

DISCOVERING AND MEETING NEEDS IN
CLOTHING CONSTRUCTION

By

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DISCOVERING AND MEETING NEEDS IN
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PREFACE

The purpose of this study was to help both teachers and students realize how they can work together, to help the students recognize their need for additional experiences in solving problems which arise in the teaching of clothing construction and through guidance by the teacher gain insight into new learning experiences and be conscious of growth they have made.

The study presents a specific example of how one teacher and her students worked, planned together, discovered needs, and made progress in terms of their goals. Recommendations were suggested for use in effective teaching.

The study shows how students may be guided in setting goals and some of the factors that must be considered in evaluating progress in clothing construction.

The conclusions suggest the teacher's responsibility for devising and using pretests, helping students to recognize their progress in planning for future experiences, recognizing how growth has taken place as a result of these experiences; and using the guides developed in future situations.

Particular acknowledgement is due Rowan Elliff, Associate Professor of Home Economics Education, Oklahoma Agricultural and Mechanical College for guidance, suggestions, and ideas which stimulated the writer's thinking in organizing and developing the problem, and for her kindness shown during the time the study was being conducted. Appreciation is likewise due Dr. Millie V. Pearson, Head of Home Economics Education, Oklahoma Agricultural and Mechanical College for suggestions made for the improvement of the material assembled in this study.

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PART I

IMPROVEMENT OF CLOTHING CONSTRUCTION IN LIGHT OF AN ACCEPTED EDUCATIONAL PHILOSOPHY

The purpose of this study was to find ways through which students might be guided in discovering their needs in clothing construction and learning how to meet them more effectively. The study was based on the belief that teaching can be meaningful, useful, interesting and enjoyable to both pupils and teachers if they are working together to achieve common goals. Teaching is not a matter of merely presenting subject matter to pupils, but rather of promoting growth on the part of the individual as a result of his experiences. Davis presents a definite challenge in this relationship:

Teaching should be regarded as more than dealing with the same instructional material from year to year, in much the same manner. New facts and application of facts as well as improved techniques of presentation constantly make their appearance. Failure to keep abreast of one's subject matter field is the usual basis for the boredom of "teaching the same thing year after year." The teacher must be interested in the materials taught and in the art of teaching before pupils can be expected to be stimulated by the guidance of their learning.¹

If teachers are interested in the art of teaching they will make an effort to keep up with new trends and methods. Over a period of years methods change and these changes have come about as a result of one or a variety of circumstances. Mort and Vincent explain causes which are responsible for educational changes.

Two causes are in a large part responsible for the changes that have been taking place in the schools. They are making schools of the

¹ Robert A. Davis, Educational Psychology (New York, 1948), p. 65.

twentieth century differ widely from schools designed on the old 1900 model.

The two causes are (1) improved understanding of psychology and (2) improved insight into the nature and needs of society.²

Changes of approach in the educational field are continually being made in light of the major purpose of general education as defined in Science in General Education:

The purpose of general education is to meet the needs of the individual in the basic aspects of living in such a way as to promote the fullest possible realization of personal potentialities and the most effective participation in a democratic society.³

When teachers are familiar with the changes taking place and the purposes of education, and are constantly guided by socially accepted values and beliefs, they can interest students in seeing the need for learning and challenge them to make wise decisions as a result of classroom and related experiences.

Contacts with many teachers and college instructors lead one to assume that many are unaware that a change has taken place in educational thinking. The change from the "funnel" method of teaching means that the teacher no longer assumes that his sole function is to give out facts and that the student is to receive these facts with no knowledge of their application to the solution of the problems students and their families may be having or to the need for changing their way of living.

² Paul R. Mort and William S. Vincent, Modern Educational Practice (New York, 1950), p. 13.

³ Comm. on Function of Science in General Education, Science in General Education (New York, 1938), p. 23.

Studies have shown that more effective and rapid learning takes place when both teacher and student are aware of needs and understand the direction to be taken in any given learning experience.

When knowledge is related to a previous experience which the individual has had, or one with which he is familiar, then the situation takes on an entirely different interpretation and may become useful as well as more meaningful. Certainly teaching cannot change the behavior of an individual if it has no meaning. This is in line with the thinking of Smith and Tyler who have defined the purpose of education as:

The fundamental purpose of an education is to effect changes in the behavior of the student, that is, in the way he thinks, and feels and acts. The aims of any educational program cannot well be stated in terms of the content of the program or in terms of the methods and procedures followed by the teachers, for these are only means to other ends. Basically the goals of education represent these changes in human beings which we hope to bring about through education. The kinds of ideas which we expect students to get and to use, the kinds of skills which we hope they will develop, the techniques of thinking which we hope they will acquire, the ways in which we hope they will learn to react to esthetic experiences - these are illustrations of educational objectives.⁴

Teachers at the secondary level need to help students to realize that education may promote better home and family life, and that this is the primary purpose of teaching home economics. This area of the high school curriculum has grown out of the need for solving family problems. Johnie Christian agrees with this point of view:

Growing out of the needs of families and because of the problems they face, a whole area of education has come. This we call home economics or, in some instances, homemaking education. In most of our cities small towns and rural communities, home economists are available to help individuals and families deal with problems of homemaking. There are teachers in public schools teaching homemaking to both boys and girls. There are adult leaders and extension workers helping men and women solve problems that center around family life. There is a

⁴ Eugene R. Smith and Ralph Tyler and the Evaluation Staff, Appraising and Recording Student Progress, (New York, 1942), pp. 11, 12.

growing emphasis at all levels and in all areas upon family centered programs. That is to say, problems of food, clothing, housing, and money are not dealt with in isolation but as family life problems which cut across several areas and which may be attacked in a variety of ways because people themselves are individuals and face problems in unique ways.⁵

Educators must recognize that students have a wide range of interests and abilities in solving family life problems which are due in part to the great variation of family background. The pupil is an individual and he, too, must learn to fit into society. Mort and Vincent have suggested not only that people must be recognized as having individual differences but also the need for having a cooperative society in which to live. They say that:

The resolution of differences is the greatest task today. Individuals differ; so do groups; so do nations. However well we take account of individual differences we must and in a new way take account of individual and group similarities, in order to go about the task of fitting individuals into a cooperative society.⁶

Recently home economists have used a new phrase to describe this program. This new term is "family centered education." It considers the needs of the individual and his family. Esther McGinnis has clarified this concept in the following statement:

Family centered education takes account of the cultural level or background from which the husband and wife come and the one to which they now belong. Many studies show a wide range of differences in the day-by-day living of families, conditioned by the group to which they belong. Students bring these differences with them to the classroom and laboratory. What they take away is screened through their experiences in their own families.⁷

Because of family tradition and customs, students come to the teacher with different attitudes, standards of living, family patterns

⁵ Johnie Christian, "Home Economics Today," Journal of Home Economics 4 (June, 1952) p. 405.

