

THE VALUE OF PRETESTS IN CLOTHING INSTRUCTION AS
DETERMINED BY EXPERIENCES
AT STILWELL HIGH SCHOOL

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CHAPTER I

THE PRETESTS: THEIR PHILOSOPHY AND THEIR RELATION TO THE COMMUNITY

Education to be effective promotes the continuous growth of the individual in all areas of living with a view toward achieving and maintaining the democratic way of life. It helps the individual to meet present problems and prepares him to meet those of the future. Education should encourage reflective thinking so that each individual may develop the personal abilities and characteristics necessary for democratic living.

The school furnishes much of the education of today and should provide opportunities for the development of individual abilities, interests, and needs as well as those of the group. Students should have a part in the planning of class goals, the content of the course, and the general procedures to be followed if maximum interest is to be obtained and school instruction is to be effective. One home economist says that

Students who participate in the planning and evaluation of their own class work are better pleased with the accomplishment achieved and better satisfied with their personal and group ratings than they are in classes conducted in a more traditional manner.¹

Class activities should provide students with many opportunities for making decisions and with successful experiences in attacking and solving the problems which confront them.

Home Economics began as a skill subject, that of teaching girls to sew and to cook. Cooking has become a study of food for the family and sewing a study of the clothing problems of the family. Today, home economics deals with the problems of personal, home, and family life which grow directly out of home

¹Millie V. Pearson, A Study of Professional Home Economics Education Courses in the Light of the Democratic Ideal, Unpublished Doctoral Dissertation, p. 575.

living situations. It should help the individual adjust to the social order of which he is a part and should prepare him to utilize available resources in meeting problems. The greatest contribution made by home economics is that of helping individuals formulate desirable ideals and standards in regard to personal, home, and family life.

Teaching often starts with the subject matter to be taught rather than with students who learn. Much is based on the assumption that students know nothing of the course to be taught. However, a teacher who is concerned with the progress of students must know their abilities and limitations, and must build all teaching plans with this knowledge in mind. No student can live in a home satisfactorily without acquiring some knowledge, ability, and skill in solving personal, home and family life problems. Neither can a teacher do her best work unless she has all available information about her students and uses it as a basis for curriculum planning. The teacher who wishes to know the home background of students may gain such informal information by visiting. Records should be kept in such a manner that the information gained will be used to develop the home economics program.

Although there is a "Guide for Planning the Homemaking Education Program in the Public Schools of Oklahoma," there is great variation in the type of material taught. The guide suggests that foods, clothing, and relations be taught in the seventh and eighth grades with problems in health and housing included. However, few girls actually have this classroom background when they enter high school. Many high school students come from small one or two-teacher rural schools where the content of one book on homemaking is frequently taught by teachers having no preparation or experience in homemaking education. In contrast, some junior high schools have homemaking laboratories where a fairly broad homemaking education program is taught. On the other hand, many girls

have taken an active part in 4-H Club work and developed specific skills and abilities in one or more phases of homemaking. Some homemaking education programs deal with the personal, home and family life of the individual, and all students acquire some knowledge, ability, and skill.

Any homemaking education program, if it is to be effective, must be built upon the past experiences, understandings, interests, abilities, and skills of the students to be served. Few educators have discovered satisfactory means of securing this information. As a result, most teachers operate on the general information that they have regarding past school offerings and their own best knowledge of students needs and interests.

Heretofore, the author, like many other home economics teachers, has been planning class work on the basis of her own experiences and her knowledge of former students. This was done with a very superficial knowledge of the needs, interests, and abilities of the student group concerned. Realizing that more specific information regarding each oncoming group of students was necessary, the author has written this thesis as an effort to develop and use simple evaluation instruments which will help in determining student status regarding clothing problems. It is hoped that the information secured through the use of the evaluation instruments developed will be sufficient to comprise a plan for a satisfactory educational program in clothing for the high school in Stilwell, Oklahoma.

Since clothing is only a small part of the work in home economics, it is hoped that the information gained through this study will point toward the development and use of similar evaluation instruments in other phases of homemaking education.

A series of pretests were planned in an effort to determine what information, abilities, and skill Stilwell students had in clothing. The pretest as used in this investigation is a test that is administered at the beginning of a course,

or unit, rather than after class work has been completed. "A pretest is appropriate when the students have had some general experience with the problem and the teacher is anxious to find out at what level to attack the problem with them."² The results of these pretests were used as guides in determining student-teacher planned objectives and in outlining the work to be accomplished by each class. True, the investigator did not expect to find all students in each year of homemaking education equally well prepared, for these students, like most others in Oklahoma, had widely differing backgrounds.

The writer was of the opinion that curriculum-making should be a joint enterprise between students and teacher and a continuous process with the teacher acting as guide. The teacher must not only help the student to recognize problems but should also broaden the scope of the work to include those learnings which students see as important. When all have a part in planning classwork they are better satisfied with the content of the course and with the knowledge acquired.

New learning experiences challenge students while repetition causes them to lose interest. Interest is greater when both students and the teacher know student weaknesses before starting classwork and when that work brings new learning experiences. Also there is less wasting of student time and less avoiding of difficult tasks when the curriculum is constantly bringing new knowledge and helping the individual to recognize his abilities and develop new skills. Interest is also greater when the student receives a feeling of security through the satisfactory solving of the problem attacked.

The progress of the student can be measured if present information, abilities, and skills are recognized by both teacher and pupil. Brown states that teachers seldom make any analysis of results or compare pretest and retest scores to

²Eugene R. Smith and Ralph W. Tyler, Appraising and Recording Student Progress, p. 238-239.

show the relative progress of different students or to discover which ones are apparently profiting little from instruction.³ Without the pretest scores there can be no accurate measurement of progress. Even the student with a comparatively low score may make greater progress than a student with a higher score.

The specific problem is that of finding what Stilwell, Oklahoma high school students enrolled in homemaking know about clothing.

