheer blouse.
a. Dotted swiss b. Organdy c. Voile
- a b c 7. Infant's dress.
a. Lawn b. Shantung c. Organdy
- a b c 8. Washable shorts for a gym class.
a. Chambray b. Sailcloth c. Serge
- a b c 9. Winter coat to be worn in a cold climate.
a. Wool challis b. Wool poplin
c. Wool fleece
- a b c 10. Sleepwear for summer.
a. Cotton covert b. Plisse crepe
c. Indian head
- a b c 11. Sleepwear for winter.
a. Cotton covert b. Nainsook
c. Flannelette

III. Some women examine "wash and wear" fabrics to see if the design is on the straight (grain) of the material. What do you do? Check your answer in the space at the left of the statement.

1. ___ I never bother with the grain line.
2. ___ I examine plaids or stripes.
3. ___ I examine all over (random) prints.

IV. The terms in the left-hand column are the names of finishes used on fabrics. In the blank before each term in the left-hand column, write the letter, from the right-hand list, that corresponds to the description of the term. Leave the space blank if the term has no meaning to you.

- | | |
|---|-----------------------------|
| 1. <input type="checkbox"/> Fast Colors | a. Wrinkle resistant finish |
| 2. <input type="checkbox"/> Superset | b. Shrinkage finish |
| 3. <input type="checkbox"/> Vita-last | c. Color finish |
| 4. <input type="checkbox"/> Embossed | d. Repellency finish |
| 5. <input type="checkbox"/> Sanitized | e. Surface-changes finish |
| 6. <input type="checkbox"/> Polished cotton | f. Starchless finish |
| 7. <input type="checkbox"/> Sag-no-mor | |
| 8. <input type="checkbox"/> Perma-pressed | |
| 9. <input type="checkbox"/> Regulated | |
| 10. <input type="checkbox"/> Bellmanized | |
| 11. <input type="checkbox"/> Sanforize | |
| 12. <input type="checkbox"/> Staze-rite | |
| 13. <input type="checkbox"/> Tebilized | |
| 14. <input type="checkbox"/> Unidure | |
| 15. <input type="checkbox"/> Everglaze | |

V. Do you agree with the following statements? If so, circle the "Yes" in the left-hand column. If you disagree, circle the "No".

- | | | | |
|-----|----|----|---|
| Yes | No | 1. | The color may fade when a fabric is labeled "Colorfast". |
| Yes | No | 2. | The term "sizing" means that cotton so treated will not shrink. |
| Yes | No | 3. | Unweighted silk may be labeled "Pure Dye Silk". |
| Yes | No | 4. | "Crease resistant" means that cotton so treated will not crush or wrinkle. |
| Yes | No | 5. | Mercerization adds strength and luster to cotton. |
| Yes | No | 6. | Fabrics treated for crease recovery require a minimum amount of care. |
| Yes | No | 7. | "Permanent pleats" means that pleats will remain for the life of the garment. |
| Yes | No | 8. | Cotton is the only fiber that is treated for crease resistance. |
| Yes | No | 9. | The design in resin-treated embossed cotton is durable. |

Yes No 10. Drip-dry cottons can be straightened by pulling them into shape.

VI. Various factors influence a person's choice of fabric when little printed information is available. Using the following key, circle the appropriate letter that indicates what you do.

Key: U I usually do this.
 S I sometimes do this.
 N I never do this.

- U S N 1. Depend upon the salesperson for information.
- U S N 2. Examine the weave and how closely it is woven.
- U S N 3. Feel of the fabric to determine if it is desirable.
- U S N 4. Rely upon the reputation of the store for selling quality goods.
- U S N 5. Rely upon the trade-name.
- U S N 6. Rely upon the price to indicate the quality.
- U S N 7. Select it because you like the color, regardless of any other characteristic.
- U S N 8. Select it because you like the design, regardless of any other characteristic.
- U S N 9. Select it because you like the texture, regardless of any other characteristic.

VII. In the right-hand column are listed a few of the available synthetic fibers. The left-hand column is composed of phrases that identify certain characteristics of each. Place the letter of the synthetic before the phrase that describes it.

- | | | |
|------|--|------------------------|
| 1. — | The heat indicator on the electric iron is set for this fiber. | a. Saran
b. Viscose |
| 2. — | Noted for its great strength when wet or dry. | c. Lurex
d. Acetate |
| 3. — | Can be ironed at about the same temperature as cotton. | e. Nylon |
| 4. — | Used for sparkle in woven and knitted fabrics. | f. Dacron
g. Orlon |
| 5. — | Widely used in fleece coats. | |
| 6. — | Not generally used for clothing. | |
| 7. — | Frequently combined with cotton in batiste. | |

VIII. Have you ever felt annoyed or frustrated because it was difficult to find where the information, if any, was printed? If all the manufacturers would print the information in the same place, it would help to conserve a weary shopper's nerves and energy. Check the place/places where you think the information should be printed.

1. — On the selvedge.
2. — On the end of the bolt.
3. — On a hang tag.
4. — On a placard set on the counter above the fabrics.
5. — On a leaflet you could take with you.

- X. If you have received group instruction in sewing classes, please check the place where you received it.

Junior High School, High School,
 4-H Clubs, College, Sewing classes
sponsored by sewing companies, Other.

Please state where: _____.

- XI. How many years did you attend college? Circle the number:

0, 1, 2, 3, 4, more than 4.

Did you major in home economics? Yes. No.

Age?

20-29, 30-39, 40-49, 50-59, 60-69,

over 70.

Your name? (Optional) _____.

A P P E N D I X - B

School of Home Economics
Oregon State College
Corvallis, Oregon

April 15, 1959

Dear Homemaker:

Is the questionnaire you received from me still at your house? Did you put off checking it, intending to do it later? If you have completed and returned it, please accept my thanks. If you still have it, would you please return it as soon as possible?

Thank you.

Sincerely yours,

Elaine K. Carlson