⁶ Paul R. Mort and William S. Vincent, Modern Educational Practice, p. 406.

⁷ Esther McGinnis, "Family Centered Teaching," Journal of Home Economics, (January, 1952).

and needs. Trying to meet the needs of the individual is indeed a challenge to the wide awake teacher in her effort to do effective teaching. Teaching will not only be more interesting to the pupil and teacher if it is related to realities of family living of which the individual is a part, but it will be more meaningful and useful. When opportunities are provided to analyze, explore, and experiment in problem situations, real learning may take place.

If students are encouraged to think for themselves, and feel secure in pursuing problems and experiences in school that they feel are real and important for better living, there will no doubt be a keener interest and greater impetus toward learning on the part of the student. If teachers can motivate students to action, then growth may result and there will be a modification of behavior. Stiles and Dorsey further explain this concept:

The degree to which an individual learns depends on the drives or motives that impel him to action. Only in rare instances may individuals who lack motivation learn effectively. Learning may be regarded as a process that is continually modifying the behavior pattern of the individual. Motivation supplies a dynamic urge that makes an individual wish to take part in learning activity. Without some type of motive, learning experiences are likely to be artificial and uninteresting and hence ineffective.⁸

More effective work can be done by the student if he has a part in setting goals and planning ways in which these goals may be realized. This brings a better mutual understanding on the part of the teacher and student, and a greater desire to work together toward chosen objectives. Before definite goals may be set, the student and teacher must recognize that the student probably has some knowledge of, or ability in, the area

⁸ Lindley J. Stiles and Mattie F. Dorsey, Democratic Teaching in Secondary Schools (Chicago, 1950), p. 180.

being taught and that this nucleus is the basis upon which to build. When the pupil obtains insight into his own needs, it will frequently be possible to guide him in stating the goals which he desires and needs to achieve. No doubt many people in the field of education would agree with Robert A. Davis as he explains how learning takes place most effectively.

Pupils react to learning materials to best advantage when they can interpret them readily, endow them with meaning, and find in them a contribution to their personal interests and needs.⁹

When classroom experiences are planned to help solve realistic problems the student is guided in developing insight and judgment needed for meeting his needs and therefore may be expected to more nearly realize his personal potentialities.

Since the purpose of this study was to show ways in which learning may be made an interesting meaningful and useful venture through the use of experiences that help the individual, it seemed necessary to devise ways for helping students (1) to recognize what they already know, (2) to work with the teacher in acquiring information and experiences which he does not have but needs to have in solving problems, (3) to receive from the teacher and use all available means to add to his present background (4) to attack and solve the problems he has recognized (5) to plan with the teacher in setting up goals and working cooperatively, and (6) to develop the ability to apply principles he has learned in life situations.

Studies made in recent years by Oklahoma home economics teachers indicate that they accept such a philosophy. Neva Johnson was concerned

⁹ Robert A. Davis, Educational Psychology, (New York, 1948), p. 181.

with the need for developing broad generalizations in relationship to the place of thinking in the educational process. She considered it important that teachers recognize that "learning is more effective when the student is led to develop the principles involved in a situation and to apply them in actual use."¹⁰

She concluded that guidance of the student in such learning requires that the teacher apply the process of reflective thinking in teaching. In order that the teacher may help the student to develop the ability to think she analyzed the needs of the teachers themselves:

1. To know how to think.
2. To be able to recognize the problems involved in the areas in which they teach.
3. To study continually, because accepted facts, principles, and generalizations, as well as the method of teaching are ever changing.
4. To make a continuous effort in trying to state facts, generalizations, and principles.
5. To know how to apply the process of reflective thinking when they teach.
6. To know how to apply facts and principles to the solving of problems.
7. To be able to develop and apply generalizations in similar situations.
8. To develop the ability to recognize, formulate, and use generalizations so as to reduce the amount of facts as such to be learned.¹¹

Verla Oldham Allen's study summarized broad psychological principles that help a teacher to understand how an individual learns.

Individuals learn as a whole organism with the intellectual, emotional, and physical sides all interacting. A student cannot sit rigidly straight and quiet and learn effectively facts which have no interest for him and are not interrelated with his problems - the body rebels, the emotions rebel, and the mind cannot function satisfactorily. . . . They learn through experiences which are related to their everyday problems in living much more effectively than through the sole study of subject matter. Individuals retain longer those things taught as principles and

¹⁰ Neva L. Johnson, Application of the Thinking Process in The Teaching of Homemaking, (Thesis), p. 37.

¹¹ Ibid., pp. 37, 38.

generalizations than specific facts, especially when the learning experiences requires the application of principles. A situation is more conducive to learning if an atmosphere of friendliness and trust prevails among all individuals present.¹²

There are many methods which may be used for finding ways of meeting pupil needs. Allen reported ways that were being used by teachers in Oklahoma for locating needs in homemaking classes.

1. Recognizing problems and needs which are brought up or recognized as a result of class discussion.
2. Observing student in class.
3. Planning with students and parents.
4. Recognizing needs pointed up in written papers.
5. Understanding the over-all needs of the particular age group.
6. Locating needs through questions asked and suggestions made by students.

Methods other than classwork which may be used to determine student needs are:

1. Utilizing conferences with students, other teachers, administrators, parents, and other persons in the community.
2. Making home visits.
3. Working with students in planning, carrying out, and evaluating home projects.
4. Helping students with activities and program of Future Homemakers of America.
5. Working with adults.
6. Participating in community life and organizations.
7. Observing people and conditions in community.
8. Observing students in homemaking and other classes.
9. Becoming more familiar with problems of individuals by working with Parent Teachers Association, health and other clinics, and open house or parent night; by reading the local publications and by participating in extracurricular school activities or other outside activities.¹³

Growth takes place through the process of identification, expanding, differentiating, and integrating experiences. These experiences should be related to a previous activity. In a study made by Malloy she suggests:

¹² Verla Oldham Allen, A Proposed Instrument for Locating Student Needs and a Survey of Methods Used, (Stillwater, 1950) (Thesis), pp. 7, 8.

¹³ Ibid., pp. 61, 62.

Instruction in home economics should be based upon the previous experiences, understandings, and skills of the student. Progress can be made and measured if both the student and teacher recognizes 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 then student difficulties are recognized and remedial measures applied.¹⁴

Preplanning on the teachers part will add both interest and enthusiasm to the learning process when the pupil feels he is being considered as an individual and his problems are important to others. The teacher, therefore, needs to devise a means of finding the status of the pupil as well as knowing what problems he is being confronted with at the present and the predictable future ones. The student needs to be guided in locating or determining his own status of growth so he can gain satisfaction from accomplishment.