To find what persons know, it is necessary to assume that they know some things and that knowledge about these may be tested. After reading from a number of authorities, consulting the courses of study in homemaking from many other states, conferring with other high school teachers and with clothing specialists, the writer has decided that students in high school homemaking instruction in clothing should achieve the following goals:

1. Recognize principles of color and design.
2. Apply principles of color and design to clothing problems.
3. Recognize commonly used fabrics: the fibers of which they are made, the weaves used, and the garments for which they are best suited.
4. Know the steps in threading the machine.
5. Know the important part of the sewing machine.
6. Know how to follow and interpret simple pattern directions.
7. Recognize the steps commonly used in the construction of a simple garment.
8. Recognize desirable standards for clothing construction.
9. Is able to select dresses and costumes which are appropriate for different occasions.
10. Is able to evaluate progress and further needs.

There may be other goals just as important, but for the purpose of this study

³Clare E. Brown, Evaluation and Investigation in Home Economics, p. 16-17.

those to be measured have been limited to the ten listed.

Part II of this study deals with the evaluation instruments developed and used in the clothing classes of Stilwell high school.

Part III presents the findings from the use of evaluation instruments and suggests revisions.

The homemaking program in Stilwell high school has as its purpose, meeting the needs of a group of students with varied backgrounds. Stilwell, Oklahoma is a small town of approximately 2,000 people. Farm lands suitable for raising fruits, berries, vegetables, and grains surround it. The outlets for these products include a canning factory, local buyers for larger firms, and local consumption. The raising of broilers for market is becoming a source of income for many rural families. While stock raising is not done on a large scale, some farmers are depending on this as a source of income. A factory which makes ax handles and railroad ties aids many rural people in making their living, or supplementing it.

In 1947 the city government of Stilwell was reorganized and with this reorganization came a change in the schools and homemaking department. Under the new city charter the schools were to have a school board composed of five men. When the new school board was organized, the members saw a need for expansion and improvement.

In the fall of 1947 a new home economics department was built. The physical set-up, though not perfect, is adequate for meeting the needs of students in homemaking classes. In the first semester of 1947, 139 girls were enrolled in homemaking. The class in homemaking for the junior and senior girls had to be limited to thirty-two. In 1948, the same situation existed; so it seemed advisable to expand the program to include two homemaking teachers. In the fall of 1949, a class for senior boys was added; the class for junior and senior girls was divided, and three sections of Homemaking I were offered for freshmen.

From the beginning an attempt was made to adapt the homemaking program to the local situation. Students at Stilwell high school are from families of professional men, merchants, laborers, and others living within the town and and nearby rural homes.

Over fifty per cent of the students have completed the first eight grades in small one or two-teacher schools. A few of the Indian students come from homes where little or no English is spoken. Many of the students who come to high school at first are timid and insecure; so the class goals, even though set up by the group, actually represent the voice of only a small per cent. Therefore, special care must be taken in order that the curriculum will not fail to meet the needs of the majority of the students.

Instruction in home economics should be based upon the previous experiences, understandings, and skills of the students. Progress can be made and measured if both the student and teacher recognize this. Instruction may be improved when teachers discover what students know at the beginning of a unit so that they will have a basis for determining what shall be taught, and when student difficulties are recognized and remedial measures applied.

Some phases of clothing instruction are included in the curriculum of each year of high school homemaking. Both the student and the teacher should recognize the factual knowledge previously acquired, the factual knowledge plus understanding, the ability to apply what has been learned, the ability to do, the change in attitudes, the development of appreciations, and the growing understanding of clothing problems by the high school girls. If these are recognized the student will see that the content of the clothing unit, although determined by the individuals of each class, is continuous and growing in each year of homemaking.

To improve the curriculum of the clothing unit of Stilwell high school home economics classes, a series of pretests was developed to evaluate the ten

goals that had been selected. There may be many goals of equal or even greater importance, yet it is impossible to test all. As the goals were selected many authorities were consulted to determine the best means of evaluating progress.

CHAPTER II

EVALUATION INSTRUMENTS DEVELOPED AND USED IN CLOTHING CLASSES

Before attempting to construct the evaluation instruments used in this study, the writer examined tests and other instruments already developed to see whether they would serve as a satisfactory means of appraising the objective or goal. Only a limited number of pretests were available, so it was necessary to construct new instruments. According to Spafford

Pretesting has been a much neglected aspect of evaluation. An increasing number of teachers, however, are giving pretests of one type or another; some to find out where learning should, in general, begin for a group; others, in an attempt to base a final grade on student growth.⁴

The writer attempted to develop instruments which would not only aid in planning the clothing program and in guiding students, but would also provide evidence on which the progress of the student and the effectiveness of the class instruction could be appraised.

Ten instruments were developed in an attempt to secure information regarding student experiences and abilities in the use of color and design, fabrics, construction processes, sewing equipment, and selection of clothes. These instruments or pretests were given to all girls enrolled in the homemaking classes of Stilwell high school during the school year of 1949-1950, before class instruction for achieving each goal was planned.

A total of 108 girls were tested in Homemaking I, II, III, and IV; 43 freshmen, 31 sophomores, 20 juniors, and 14 seniors.

Each of the ten tests developed and given is presented in this study and the results obtained are discussed. Each of the test scores are grouped into

⁴Ivol Spafford, Fundamentals in Teaching Home Economics, p. 218

a frequency table with the median, upper quartile, lower quartile, and range of scores computed.

Test 1. "Recognition of Principles of Color and Design," was developed to ascertain what knowledge students have regarding art. Actually it was a test of the knowledge of the theory of color and design that will help in selecting clothes. This was a matching test of twenty points in two parts: Part I, color; Part II, design.

The theory of color and design is usually taught in Homemaking I. The unit may be revised and added to at each grade level when there is interest and need. To determine the need the test was given to all groups of students at the beginning of their work in clothing.

The test papers were checked on the basis of one point for each statement matched correctly. The scores were grouped according to a frequency table. See Table I, page 13. The median for the freshmen groups was 2; the sophomores 13; the juniors 15; and the seniors 11. It was obvious that the freshmen had little knowledge of the theory of color and design. The knowledge of the junior group was greater than that of either the sophomore or senior group. It was evident to both students and teacher that additional study of the theory of color and design was needed in each homemaking class.

Many people recognize the principles of color and design but do not apply them; some are able to define these principles but never actually use them. A test for determining the ability to recognize principles gives only a portion of the information needed for pupil-teacher planning.

Test 1: Recognition of Principles of Color and Design

DIRECTIONS: This is a matching test where terms used in speaking of color and design are matched with definitions or descriptions. Select from the list of terms the one to which this definition or description best applies. Write the letter of this term in the blank at the left of the definition or description.