Frizzell found that pupils have a wide range of ability and concluded that a part of the teachers task is suggesting or planning experiences which will promote growth within the individual, meet his needs, and take into account the range of abilities.

Teachers should not assume that all students are equally capable. Often they can help students get under way in learning new tasks by first testing their skills in some simple and readily completed laboratory activity to ascertain previous experience and knowledge. When through such activities students can actually compare their abilities with those of others in their own group they tend to do a better job in selecting and planning their learning experiences. In such tests for basic skills and abilities students should be encouraged to make complete responses, even though their efforts are characterized by omission and error. When permitted to test ability by actual laboratory work, students are enabled to familiarize themselves with the overall picture and thereby to secure a basis for understanding the details and structure of learning experiences which normally come later.¹⁵

¹⁴ Leola Patton Malloy, The Value of Pretests in Clothing Instruction as Determined by Experiences at Stillwell High School, (Stillwater, 1951) (Thesis), p. 7.

¹⁵ Martha Jane Frizzell, A Proposed Instrument for Determining Student Difficulties in Alva High School Advanced Homemaking Classes, (Stillwater, 1950) (Thesis, p. 8.

Lewis used a practical test in ninth grade clothing classes. A summary of results made it possible to do teacher-pupil planning and centered learning experiences around common problems found within the group. After using this method of approach, she concluded that:

When teacher and pupils work together toward common goals, it is believed they will plan for the material changes and conditions that make for maximum efficiency in classroom procedure. When such conditions prevail there is a marked change in student's attitude toward homemaking, teachers, and classmates. There is an atmosphere of cooperation, of enterprise and of achievement. Even the most casual observer can note that growth is being made in democratic living. Such change is noted also in relationship with other teachers, and departments, including the administration. The entire school is aware that a very potent leaven is at work.¹⁶

These studies indicate that homemaking teachers in Oklahoma are aware that they need to continue planning their work to be taught at a particular grade level in light of the need, and ability of the individual, and that they must assume responsibility for helping to create a desire for learning on the part of the individual.

The experiences of Allen, Lewis, Frizzell, Malloy and Johnson provided the general idea and incentive for utilizing their experiences and some of their techniques in teaching tenth and eleventh grade students in the senior high school at El Reno, Oklahoma. The writer felt she was not doing as effective teaching in the clothing area as she believed to be both desirable and possible. She felt that she was not meeting the needs of her pupils because she knew very little about their needs or abilities.

Conversations with high school students revealed some challenging inferences (1) in many cases she was teaching facts not pupils,

¹⁶ Odetta B. Lewis, Application of an Accepted Philosophy to the Teaching of Clothing, (Stillwater, 1950) (Thesis), p. 89.

(2) pupils had not been recognized as being different in ability to learn and need for learning, (3) the teacher needed to know the status of the pupil in order to have a basis for effective teaching, (4) the teacher needed to know how to help pupils to recognize the need for growth, (5) the teacher needed to know how to organize her teaching to meet the individual needs of students, and (6) the teacher needed to learn how to utilize her time more effectively.

The area of clothing construction was selected for this specific study.

Rathbone and Tarpley well summarized the needs which motivated the study:

Courses in clothing construction can make a unique contribution toward an individual's ability "to acquire and use the skills and habits involved in critical and constructive thinking" which is one of the purposes of higher education as stated in the 1947 Report of the President's Commission on Higher Education. However, if clothing construction courses are to assume their share of responsibility in attaining the above objective of general education, some revisions in the traditional methods of teaching clothing are necessary.

One serious handicap in the method commonly used is the little account taken of the abilities, previous experiences and needs of the individual, despite the fact that life situations demand of the individuals that they be able to make plans, carry the plans through to completion and evaluate progress objectively.

The background of members of the group may vary from the unexperienced girl who "can't thread a needle" to the one who makes most of her clothing.

The procedure is that the teacher works with each student, assisting her in setting up or defining her goals or objectives, in the light of her past experiences and future plans. The teacher and student together compile a list of learning experiences which will help the individual attain her objectives.¹⁷

From this article and the studies made by Oklahoma homemaking teachers, the writer believes that pupils and teachers should have a means

¹⁷ Lucy Rathbone and Elizabeth Tarpley, "Student and Teacher Cooperation in Clothing Construction Class," Journal of Home Economics (Febr. 1952), pp. 101, 102.

of recognizing the pupil's status and some of his needs. When these have been recognized they should be used as nucleus to plan cooperatively classroom and related experiences which will meet some of the present and probable future problems. When abilities and background are taken into account, learning will be more meaningful and useful.

PART II

USE IN PRETESTING DEVICES IN DETERMINING INDIVIDUAL STATUS IN SKILLS AND UNDERSTANDINGS IN CLOTHING CONSTRUCTION

This study was undertaken because of the need for finding better ways of helping students to recognize their status of attainment as a nucleus for planning additional work in clothing construction. It was felt that if students could recognize their status and abilities and could participate in planning learning experiences to meet the needs they discovered that more real progress might be made.

The study was conducted during the school year of 1952-53 in the Homemaking Department of the High School in El Reno, Oklahoma. El Reno is located in the central part of Oklahoma with a population of approximately 13,000. The community is largely agricultural. Thirty five percent of the students who attended El Reno High School come from rural areas. The remaining sixty five percent come from homes whose principal source of income is from agriculture. The Rock Island Railroad, the Federal Reformatory, and the wheat mills are industries upon which many of the families are dependent for living.

The town provides a grade school and high school for negroes, a parochial school, five elementary schools, one junior high school and a central high school. Many of the students now enrolled in high school have received their education within this school system. These schools strive to promote democracy in every way possible and the individual is the major concern of each teacher. A statement of general purposes of the public schools indicated the philosophy of the administration, the

members of the community, and the teachers:

In a good school the atmosphere is relaxed and the teacher knows when a student needs encouragement, stimulation, challenge, or consolation. The master teacher is an observer and a guide. He tends to do little talking and questioning; but, having set up an environment to foster the growth of his pupils, he is ever alert to help them over the rough spots. The good teacher is an artist in making use of the school or classroom environment. At the same time his techniques are based on the findings of the sciences dealing with human beings. The teacher's attention is on persons, rather than percentages, but the welfare of the group is not sacrificed for an individual.¹⁸

This philosophy also takes into account individual differences in the process of growth, and the responsibility of the teacher in this respect.

Growth is a continuous process and a slow one. Actually, no two children grow exactly alike. In a good school each child progresses according to his own ability and the teacher is aware of each child's needs and interests. The teacher meets his students where he finds them as far as they can go, trusting that the next teacher will carry on from there. This not only makes for more efficient education; it relieves the children from pressures that creates emotional problems and it keeps alive interest in learning. Growth occurs as a whole. Character, mind, and body are interrelated. Children learn when conditions within them are ripe for learning and when teachers establish a favorable environment for this learning.¹⁹

In the El Reno High School, homemaking is one of the many courses taught. Four consecutive years of class work are offered. These are elective for girls through their four years of secondary education. Homemaking I is offered to Freshmen, but Sophomores, Juniors, or Seniors may enroll if they have failed to include it in their curriculum during earlier years. Homemaking II is offered to Sophomores, but Juniors and Seniors may also enroll if they have had Homemaking I. The Homemaking III classes are made up of Juniors, and Seniors who have previously had two years of homemaking in high school.

¹⁸ Some Guiding Principles for Teachers Part II (El Reno, 1950-51), p. 1.

¹⁹ Ibid., p. 2.

This study was limited to students in Homemaking II and III classes taught by one of the two homemaking teachers in the high school homemaking department. Students in Homemaking II had previous experiences in simple clothing construction in the ninth grade but both the teacher and students agreed that they needed to know what abilities had been acquired in clothing construction as a basis for planning the semesters work. To secure this information two types of test were administered. The tests were presented before the classroom and related experiences were planned and were used as pretests. Their purpose was to discover some of the abilities in clothing construction as a guide to be used in planning additional experiences to meet present and future needs. Such a procedure was in agreement with Spafford's idea that:

Pretesting, formal or informal seems desirable in order that students and teacher recognize the place where learning should begin. Fixed standards of achievements are desirable only when set by the individual or when a certain level of accomplishment is essential for carrying out a later activity or for success on a job.²⁰

Two types of pretests were used in Homemaking II and Homemaking III classes. One type of test for Homemaking II was designed to discover laboratory skills with practical application to the making of a place mat according to directions. This same type of laboratory skill test was presented to Homemaking III with practical application to hemming and stitching a pocket on a piece of cloth. Other types of clothing construction tests used with each class were paper and pencil test designed to reveal basic information acquired. The forms used included true-false, check list, multiple choice, and essay.

²⁰ Ivol Spafford, A Functioning Program of Home Economics (New York, 1940), p. 74.

HOMEMAKING II

Laboratory Skill -- Making a Place Mat

In the first pretest presented to Homemaking II students, written directions were given to make a place mat of a specific size, hemming the sides and fringing the ends according to instructions. These directions follow on page 28. The purposes of this test were to:

1. Help students recognize strength and weaknesses in clothing construction and in following directions.
2. Find students ability in following written directions.
3. Find students ability in adjusting a sewing machine.
4. Find ability in interpreting directions.
5. Find ability in stitching straight.
6. Find ability in measuring correctly and stitching on the amount measured.
7. Find ability in interpreting directions as hemming sides and fringing ends.

Each class member was given comparable supplies, the same directions and similar equipment with which to work. Sewing machines were shared by two girls and approximately the same amount of working space was provided for each student. Two class periods were devoted to this activity. Additional instructions were given when interpretation was necessary, but no teacher assistance was provided during the activity.

When the place mats were completed it could be noted that a wide variation in ability was evident:

1. Many students were not able to follow written directions.
2. Many were not able to visualize the finished product without an objective standard.
3. Many had not acquired basic sewing skills.
4. Most of the results lacked neatness.
5. There was evidence of inability to adjust a sewing machine as to length of stitch and tension.
6. Students had not measured accurately.
7. Many could not stitch an even distance from the edge.
8. Few mats were made according to written directions.
9. Few students used good sewing techniques.

Because of these results it was possible for the teacher to recognize the following implications in terms of generalizations for teaching:

1. Written directions unless carefully illustrated have little meaning.
2. Neatness is a habit that many students have not acquired.
3. Review on sewing machine adjustment is usually necessary.
4. Students need to be taught how to measure accurately.
5. Students seem to need additional help on the meaning of words.
6. The use of illustrative material saves time and helps to clarify directions.
7. While certain skills had been used in previous clothing construction work, many need to be reviewed and explained more in detail if good workmanship is to be produced.
8. Teacher and student need to prepare illustrative material that would be available for student examination and use in helping students to overcome special difficulties in minimum amount of time, in such processes as:
 - a. Stitching an even distance from the edge.
 - b. Turning a corner.
 - c. Spacing gathers in material.
 - d. Manipulating material.
 - e. Using equipment (thimble and needle).
9. It is reasonable to expect that there would be many differences in individual abilities within a class, therefore,
 - a. students should be encouraged to locate their difficulties and to overcome them;
 - b. students should be encouraged to progress at their own rate of growth and to select problems for study which they are capable of executing.

From the results brought to light through this pretest it was evident that much frustration could be avoided if learning experiences were planned when a simple garment was being made. It was clear that when specific abilities had been established, and others recognized as not having been acquired, that it was both possible and desirable to use this information in planning for the future.

Basic Information Pretests

The next three tests presented to Homemaking II students were paper and pencil test designed to test sewing skills in assembling a dress: clothing construction supplies; and seams, pattern markings and fitting. Students were given directions which included the purposes of test, form of test, directions for checking and statements to be checked. Each girl was given the time she needed to think through the pretest before marking it.

TEST I

Check List--Sewing Skills Used in Assembling a Dress

The first test may be found on page 30, its purposes were to:

1. Recognize skills that had been acquired in previous clothing construction classes;
2. Find new skills the students would need to acquire;
3. Find skills which students would need to review in terms of newly discovered needs.

After each student had an opportunity to complete this test an analysis of results was made. It showed that:

1. There was a great variation of ability within a class as to skill that individuals thought they had acquired, skills to be reviewed, and new skills to be learned;
2. Some common understandings existed within each class;
3. Additional abilities must be acquired if a garment is to be well constructed;
4. Many of the simple steps in constructing a garment had not been learned;
5. Many students had spent a year or more in homemaking classes without learning how to use some of the basic skills;
6. Students recognized many of their difficulties and saw the need for making improvement;
7. Teacher and student needed to plan together ways to achieve desired goals;
8. Students had more incentive for continued improvement.

Results from the tests revealed certain implications for teaching:

1. Many problems may be involved in the construction of a garment, but work is simplified if techniques are mastered one at a time.
2. When students can recognize their strengths and weaknesses and can eliminate weaknesses, they are ready to learn to use new techniques.
3. When there is a wide variation in ability, teaching may need to be done through small groups that have similar problems.
4. There are many ways of learning new techniques and skills.
5. Techniques used depend on class situations. Ways that have been used successfully include;
 - a. Class demonstrations for benefit of all;
 - b. Class demonstration for small groups of those who have shown that they need a particular type of help;
 - c. The use of class members in demonstrating to or helping others;
 - d. Use of charts showing step by step procedure;
 - e. Examination of completed garments as illustrative material.