PART I - COLOR

Terms

Definition or Description

- ___1. A harmony which uses a combination of various values of one hue.
- ___2. Red, orange and yellow.
- ___3. A scale that shows difference in light and dark.
- ___4. Blue, green, and violet.
- ___5. A combination of two or more colors near each other on the color wheel.
- ___6. A term used to distinguish one color from another.
- ___7. Orange, violet, and green.
- ___8. Black, white, or gray is combined with a brighter hue.
- ___9. Light values of colors.
- ___10. A scale that shows brightness or dullness of a color.
- ___11. Red, yellow, and blue.
- ___12. Two colors that are opposite each other on the color wheel.

TERM

- | | |
|---------------------------|-----------------------------------|
| a. Adjacent color harmony | h. Hue |
| b. Cool colors | i. Secondary colors |
| c. Primary colors | j. Complementary colors |
| d. Value scale | k. Tints |
| e. Intensity scale | l. Accented neutral color harmony |
| f. Monochromatic | |
| g. Warm colors | |

Test 1:

PART II

Terms	Definition or Description
___1.	A life-like design.
___2.	A related movement.
___3.	Size, shape, and construction of an object.
___4.	Pleasing relationship among color, lines, shapes, sizes, textures, and ideas.
___5.	Center of interest.
___6.	Ornamentation added to the object.
___7.	Equal distribution of weights.
___8.	The relation of space divisions to each other.
___9.	Lines going outward from a central point.
___10.	A design following established principles and not true to nature.

TERM

a. Conventional design	f. Naturalistic design
b. Decorative design	g. Balance
c. Harmony	h. Emphasis
d. Radiation	i. Proportion
e. Rhythm	j. Structural design

TABLE I

Scores on Test 1: Recognition of Principles of Color and Design

Possible Score	Freshmen	Number of Students Sophomores	Scoring Juniors	Seniors
20			1	1
19		1		
18		4	1	
17		4	3	
16			5	
15		2		
14		4	1	
13		2		1
12		6	1	1
11		3	2	4
10		3	2	1
9		1		2
8	1		1	
7			1	
6	4		1	1
5	4			1
4	3		1	
3	8	1		1
2	9			1
1	9			
0	5			

Number taking test	43	31	20	14
Median	2	13	15	11
Upper Quartile	4	17	17	11
Lower Quartile	1	11	10	6
Range of scores	7	16	16	18

Test 2, "Application of Principles of Color and Design," was planned in an attempt to measure the student's use of knowledge regarding art. The success of the student depended upon the extent to which he was able to apply certain rules of color combinations, balance, etc., in dealing with clothes. It was recognized that a student may be able to apply art principles even though he has not learned specific information or rules. In constructing the instrument it was impossible to present a great variety of articles of clothing showing the art principles; so for practical reasons the test developed as one of factual knowledge plus understanding. It was a matching test of twelve facts and statements showing their applications. This test also was given to home-making students enrolled in each of the four years of work offered.

The scores made on the test also were grouped into a frequency table. The median, upper quartile, lower quartile, and the range of scores were computed for each class. The results of this test, as in the case of Test 1, show that freshmen girls have little or no knowledge of color and design and make poor applications of the facts involved. Sophomores seemingly have the most accurate information and make the best applications. This may be due to the fact that only one year had passed since their study of color and design. The scores of the juniors were the most widely distributed. In this case, there were several students with little or no experience in the selection or buying of clothes, while some were girls with training and ability who had been permitted to assist in making selections.

School records show that many of the junior class are poor students who come from large families where they have responsibilities which do not permit or encourage the application of the principles of color and design in selecting clothing. The seniors rated neither high or low; their scores were concentrated near the middle as were the sophomore scores.

All of these facts seem to point to the need for more explicit and con-

tinued instruction on art principles at all levels and may mean less emphasis on construction processes.

Test 3, The evaluation instrument entitled "Recognition of the Commonly Used Fabrics" was developed to obtain evidence concerning the need for teaching the more commonly used fabrics. It was an identification test using actual samples of fabrics. Since it is not possible to include the fabrics used, only the instruction sheet and the results obtained are reproduced.

One set of cards containing a total of twenty-five fabrics was prepared for each student. These cards were identical as to material, design, color, and location of fabric on the card.

As the textile study of the clothing unit in each year of high school work was introduced, every student was given a set of the cards with a form on which to answer questions asked about the fabrics. This test was very confusing to the freshman students; they seemed to know only a few of the fabrics, no weaves, nor fibers. They did recognize the use of some of the materials. The more advanced classes not only recognized many fabrics but were also aware of some of the commonly used weaves and fibers, and weaves created interest and served as a stimulus for further study. The students seemed in no way, upset over their lack of information. This may have been due to the fact that they had by now acquired experience in taking the kind of test this teacher gave.

From Table III, the reader will note that there is no record of the results for the senior class. Before the test could be introduced, fabrics had already been covered in class to such an extent that the test would not determine what the students in the senior group knew at the beginning of the unit. No freshman scored higher than twenty points. Most of these points were made in the knowledge of the use of materials. No sophomore rated as low as the highest freshman. The weakest point of all classes was in the recognition of weaves.

Test 2: Application of Principles of Color and Design

DIRECTIONS: This is a matching test where applications are matched with facts. Select from the list of applications the one to which the fact best applies. Write the letter of this application in the blank at the left of the fact.

APPLICATION OF COLOR AND DESIGN

The Fact	Applications
___1. Complementary colors emphasize each other.	a. Medium blue suit with medium tan accessories lacks character.
___2. A color used with gray, beige, black or white appears clearer and brighter.	b. A blue dress which is the same hue as the eyes serves to emphasize the blue in the eyes.
___3. Two or more colors of the same value are monotonous.	c. When a girl with golden hair wears a violet dress, the golden hair appears more golden.
___4. A color should be used in smaller amounts as intensity is increased.	d. A red accent on a gray suit appears clearer than on a brown suit.
___5. Color may be increased by repetition.	e. A bright red dress makes one appear larger.
___6. White and light colors increase size.	f. White shoes make the feet appear larger.
___7. Bright colors increase size.	g. A moderately dark dress needs only small accents of color in the accessories.
___8. Dark colors decrease size.	h. A dark blue dress makes one appear smaller.
___9. To create a beautiful effect there must be harmony.	i. A costume should not make the figure appear top heavy.
___10. Good balance is important in dress design.	j. Good lines in costumes are in harmony with lines of human figure.
___11. Decoration should enhance structure.	k. Geometric designs of a scarf may be pleasing.
___12. Good decoration is not pictorial.	l. Most handkerchiefs with borders are pleasing.