TEST II

Check List--Clothing Construction Supplies

The second basic information test is found on page 32 with marking to be made in one of the three columns which were listed as "need help," "do not know," or "known fact." This test was related to the use of clothing construction supplies. The purposes of the test were to:

1. Discover clothing supplies with which the pupils were familiar.
2. Determine what necessary sewing supplies the girls did not know about but needed to learn.
3. Locate sewing supplies which should be demonstrated and used.

After the test was completed and results tabulated, the following conclusions were drawn:

1. Students were familiar with some supplies, but others were foreign to them.
2. Some names of equipment were not recognized by any of the students.
3. Students recognized names of some supplies, but were not acquainted with their use.
4. Students did not always realize importance of right equipment with particular clothing problem.
5. Students could not purchase equipment wisely when they did not understand its proper use.

These results led to the following implications for teaching:

1. Use of sewing equipment should be reviewed before starting a class in construction.
2. Discussion alone is not adequate to meet the need of students, but objective illustrative material should be available and used effectively.
3. Sewing equipment could be purchased more intelligently if purpose and use were fully understood.
4. Since many students are not familiar with a variety of sewing supplies and equipment, it is wise to provide experiences for their examinations and evaluation.
5. Clothing construction might be simplified if appropriate equipment were used.
6. Class work could be more meaningful and useful if students had an opportunity to review what they had experienced in previous clothing work.
7. If buying practices are to be improved, opportunities should be provided for experiences in purchasing needed equipment and supplies.

TEST III

True False--Seams, Pattern Markings and Fitting

The third basic information test was a true-false form on seams, pattern markings, and fitting. A copy of this test may be found on page

34. The test was designed to:

1. Find what steps should be reviewed and suggest new steps in clothing construction.
2. Find what information students had on pattern markings and grain lines.
3. Discover what information students had concerning the value and use of basting.
4. Learn what students knew concerning different kind of seams.

Results from this test revealed the following:

1. Many students were acquainted with the use of pattern lay-outs and knew the first step in assembling a garment.
2. In general students recognized the need for a guide sheet.
3. In general they recognized need for marking grain line and using pattern markings.
4. Some students were not familiar with different kinds of seams.
5. Some were not familiar with beginning steps in assembling a garment.
6. Some were not familiar with the use of grain line in fitting a garment.

These results led to the following implications for teacher and students in specific learning situations:

1. Types of seams and their use needs to be reviewed as a basis for selecting seams for a garment.
2. The use of pattern lay-out may need to be reviewed for some students.
3. The purpose of grain line should continuously be emphasized.
4. The use of pattern markings needs to be clarified.
5. Pattern adjustment needs to be understood as a basis for good fitting.
6. An interpretation and explanation of pattern lay-out should be provided for students who need it.
7. Learning may be more effective if illustrative material on construction of various types of seams is available.
8. The purpose and use of pattern markings and grain line should be explained and demonstrated in necessary detail.

After twelve weeks spent in the activities related to selection and construction of such garments as a simple dress or a blouse and skirt,

students and teacher agreed that it would be interesting to repeat the laboratory skill test and the three basic information tests to see if the tests would show that growth had been made, and to evaluate together the various testing experiences.

The laboratory skill test of making a place mat was presented in a different manner than that used previously. The previous testing experience revealed the need for accepting and working toward a standard. This time a completed place mat, made according to the written directions given each girl, was displayed so they could see and examine it. This eliminated any doubt as to which were sides and which were ends of the mat. Because of the previous learning experiences and because they had a standard to follow, much better mats were constructed. Improvement was noted by teacher and students in the following respects:

1. Sides were hemmed more evenly.
2. Stitches on hems were adjusted more accurately.
3. Ends were fringed according to directions.
4. Measurements were made more accurately.
5. Improvement on neatness of place mat was noted.
6. Directions were followed more accurately.
7. Students expressed a feeling of satisfaction in accomplishment.

When the three basic information tests were repeated, it was interesting to note many comments made as the tests were administered. Students recognized many of the items as having significant meaning where previously explanatory sentences had seemed foreign to them. In general, students recognized they had grown in information and experiences which could help them better their ways of living. These students were now recognizing that their learning experiences had been useful.

HOMEMAKING III

Laboratory Skill--The Pocket Test

The laboratory skill pretests administered to the Homemaking III

given each girl, was displayed so they could see and examine it. This

involved more advanced problems. In Psychology For Living, the author points out that older students will usually learn faster than younger.

The age and maturity of the learner makes a difference. In general the older child will learn more rapidly than the younger. This will be true because the older child is larger and stronger. His brain has grown more and he has more education and experience. Another important factor is interest and effort. On the average, the person who tries harder and works longer will make more progress and make it faster than the one who does not try very hard.²¹

When first pretest given to Homemaking III included hemming the top of a pocket and stitching a square and a round corner of a pocket to a swatch of material. This test may be found on page 36 and its purposes were to:

1. Help students recognize skills and weaknesses in clothing construction.
2. Check ability to follow written directions.
3. Discover ability to interpret directions.
4. Determine ability to adjust a sewing machine.
5. Determine ability to stitch a square corner and a round corner.
6. Check ability to turn under a hem and stitch on the edge.
7. Determine ability to stitch straight.

Each member of the class was given written directions and cotton material to work with. They also had similar equipment to work with as well as approximately the same amount of working space. In some classes sewing machines were shared by two girls and in other classes by three girls. Two class periods were allowed for completing this activity.

The following observations were made:

1. Many students could not interpret directions.
2. Some students had difficulty in visualizing a hem at the top of a pocket.
3. Students had difficulty in stitching a pocket on to the swatch of material.
4. Students did not know how to adjust the sewing machine properly.
5. Students had difficulty in stitching around a curve so frequently converted in to a square corner.

²¹ Herbert Sorenson, and Marguerite Malm, Psychology For Living, (New York, 1948) p. 348.

6. Many hems were not turned evenly.
7. Some students followed directions accurately.

These results led to the following implications for teaching:

1. Written directions need to be supplemented by illustrative material to make teaching more effective.
2. When students have identified their shortcomings in basic sewing skills, they will know where to start working toward improvement.
3. Neatness may not have been acquired because it has not been taught.
4. Even Juniors and Seniors in high school need to learn to read accurately and interpret meanings.
5. Basic skills in clothing construction need to be reviewed by some, even though they had considerable previous experiences in clothing construction.
6. Manipulation of material on the sewing machine had not been achieved by all class members. It was evident that this phase of teaching clothing construction needs to receive more attention.
7. Sewing machine adjustment should be given more attention. Because of many difficulties in sewing machine adjustment were disclosed, it is evident that more attention should be given to eliminate this shortcoming.
8. Constant evaluation and supervision is needed to learn the real abilities of students--some needed additional help in measuring and making an even hem.

Basic Information Tests

Following the laboratory skill test, three basic information tests were presented which were designed to test familiarity with "sewing equipment," "pressing techniques" and "pattern alteration." In all three of these tests, class members were given a mimeographed sheet of paper with questions or statements on them. Each student was given time needed to think through the problems presented and answer to the best of his ability.

TEST I

Essay--Sewing Equipment

The first test was an essay basic information test on sewing equipment. A copy may be found on page 38. The purposes of it were:

1. To discover how familiar students were with sewing equipment needed to construct a garment.

2. To find what uses of new equipment needed to be studied.
3. To find if students could identify pieces of equipment.

Following the test these results could be observed:

1. Students had used and were familiar with some equipment but many terms seemed foreign to them.
2. Pieces of equipment had been used previously but had not been called by their proper names so students could not identify them.
3. All students were not familiar with all equipment mentioned.
4. Equipment could not be used, if student was not familiar with its purposes, even though it could be identified.

The results led to these implications for teaching:

1. Sewing equipment should be available and discussed frequently so that students might become familiar with it.
2. Equipment should be identified correctly and called by name.
3. Demonstration on use of equipment is more effective than verbal direction.
4. Students are more eager to use equipment if they see need for its use.
5. All students were not familiar with all equipment so group activity on common problems would save class time and make the class more interesting.
6. Class work could be more interesting if new equipment were discussed and demonstrated rather than spending time with familiar equipment.
7. Supplies and equipment which simplify clothing construction work should be used to advantage.

TEST II

True-False--Pressing Techniques

The second basic information test was a true false test on pressing techniques. The purposes of the test were:

1. To find what the student needs to know when pressing different fabrics.
2. To discover what information the student has in relation to the effect of heat on different fabrics.
3. To discover what the student knows concerning the use of a pressing cloth.
4. To find what the student knows about pressing on right and wrong side of material.

This test may be found on page 40.

As a result of this testing experience, the following results were noted:

1. Some students had adequate information concerning pressing techniques.
2. A small number of the class members needed to review pressing techniques.
3. Some had not recognized the effect of heat on different fabrics.
4. Some students recognized the need for the use of a pressing cloth.
5. Some did not seem to realize that it made a difference whether material was pressed on right or wrong side.
6. Members of the class were most familiar with pressing cotton, linen, and rayon.
7. Students had some information concerning pressing but found new facts were suggested which might improve the appearance of a garment.
8. Students learned that pressing was an important part of clothing construction.

These results led to the following implications for teaching:

1. Techniques of pressing wool needed to be taught.
2. Pressing techniques should be discussed and demonstrated to be most effective.
3. The variation in temperature of iron for different fabrics requires study, explanation and demonstration.

TEST III

Multiple Choice--Pattern Alteration

The third test was multiple choice on pattern alteration and may be found on page 42. This test was given to:

1. Determine what the members of the class knew about pattern alteration.
2. Help students recognize steps they did not know in altering a pattern.
3. Determine steps which should be reviewed in pattern alteration.

From compiling results of this test it could be concluded that:

1. Class members did not recognize the need for correct alteration.
2. The term "pattern alteration" seemed confusing to students.
3. Students could not visualize pattern alteration.
4. Some students recognized that pattern alteration was essential, but had been using incorrect procedures.
5. Pupils could begin to see the need for proper pattern alteration.
6. Students have pride in well fitted garments, but could not always see the correlation to pattern alteration.

These results led to the following implications and generalizations for teaching:

1. Illustrative material is necessary to teach pattern alteration effectively.
2. Correct pattern alteration should be made when needed for proper fitting.
3. Since pattern alteration is needed by most of the students, fitting problems should be developed with the entire class.

It was agreed by students and teacher that these four tests would be repeated so that growth or need for additional learning experiences might be discovered by both student and teacher. After eighteen weeks of clothing construction work, these tests were again presented to the Homemaking III classes.

The laboratory skill pocket test was presented in a different manner than previously, as again the need for a standard was thought advisable. This time it was used, as was also done in the repeated place mat test for Homemaking II, by having a completed pocket made available so each pupil could see and examine it. This was made according to the directions as given to each girl. It eliminated doubt as to the way in which the top hem was made, or placement of stitching of pocket on the piece of cloth. Because of classroom experiences and having a standard to strive toward, it was possible to have the top hem of the pocket well made, curve and square corners stitched more evenly, machine stitches adjusted more accurately, and pockets placed on pieces of cloth more attractively.

When the three basic information tests were repeated, students found many statements with which they were quite familiar, when previously they had not recognized the meaning or correlation to clothing work. This was definite evidence of growth to the student and the teacher.

The method and procedure just described as basic information and laboratory skill pretests are ways of helping student and teacher to identify the status of the student and plan for future experiences.

A summary of factors significant in discovering and meeting needs in clothing construction is shown on the following pages.

The analysis as shown on the charts provided direction for teaching and the learning process becomes more useful, meaningful, interesting and enjoyable to students and teacher.

LABORATORY SKILL PRETEST--MAKING A TABLE OR PLACE MAT

Purpose

To help the student recognize her skills and weaknesses in clothing construction and in following directions.

Materials Needed

1. A piece of cotton material, one-half yard in length, thirty-six inches wide.
2. Small equipment: pins, needles, tape measure, ruler, thread to match color of mat, basting thread and a fully equipped sewing machine.

Directions

1. You will be allowed two hours for this problem--you may or may not finish in the time allowed.

The purpose of this problem is to see in what sewing areas you have skills, where you need help and how well you can follow directions.

You will have a clearer picture of your own strength and weaknesses if you do not have help from anyone while doing this work.

2. You are to construct a table mat, 11 inches by 16 inches and three-fourths inches when completed.
3. Note the time on the paper when you actually begin to work.
4. Steps in making the place mats:
 - a. Straighten the material.
 - b. Cut off the selvage.
 - c. Measure piece of material 12 by 18 inches.
 - d. Pull thread for accurate cutting.
 - e. Cut.
 - f. Measure five-eighths inch on each end for the fringe.
 - g. Pull the thread that is five-eighths inches from the end.
 - h. Pull the second thread.
 - i. Stitch along the line made by pulling the thread.
 - j. Fringe by pulling the thread all the way across each time.
 - k. With gauge measure hem for the sides, one-fourth inch turn under.
 - l. Crease with fingers.
 - m. Measure and crease one-fourth inch for finished hem.
 - n. Pin baste and thread baste hem.
 - o. Machine stitch.
 - p. Finish hem by tying thread or re-stitching.
 - q. Take out basting.
 - r. Press.