TABLE II

Scores on Test 2: Application of Principles of Color and Design

Possible Score	Freshmen	Number of Students Scoring Sophomores	Number of Students Scoring Juniors	Seniors
12		1	5	
11		1	1	
10		7	1	4
9		5	2	1
8		4	4	2
7		5		3
6		4	1	2
5	2	3	2	2
4	3	1		
3	13	3		
2	8			
1	5		1	
0	12			

Number taking test	43	31	20	14
Median	2	8	8	7
Upper Quartile	3	10	12	10
Lower Quartile	0	6	5	6
Range of scores	5	8	11	5

This evaluation instrument not only served as a measure of the information students had, but was also a stimulus for additional study of fabrics.

Test 4, "Knowledge of Steps in Threading the Sewing Machine," was administered by having students draw a line on a chart of a sewing machine*, tracing the thread on a correctly threaded machine. A sufficient number of charts were secured for each student to have one on which to draw. No discussion of the sewing machine had been made in any class before giving the test.

The brevity of the test made it possible for the scoring to be done very accurately and speedily. If only one error was made the student could not thread the machine.

Table IV interprets the scores in numbers and percentages.

Some students at each level could not show how to thread the machine, yet the number decreased with experience in clothing construction; the smallest percentage unable to thread the machine was in the senior class.

A recognition of the evident inability of the freshman class to thread the sewing machine showed the necessity for teaching this material. In the other classes some pupils were still in need of information and practice.

Students who could thread the machine were most helpful in teaching others. This helped especially in the Homemaking I classes to promote good relationships, to stimulate interest, to save the teacher's time, and to give assurance to girls who could thread the machine.

*Charts used were secured from The Singer Manufacturing Co., Class 15-88 and 15-99 machines.

Test 3: Recognition of the Commonly Used Fabrics

DIRECTIONS: You have been given 25 samples of fabrics. Each is labeled with a number. Write the label number in the second column, fiber name in the third column, the weave used in the fourth column, the garment for which it is best suited in the fifth column.

Name of fabric	Label Number	Name of fiber of which it is made	Weave Used	Name one garment for which fabric is best suited
Batiste				
Broadcloth				
Cretone				
Chambray				
Crepe				
Gingham				
Percale				
Indianhead				
Muslin				
Khaki				
Seersucker				
Dixie				
Denim				
Corduroy				
Dotted swiss				
Voile				
Waffle pique				
Outing flannel				
Crepe romaine				
Satin				
Gaberdine				
Brocade				
Taffeta				
Tweed				
Crepe faille				

TABLE III

Scores on Test 3:

Recognition of the Commonly Used Fabrics

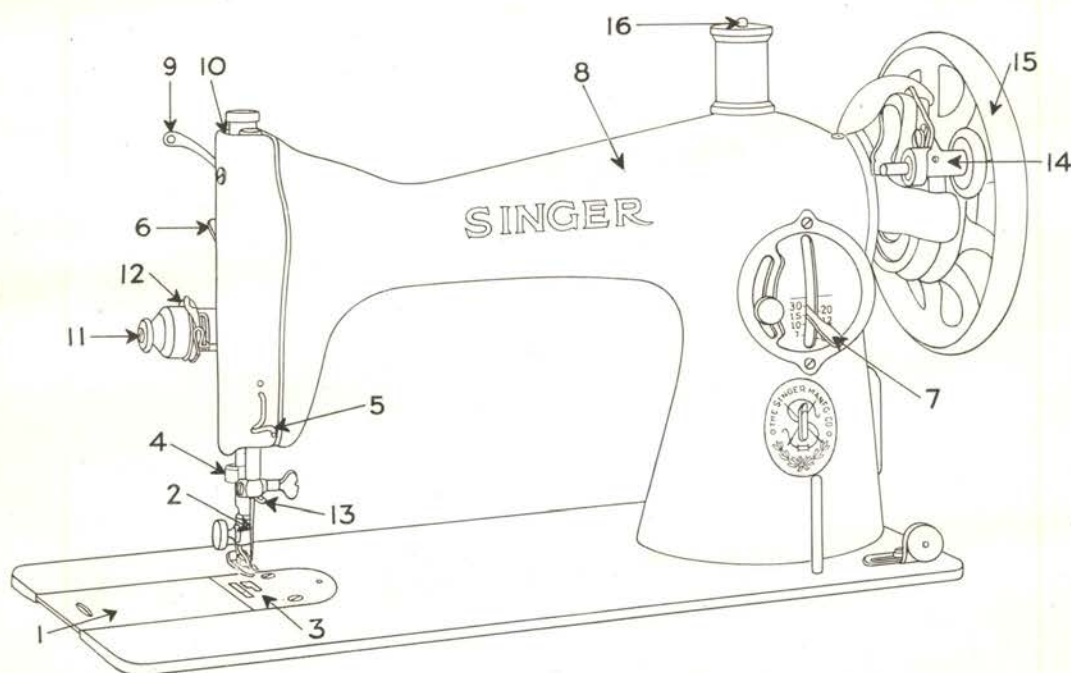
Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
91-95		3		
86-90		3		
81-85		1	1	
76-80		4	1	
71-75		5		
66-70		3	3	
61-65		2	2	
56-60		2	1	
51-55		1	1	
46-50		1	5	
41-45		2	1	
36-40			3	
31-35		3	1	
26-30		1		
21-25			1	
16-20	1			
11-15	4			
6-10	23			
0-5	15			

Number taking test	43	31	20
Median	7	71	49
Upper Quartile	8.5	82	65
Lower Quartile	4	51	42
Range of scores	18	67	60

Test 4: Knowledge of Steps in Threading the Sewing Machine

DIRECTIONS: Draw a line on the diagram shown below, tracing the course of the thread.

TEST CHART - Oscillating Shuttle Machine



CLASS 15-88 and 15-91 MACHINES

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E. D. 111

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TABLE IV

Percentage of Students with Ability to Thread the Sewing Machine

Total Enrollment of Classes	Could Thread Machine Number	Could Thread Machine Percent	Could Not Thread Machine Number	Could Not Thread Machine Percent
Freshmen 43	5	12%	38	88%
Sophomores 31	24	77%	7	23%
Juniors 20	17	85%	3	15%
Seniors 14	12	85-5/7%	2	14-2/7%

Test 5, "Knowledge of the Important Parts of the Sewing Machine," was given following the test on threading, so that the same diagram of the machine could be used. The test was developed from a chart published by The Singer Sewing Machine Company on which the head of the sewing machine was drawn and its parts numbered.

The students were asked to identify parts of the sewing machine by writing the correct numbers before the names of ten parts listed, and in the remainder of the test to write names of parts in the space before five definitions.

By a study of the various scores reported in Table V it will be noted that all students knew some of the parts of the sewing machine. An examination and comparison of the test papers revealed the fact that two parts of the sewing machine were known by all students, the bobbin winder and the needle bar. No freshman knew all parts of the sewing machine that were listed. Only 13 per cent of the sophomores, 25 per cent of the juniors, and 21 per cent of the seniors made perfect scores.

After studying the test results the need for additional experiences designed to overcome the lack of knowledge of the parts of the sewing machine was evident to both the students and the teacher. The test proved to be an instructional device as students were motivated to learn these parts as well as many not included in the test.

Test 5: Knowledge of the Important Parts of the Sewing Machine

DIRECTIONS: In the accompanying diagram of a sewing machine* some of the parts are numbered. Below is a list of these parts. Place the number of the machine part in the blank before the name.

PARTS OF SEWING MACHINE

_____ Balance wheel	_____ Presser bar
_____ Presser bar lifter	_____ Needle bar
_____ Stitch regulator	_____ Spool pin
_____ Bobbin winder	_____ Upper tension
_____ Feed dog	_____ Bed slide

Write the name of the machine part in front of its description in the following list:

_____ Spindle on which spool rests.

_____ Mechanism for automatically winding bobbin.

_____ The part that controls the length of stitch.

_____ The part that lifts the presser bar.

_____ The toothed part which projects upward through slots in the throat plate, carrying the material from the operator at each stitch.

*The same chart as in Test IV was used here.

TABLE V

Scores on Test 5: Knowledge of the Important Parts of the Sewing Machine

Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
15		4	5	3
14	4	7	4	7
13	2	5	2	4
12	8	8	4	
11	8	3	1	
10	6	1	3	
9	4	1		
8	4	2		
7	1			
6	1			
5	1			
4	2			
3				
2				
1				
0				

Number taking test	43	31	20	14
Median	10	13	13	14
Upper Quartile	12	14	15	14
Lower Quartile	8	8	11	13
Range of scores	10	7	11	2

Test 6, "Knowledge of Following and Interpreting Simple Pattern Directions," was planned to achieve both a student and teacher goal. As the construction of clothing was introduced, many students could see no value in using patterns because their mothers did not use them.

The instrument to measure this goal was developed by selecting six frequently used patterns and using the terms found on them. In this test twelve terms were matched with statements explaining such terms. The test as given will be found on page 28. Students took the test before any study of patterns or pattern selection was given.

Several significant observations were made from this investigation. Some freshmen had a knowledge of patterns. Their scores ranged from zero to a perfect score. Such knowledge of patterns as freshmen possessed could have been due to the influence of the home and of 4-H Club work. Many of the girls were not members of 4-H, yet they may have benefited from the club meetings and demonstrations promoted by the County Home Demonstration Agent and other specialists. As may be seen by consulting Table VI, scores for the sophomores, juniors, and seniors were high. This may have resulted from interest, for the girls were exceedingly interested in the actual construction of garments.

An analysis of the test papers of the various classes provided helpful suggestions for instructions on patterns. The points most frequently missed were in regard to the nap of the material, ease of fullness, and grain line.

Test 6: Knowledge of Following and Interpreting Simple Pattern Directions

DIRECTIONS: This is a matching test. It has two parts, a list of terms used in connection with a pattern and a list of statements explaining the terms. Select the terms which are explained by the statements and write the number of the term before the statement which explains it.

TERMS

- | | |
|-----------------------------|---|
| 1. Bust, hip, waist measure | 7. Notches |
| 2. Guide sheet | 8. Darts |
| 3. Layout or cutting chart | 9. Arrows or line of large perforations |
| 4. Salvage | 10. Ease |
| 5. With nap | 11. Grain line |
| 6. Tailor's tacks | 12. Seam allowance |

STATEMENTS

- ___a. Short stitches through the markings on the pattern and the material leaving about one inch of thread at the end.
- ___b. To full one side to the other.
- ___c. Plan for pinning the pattern on the material.
- ___d. Shows straight of material.
- ___e. Used to place correct pieces together.
- ___f. Shows how to cut, sew, and finish a garment.
- ___g. Tightly woven edge on each side of material.
- ___h. Grain of the material.
- ___i. Tells what size pattern you are using.
- ___j. Right sides together.
- ___k. Place on fold.
- ___l. Shows line on which to baste.
- ___m. Shown with lines or small perforations. Takes care of fullness.
- ___n. Pieces of pattern are all turned in the same direction.

TABLE VI

Scores on Test 6:

Knowledge of Following and Interpreting
Simple Pattern Directions

Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
12	1	5	10	5
11		4	3	6
10	1	8	2	1
9	4	5	1	1
8	4	5		
7	4	1	1	1
6	6	1	3	
5	4			
4	3			
3	9	2		
2	1			
1	4			
0	2			

Number taking test	43	31	20	14
Median	5	10	11.5	11
Upper Quartile	7	11	12	12
Lower Quartile	3	8	9	11
Range of scores	12	9	6	5

Test 7, "Recognition of the Steps Commonly Accepted in the Construction of a Garment" was a goal difficult to measure. The rating device that was developed, outlined in ten steps the procedure for making a plain skirt. These steps were not listed consecutively in the test. The students were asked to number the steps in the order that they should be followed in constructing a skirt. These were checked as satisfactory if there was a logical sequence of the construction steps.