Adapted from Odetta B. Lewis, "Application of an Accepted Philosophy To the Teaching of Homemaking," Stillwater, Oklahoma. Agricultural and Mechanical College, 1952.

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Homemaking II

Laboratory Skill Pretest--Making a Place Mat

Purposes

1. Help students recognize strength and weaknesses in clothing construction and in following directions.
2. Find students ability in following written directions.
3. Find students ability in adjusting sewing machine.
4. Find ability in interpreting directions.
5. Find ability in stitching straight.
6. Find ability in measuring correctly and stitching on the amount measured.
7. Find ability in interpreting directions as hemming sides and fringing ends.

Observable Results

1. Many students were not able to follow written directions.
2. Many were not able to visualize the finished product without the objective standard.
3. Many had not acquired basic sewing skills.
4. Most of the results lacked neatness.
5. There was evidence of inability to adjust a sewing machine as to length of stitch and tension.
6. Students had not measured accurately.
7. Many could not stitch an even distance from the edge.
8. Few mats were made according to directions.
9. Few students used good sewing techniques.

Implications for Teaching

1. Written directions unless carefully illustrated have little meaning.
2. Neatness is a habit that many students have not acquired.
3. Review on sewing machine adjustment is usually necessary.
4. Students need to be taught how to measure accurately.
5. Students seem to need additional help on meaning of words.
6. The use of illustrative material saves time and helps to clarify directions.
7. While certain skills had been used in previous clothing construction work, many need to be reviewed and explained in detail if good workmanship is to be produced.
8. Teacher and students need to prepare illustrative material that would be available for student examination and use in helping students to overcome special difficulties in a minimum amount of time, in such processes as:
 - a. Stitching and even distance from the edge.
 - b. Turning a corner.
 - c. Spacing gathers in material.
 - d. Manipulating material.
 - e. Using equipment (thimble and needle).
9. It is reasonable to expect that there would be many differences in individual abilities within a class, therefore:
 - a. Students should be encouraged to locate their difficulties and to overcome them.
 - b. Students should be encouraged to progress at their own rate of growth and to select problems for study which they are capable of executing.

BASIC INFORMATION

Check List--Sewing Skills Used in Assembling a Dress

Purpose

To find what steps of clothing construction the student would like to learn as new steps in terms of meeting their needs and what steps they would like to review.

Directions

Since all of you girls have had some sewing, we are now ready to proceed to a more difficult problem than before. We are really not as concerned with the clothing problem as we are learning new steps which will help you to do sewing at home. Please think through the sewing which you do at home, and then check the steps which you feel will be most useful to you. You will find three columns listed, the "have learned" means you have acquired the skill, the "new skill" means it is entirely new to you and "like to review" indicates you have some information, but would like to learn more or review the steps learned. After these have been checked we will know what steps to include in clothing construction.

	Have Learned	New Skill	Like To Review
1. To stitch straight.			
2. To make darts.			
3. To put in a zipper.			
4. To do a hem.			
5. To join waist and skirt together.			
6. To set in a sleeve.			
7. To gather a skirt.			
8. To make unpressed pleats.			
9. To make box pleats.			
10. To sew on snaps.			

Summary of Factors Significant in Discovering and Meeting Needs in Clothing Construction

Basic Information Pretest--Sewing Skills Used in Assembling a Dress

Purposes

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. To recognize skills that had been acquired in previous clothing construction classes. 2. To find new skills the students would need to acquire. 3. To find skills which the students would need to learn in terms of newly discovered needs. | <ol style="list-style-type: none"> 1. That there was a great variation of ability within a class as to skills that individuals thought they had acquired, skills to be reviewed, and new skills to be learned. 2. That some common understandings existed within each class. 3. That additional abilities must be acquired if a garment is to be well constructed. 4. That many of the simple steps in constructing a garment had not been learned. 5. That many students had spent a year or more in homemaking classes without learning how to use some of basic skills. 6. Students were able to recognize many of their difficulties and see the need for making improvement. 7. That the teacher and student needed to plan together ways to achieve desired goals. 8. Results of the test indicated that student had more incentive for continued improvement. |
|---|--|

Implications for Teaching

1. Many problems may be involved in the construction of a garment, but work is simplified if techniques are mastered one at a time.
2. When students can recognize their strength and weaknesses and can eliminate weaknesses, they are ready to learn to use new techniques.
3. When there is a wide variation in ability, teaching may need to be done through small groups that have similar problems.
4. There are many ways of learning new techniques, and skills.
5. Techniques used depend on class situations. Ways that have been used successfully include:
 - a. class demonstrations for benefit of all.
 - b. class demonstration for small groups of those who have shown that they need a particular type of help.
 - c. the use of class members in demonstrating to or helping others.
 - d. use of charts showing step by step procedure.
 - e. examination of completed garments as illustrative material.

Check List--Clothing Construction Supplies

Purpose: Check information on clothing construction which the student feels he has acquired, to see if facts learned previously should be reviewed, and to learn what new information should be taught.

Directions: Please answer the following thought questions by making a check in one of the columns listed. This will give us an opportunity to know what we have learned, what facts we need to review, and what information we need to learn before proceeding with the purchase of our supplies. This test will not be graded. If in doubt as to whether you understand a particular statement, please check "need help," if the statement is completely foreign to you, check "do not know," and if you are familiar with the sewing supply listed check "known fact."

	Need Help	Do Not Know	Known Fact
1. Size 12 is the same in all patterns you buy.			
2. Purchase your pattern and then study the chart on the envelope in order to know how much material to buy.			
3. Needles are numbered 1, 2, 3, 4, 5, and up to 12.			
4. Cotton thread may be purchased in sizes 8, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 and 150.			
5. Mercerized thread comes in sizes 50-100.			
6. Thimbles come in sizes 1 to 12.			
7. Dressmaker pins are most desirable for sewing.			
8. A tape measure is more useful if numbered on both sides and numbered from different ends.			
9. Needles are bought by name of sharps, ground, downs, crewels, and number in package.			
10. Silk thread comes in all colors with sizes A to E.			
11. A ruler or hem gage with markings of $\frac{1}{2}$ and $\frac{1}{4}$ is convenient for sewing.			
12. Good shears will probably cost more but they will last longer.			
13. A pin cushion is indispensable when sewing.			
14. Skirt markers should be of strong construction and stand firmly on the floor.			
15. Tailors chalk is convenient for transferring pattern markings.			