The scores made by students reflected their success or failure in carrying out the best procedure in making a skirt. Four of the freshman girls, as shown by Table IV, knew the steps in construction because skirts had been made in the eighth grade homemaking class the previous year. Thirty-five per cent of the sophomores, sixty per cent of the juniors, and sixty-four per cent of the seniors made perfect scores.

The results of the test showed that students were acquiring the ability to apply principles of logical reasoning in dealing with their problems in the construction of clothing. Very little additional study was needed on the steps in the construction of a simple garment, yet the teacher realized that more difficult steps could be introduced as the needs of the various classes increased.

Test 8, "Recognition of Desirable Standards for Clothing Construction," was based upon finishes accepted in the making of a garment in clothing classes. The instrument was to provide evidence as to the way in which students would judge the structure of clothing. The test was a multiple-choice type of nine parts and was given to each class before the construction of a garment.

The scores, as seen in Table VIII, show that improvement was made in each year of homemaking. The freshmen scores were neither high nor low. The sophomore scores reveal that freshmen students retain much of the information gained in the construction of garments during the freshman year. The higher scores of

Test 7: Recognition of the Steps Commonly Used in the Construction of a Simple Garment.

DIRECTIONS: Procedures are listed for making a plain six-gored skirt. Before each procedure place a number showing the order in which you would do each step. Begin with number 1 and number the steps in the order that they should be done.

Steps	Procedures
_____	Lay pattern on material
_____	Pin and baste plain seams
_____	Straighten and press material
_____	Fit the pattern
_____	Blind stitch hem in bottom of skirt
_____	Fit the garment
_____	Put in zipper
_____	Sew fasteners on band
_____	Even and shape hem in skirt
_____	Put band on skirt
_____	Cut the material

TABLE VII

Scores on Test 7: Recognition of the Steps Commonly Used in the Construction of a Simple Garment

Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
10	4	11	12	9
9		3		1
8	7	9	5	1
7	2	4		3
6	8	1		
5	12	3	3	
4	7			
3	2			
2				
1	1			
0				

Number taking test	43	31	20	14
Median	5	8	10	10
Upper Quartile	8	11	10	10
Lower Quartile	5	7	8	8
Range of Scores	9	5	5	3

the junior and senior classes pointed to the fact that the material over which the test was made should not be included in their curriculum.

The test furnished some insights regarding the way in which clothing construction standards are tied up with abilities. In considering each test paper individually, it was evident that the student making the highest scores in each of the sophomore, junior, and senior classes had constructed the best garments during her previous year of homemaking.

After studying the test results the teacher provided experiences designed to overcome the inability to recognize desirable standards in clothing construction. This prompted the giving of special attention to a thorough understanding of certain details by the entire group and to the additional supervision of those making the low scores.

Test 9, "Ability in Selecting Clothes Appropriate for Different Occasions," was not a good test because the answers were evidently too obvious. The test was a multiple-choice type with six occasions listed and four choices of garments for each occasion. The greatest number of students missed the correct costume for a football game.

As seen in Table IX, the upper quartile in every class is a perfect score, while the lower quartile is only one point below the perfect score. All of the scores at each level were high, yet the students did not select their own clothing wisely. The teacher decided that her test was not a valid technique for measuring ability in selecting clothes appropriate for different occasions but that observing what the student actually wore would be a much better way to obtain the information desired.

Since all girls are interested in what to wear, this unit could be taught in Homemaking I with additional material taught in other classes as the development of the girls and their interests show a need for additional study of this phase of the clothing unit.

Test 8: Recognition of Desirable Standards for Clothing Construction.

DIRECTIONS: Select the one response which best completes the statement. Before the statement, write the letter that corresponds to the response selected.

The most practical finish for a plain seam on a cotton print is

- a. Pinked
- b. Bound
- c. Overcast
- d. Turned and stitched

A practical width for a hem in a six gored skirt is

- a. 2-1/2 inches
- b. 1 inch
- c. 3 inches
- d. 4 inches

A practical width for a plain seam is about

- a. 1/2 inch
- b. 1/4 inch
- c. 3/4 inch
- d. 1 inch

A good seam to use on a chambray dress is

- a. French seam
- b. Plain seam
- c. Fell seam
- d. Lap seam

Any dart that is too wide for its length will

- a. Look too short
- b. Make too much fullness
- c. Bulge

The most desirable machine stitch is

- a. Twenty stitches to inch
- b. Fifteen stitches to inch
- c. Thirty stitches to inch

The best way to sew hem top to the garment in a chambray dress is

- a. Turn hem down 1/4 inch toward garment and hem by hand to garment.
- b. Stitch first turn of hem, and then sew it down by hand to garment.
- c. Stitch lower edge of seam binding 1/4 inch down from top of hem. Hand hem upper edge of seam binding to skirt.

The most practical facing for a round neckline is faced with

- a. A straight piece of material
- b. A bias piece of material
- c. A shaped piece of material

A dress opened down the front should be fastened with

- a. Snaps
- b. Buttons and button holes
- c. Hooks and eyes

TABLE VIII

Scores on Test 8: The Recognition of Desirable Standards for Clothing Construction.

Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
9		4	11	11
8		7	3	2
7	2	10	4	1
6	3	7	2	
5	10	3		
4	13			
3	9			
2	6			
1				
0				

Number taking test	43	31	20	14
Median	4	7	9	9
Upper Quartile	5	8	9	9
Lower Quartile	3	6	7	9
Range of Scores	5	4	4	2

Test 9: Ability in Selecting Clothes Appropriate for Different Occasions.

DIRECTIONS: Below are listed some occasions for which we are to make a selection of what to wear. Underline the costume that you think is most appropriate for the particular occasion.

1. School in September.
 - a. Black crepe skirt with sheer, white blouse.
 - b. Taffeta dress of becoming color with frilly white collar.
 - c. Plain print dress of becoming color.
 - d. Dress with very low neckline.
2. School in January.
 - a. Cotton print skirt with wool sweater.
 - b. Skirt and sweater of becoming color.
 - c. Velvet dress of becoming color.
 - d. Jeans and shirt.
3. Church.
 - a. A dress or suit of a becoming color with a small hat, gloves, purse, shoes and hose.
 - b. A satin dress of a becoming color with a frilly hat, gloves, shoes, but no hose.
 - c. A skirt with a sloppy Joe sweater.
4. Shopping in a city.
 - a. Jeans and shirt.
 - b. Tailored clothes with hat, gloves, purse, and hose.
 - c. Soft crepe dress in a becoming color with large frilly hat with lots of flower decorations, gloves, purse, and hose.
5. Football game.
 - a. Sport coat, sweater and skirt, scarf on head and low heels.
 - b. Fur coat, velvet dress, feather hat, high heels.
 - c. Boy's football jacket, jeans, sweater, loafers.
6. Junior-Senior Banquet.
 - a. Satin evening dress of any becoming color with very slender lines and very low neckline.
 - b. A strapless crepe evening dress with rhinestone or sequin decoration.
 - c. An evening dress of any becoming color with medium neckline, full skirt, and semi-fitted waist.

TABLE IX

Scores on Test 9: Ability in Selecting Clothing Appropriate for Different Occasions

Possible Score	Freshmen	Number of Students Scoring Sophomores	Juniors	Seniors
6	15	21	15	12
5	23	9	4	2
4	2	1	1	
3	2			
2				
1	1			
0				

Number taking test	43	31	20	14
Median	5	6	6	6
Upper Quartile	6	6	6	6
Lower Quartile	5	5	5	6
Range of Scores	6	2	2	1

Test 10, "Check Sheet to Evaluate Progress and Further Needs," was of little value for securing a list of garments previously made in the junior and senior classes. Students did not remember the garments made during their first years of high school. All Homemaking III and IV girls said that they had used a pattern when constructing a garment. The check sheet did show where students were having difficulties with construction problems. All junior and senior girls had done some embroidery, sixteen could crochet, and two could knit. These students reacted in much the same way as all students react to a check sheet. Because check sheets list more activities than single individuals are likely to have carried out they serve as a challenge to learning. Following the checking of this test, projects on handwork were selected by many students in order that they might learn more embroidery stitches and improve others.

The check sheets for the sophomore class presented a different picture. The clothing unit was included in the plans for the first semester. Each girl could easily remember the garments completed during her freshman year and during the summer. It was found that only two girls had not made a garment during the summer vacation. These girls had no sewing machine in the home. One girl had sewed for other children in her family and listed twenty-two garments made since enrolling in homemaking in the freshman year. Another student whose grandparents had given her a new electric sewing machine had completed fifteen garments, but had done no handwork. The remainder of the class had averaged four garments each. Every girl in the sophomore class used a pattern when sewing. The places of difficulty in clothing construction were listed as cutting the garment, finishing the neckline, putting in sleeves, making buttonholes, and finishing hems and plackets. This information was most helpful in guiding the student in her selection of a pattern so as to include new problems which were within her ability to solve. All except two of the sophomore class did some embroidery stitches as a part of their work.

The freshman girls who had completed the eighth grade in the Stilwell Grade School had each made one garment, could use a pattern, had had difficulty with plackets and hems, and had done some embroidery. Of the rural girls, one listed five garments and added the statement, "I have helped make lots of garments." She had not used a pattern and did not embroider. Another rural girl listed four garments made but had not used a pattern nor had she embroidered. Of the remaining rural girls, eight had made one or two garments without a pattern. Three had embroidered.

The check sheet supplied considerable information, but no attempt is made to give a tabulated picture of the results. A copy of the test is included.

Test 10: Ability to Evaluate Progress and Further Needs.

DIRECTIONS: Please fill in the blanks. Your statements will have no effect on your grade.

Garments Made

1	4	7
2	5	8
3	6	9

They had the following construction problems.

1	4
2	5
3	6

Did you use a pattern?

Articles of Handwork made.

1	4
2	5
3	6

They had the following kinds of stitches.

1	4
2	5
3	6

Did you have instructions?

CHAPTER III

FINDINGS AND RECOMMENDATIONS

Early in the study it was found that teacher-made tests were valuable despite the fact that they were rather crude in comparison with those which are constructed by experts. "The improvement of evaluation techniques and devices in any field goes hand in hand with the improvement of teaching."⁵

The specific problem was to find out what the Stilwell, Oklahoma students enrolled in homemaking knew about clothing. "Pretesting should set the lower level where learning begins and individual measurement should indicate the progress."⁶ The pretests given were of much value in planning each of the home-making classes at Stilwell High School.

When the tests were introduced to the freshmen, they were greatly concerned with how little they knew but could see no value in taking the tests. However, they realized they were expected to plan their work on the basis of past experiences and that personal rating was to be done on the basis of growth and new things learned. They felt more secure in analyzing and selecting personal and class problems. There was less reluctance to try new problems, less demand for repeating previous experiences and certainly definite evidences that they wanted to include new learning experiences. One freshman girl made a perfect score on the pretest for following and interpreting simple pattern directions; four made perfect scores on knowing the steps commonly used in the construction of a simple garment; and five made perfect scores on knowing the steps in threading the sewing machine. These girls were recognized as the units were studied. The five who could thread the sewing machine assisted with teaching this accomplishment to the others.

⁵Clara M. Broom, Evaluation and Investigation in Home Economics, p. 222

⁶Ivel Spafford, Fundamentals in Teaching Home Economics, p. 248-249.

Many times in the past when a review of subject matter was suggested, students seemed to think the material had been sufficiently learned in the previous year. Pretests proved them wrong. In each class the students realized that much had been forgotten and that only a small portion of the knowledge of some units had been studied. The pretest on fabrics, as an example, showed that no student knew all of those presented, though many knew more than twenty-five fabrics. So the question arose, "How many materials are there?" This alone proved to each group that there is much more to be learned about clothing problems than can be mastered in four years of high school homemaking.

Time will tell whether or not these tests, which were actually an analysis of ability, will serve as stimuli for continued learning and whether the things learned in these classes will extend beyond the classes.

The abilities of students in any homemaking class vary greatly as the pretests show. The extensive differences of the abilities of the pupils of a class may suggest the grouping or sectioning of those pupils for purposes of instruction in the fundamentals of clothing construction. This would be helpful in providing instruction which is adjusted to the needs and difficulties of the members of the class. All grouping of students would be tentative, for any student may be moved from one group to another as his achievements justify his transfer. The teacher must make adjustments in instruction in order to meet the needs of the individual students.

The writer believes that the very short pretests are of the greatest value for they take little class time, yet give both student and teacher a picture of the material that should be included in the unit.

Test 1: Recognition of the principles of color and design could be developed into a shorter test and yet give the student and teacher the necessary information.

Test 2: Application of principles of color and design could yield the

same information if combined with Test 1. However, in most classrooms, short tests can be included in the class activities.

Test 3: Recognition of the commonly used fabrics took too long, as it required much of the class time to check it. It is the belief of the writer that the same information could be secured by shortening the test to not more than ten fabrics.

Test 4: Knowledge of the steps in threading the sewing machine could be used by any teacher and would save valuable class time.

Test 5: Knowledge of the important parts of the sewing machine proved to be a teaching device as well as an evaluation instrument. The test may be quickly developed, and results in much more efficient care and use of the sewing machine.

Test 6: Knowledge of following and interpreting simple pattern directions could be developed from the patterns used by the students. This test might be limited to one, two, or three patterns.

Test 7: Recognition of the steps commonly used in the construction of a simple garment would be most effective if developed for the type of garment to be made by the class taking the test.

Test 8: Recognition of desirable standards for clothing construction will serve as only a suggestion for making a similar test. More difficult material showing growth of students should be used in the junior and senior classes.

Test 9: Testing the students' ability in selecting clothes appropriate for different occasions did not give the teacher the information desired. The test, if used, should be changed so that the best choice is more difficult to locate.

Test 10: Ability to evaluate progress and further needs was developed as a check sheet. It may need some revision to be used with another group, but it gives the teacher a picture of the background and the needs of the students.

The conclusions drawn from this study are the following:

1. Simple pretests provide valuable information in planning the clothing unit in each year of homemaking.
2. Whenever possible, the pretests should be short, yet measure the goal desired.
3. The pretests used should be changed each year as the needs of the students change and new ideas develop.
4. The use of evaluation instruments should result in the development of both new instruments and new practices.
5. Pretests are not only presented as instruments to be used but as suggestions for teaching.
6. Progress of the individual can be measured when pretests are given at the beginning of a unit.
7. Information gained through the analysis of the results of pretests helped develop a satisfactory unit in clothing for each class in Stilwell High School.

The major conclusion from this study is that the value of pretests is apparent to the person who has actually tried them and used them. In this case the information secured was extremely valuable in planning the learning experiences for clothing classes, and the study points to the need for development and use of similar evaluation instruments in the other phases of homemaking education.

BIBLIOGRAPHY

- Alberty, Harold. Reorganizing the High School Curriculum. New York: The MacMillan Company, 1949.
- Alberty, Harold B., and Boyd H. Bode, Editors, John Dewey Society. Educational Freedom and Democracy, Yearbook II. New York: D. Appleton-Century Company, 1938.
- Baxter, Laura, and Alpha Letzke. You and Your Clothes. Philadelphia: J. B. Lippincott Company, 1943.
- Bode, Boyd. How We Learn. Boston: D. C. Heath and Company, 1940.
- Bode, Boyd H. Progressive Education at the Crossroads. New York: Newson and Company, 1938.
- Brown, Clara M. Evaluation and Investigation in Home Economics. New York: F. S. Crofts and Company, 1941.
- Commission on Secondary School Curriculum. Science in General Education. New York: D. Appleton-Century Company, 1938.
- Denny, Grace G. Fabrics. Philadelphia: J. B. Lippincott Company, 1942.
- Dewey, John. How We Think. Boston: D. C. Heath and Company, 1933.
- Eliff, Rowan. An Analysis and Evaluation of Different Areas of the Homemaking Program. Arizona State College: Unpublished paper, 1948.
- Good, Carter V., A. S. Barr, and Douglas E. Seates. The Methodology of Educational Research. New York: D. Appleton-Century Company, 1935.
- Huston, Hazel H. "Measuring Achievement in Home Economics". Journal of Home Economics, XXIX: (January, 1937) 19-22.
- Leonard, J. Paul, and Alvin C. Enrich, Editors. An Evaluation of Modern Education. New York: D. Appleton-Century Company, 1942.
- Newson, N. William, and George E. Walk. Forms and Standards for Thesis Writing. Scranton: International Textbook Company, 1948.
- Pearson, Millie V. A Study of Professional Home Economics Education Courses in the Light of the Democratic Ideal. Unpublished Doctoral Dissertation. Columbus: The Ohio State University, 1941.
- Picken, M. B. Modern Dressmaking Made Easy. New York: Funk and Wagnalls Company, 1940.
- Quillen, I. James, and Laverne A. Hanna. Education for Social Competence. Chicago: Scott, Foresman, and Company, 1948.
- Rathbone, Lucy and Elizabeth Tarpley. Fabrics and Dress. Boston: Houghton Mifflin Company, 1946.

Rinsland, Henry Daniel. Constructing Tests and Grading in Elementary and High School Subjects. New York: Prentice-Hall Company, 1938.

Ryan, Mildred Graves. Junior Fashions. New York: D. Appleton-Century Company, 1944.

Scruggs, Marguerite. Suggested Evaluation Procedures for Homemaking Classes in Oklahoma. Unpublished Master's Thesis, Oklahoma Agricultural and Mechanical College, Stillwater, 1945.

Smith, Eugene R. and Ralph Tyler, and the Evaluation Staff. Appraising and Recording Student Progress. New York: Harper and Brothers, 1942.

Spafford, Ivol. Fundamentals in Teaching Home Economics. New York: John Wiley and Sons, 1948.

State Board for Vocational Education. A Guide for Planning the Homemaking Education Program in the Public Schools of Oklahoma. Home Economics Bulletin 12, Oklahoma City, 1943.

State Board of Education. Course of Study for Homemaking Education in Virginia Public Schools. Richmond: Richmond Division of Purchase and Printing, January, 1943. Vol. XXI, No. 4.

Suggested Manual for Machine Sewing. New York: Singer Sewing Machine Company, 1941.

Teachers Guide for Vocational Homemaking Education in Colorado. The State Board of Vocational Education, Denver: 1943.

Teachers Guide in Homemaking Education for Secondary Schools of Idaho. Boise, Idaho: The State Board for Vocational Education, 1947.

Todd, Elizabeth. Clothing for Girls. Boston: Little, Brown and Company, 1947.

Trilling, Mabel B. and Florence Williams. Art in Home and Dress. Philadelphia: J. B. Lippincott Company, 1947.

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