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Basic Information Pretest--Clothing
Construction Supplies

Purposes	Observable Results
1. Discover clothing supplies with which the students were familiar.	1. Students were familiar with some supplies but others were foreign to them.
2. Determine what necessary sewing supplies the girls did not know about but needed to learn.	2. Some names of equipment were not recognized by any of the students.
3. To locate sewing supplies which should be demonstrated and used.	3. Students recognized names of some supplies, but were not acquainted with their use.
	4. Students did not always realize importance of right equipment with particular clothing problem.
	5. Students could not purchase equipment wisely when they did not understand its proper use.

Implications for Teaching

1. Use of sewing equipment should be reviewed before starting a class in construction.
2. Discussion alone is not adequate to meet the need of student, but objective illustrative material should be available and used effectively.
3. Sewing equipment could be purchased more intelligently if purpose and use were fully understood.
4. Since many students are not familiar with a variety of sewing supplies and equipment it is wise to provide experiences for their examination and evaluation.
5. Clothing construction might be simplified if appropriate equipment were used.
6. Class work could be more meaningful if students had an opportunity to review what they had experienced in previous clothing work.
7. If buying practices are to be improved, opportunities should be provided for experiences in purchasing needed equipment and supplies.

BASIC INFORMATION

Test III True False--Seams, Pattern Markings and Fitting

Purpose: To check on knowledge of seams, pattern markings and fitting and the steps of clothing construction used in making a simple dress. From this pretest it will be possible to know what information should be reviewed and what new steps may be taught. This is to help girls recognize the steps of sewing which they feel secure in doing.

Directions: Below you will please find a true and false test which is to check on the information which you feel that you know, and that which you feel you need to review. Please mark in the blank at the left with a T for statements that are entirely true and an O for those which are false. Read each statement carefully before answering and if you do not understand the question, raise your hand, the teacher will come to your desk.

- ___ 1. Basting is a temporary means of holding two or more pieces of cloth together.
- ___ 2. Slip stitch is one of the most advantageous stitches used in putting hems in a garment.
- ___ 3. A plain seam is made by putting two pieces of cloth together, pressing the seam open and turning under 1/8 inch of each seam edge, stitching along the fold.
- ___ 4. French seams are strong with no visible stitching on the right side.
- ___ 5. A flat fell seam is a strong seam showing three rows of stitching on the right side of the garment.
- ___ 6. Many seam edges and other raw edges are overcast to keep them from raveling.
- ___ 7. It is not necessary to transfer pattern markings for accurate sewing.
- ___ 8. A plan of work thoughtfully made and carefully followed is not necessary to save time or prevent mistakes in sewing.
- ___ 9. The guide sheet which comes with your pattern will be very helpful to you.
- ___ 10. It is not necessary to baste darts before the first fitting.
- ___ 11. Notches on patterns may prove to be very helpful when combining the pieces of the garment.
- ___ 12. To make sure your dress fits well, it is good to try it on and look carefully to see if it needs to be changed in any way before stitching.
- ___ 13. Grain lines have no significance in the fit of a dress.
- ___ 14. Frequent pressing at appropriate times will help you to do neat work and give a garment a more tailored look.
- ___ 15. Darts may be left just basted before stitching the major seams.
- ___ 16. The underarm seam is the place to make most of the changes which are necessary because of irregularities of bust, hips, back and abdomen.

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Basic Information Pretest--Seams, Pattern
Markings and Fitting

Purposes	Observable Results
1. Find what steps would be reviewed and suggest new steps in clothing construction.	1. Many students were acquainted with the use of pattern lay-outs and knew the first step in assembling a dress.
2. Find what information students had on pattern markings and grain lines.	2. In general students recognized the need for a guide sheet.
3. Discover what information students had concerning the value and use of basting.	3. In general they recognize need for marking grain line and using pattern markings.
4. Learn what students know concerning different kinds of seams.	4. Some students were not familiar with different kinds of seams.
	5. Some were not familiar with beginning steps in assembling a garment.
	6. Some were not familiar with the use of grain line in fitting a garment.

Implications for Teaching

1. Types of seams and their use needs to be reviewed as a basis for selecting seams for a garment.
2. The use of pattern lay-out may need to be reviewed for some students.
3. The purpose of grain line should continuously be emphasized.
4. The use of pattern markings needs to be clarified.
5. Pattern alteration needs to be understood as a basis for good fitting.
6. An interpretation and explanation of pattern lay-out should be provided for students who need it.
7. Learning may be more effective if illustrative material on construction of various types of seams is available.
8. The purpose and use of pattern markings and grain line should be explained and demonstrated in necessary detail.

The Pocket Test

Objective: To help students recognize their skills and weaknesses in Clothing construction.

Materials Needed:

1. Material on which pocket is to be applied 8 inches square. Material chosen should be firm and rather easy to handle.
2. Smaller piece for pocket 4 x 6 inches, round on one corner and square on the others.
3. Pins, needles, tape measure, ruler, thread, fully equipped sewing machines.
4. Small piece of paper for noting name and time used.

Directions:

1. You will be allowed two periods for this test. You may or may not finish in the time allowed. The purpose of the test is to see in what sewing areas you have skill and where you need help. You will have a clearer picture of your own strengths and weaknesses if you do not have help from anyone while doing the work.
2. You are to construct a patch pocket by putting the smaller piece on the larger.
3. Note the time on paper provided when you actually begin work.
4. Make the pocket:
 - a. Construct a well proportioned hem for the pocket.
 - b. Turn under the raw edges and baste.
 - c. Place the pocket on the 8 inch square considering the placement in view of the art principles you know.
 - d. Pin and baste the pocket in place.
 - e. Remove the pins and machine stitch the pocket in place. Keep stitching close to the edge of the pocket. Leave the basting in.
5. At the end of the period, pin paper to pocket, giving your name and time.
6. In discussing your product with you, the teacher will cover the following points:
 - a. Length of time used in relation to quality of product.
 - b. Your sense of proportion and balance as shown in placement of pocket on material and size of hem used.
 - c. Your standard of neatness throughout the process.
 - d. The control you have over the sewing machine as shown by evenness of stitching.
 - e. Your ability to follow directions.
 - f. Your knowledge of sewing terms, processes and stitches.

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Laboratory Skill Pretest--The Pocket Test

Purposes	Observable Results
1. Help students recognize skills and weaknesses in clothing construction.	1. Many students could not interpret directions.
2. Check ability to follow written directions.	2. Some students had difficulty in visualizing a hem at the top of a pocket.
3. Discover ability to interpret directions.	3. Students had difficulty in stitching a pocket on the swatch of material.
4. Determine ability to adjust a sewing machine.	4. Students did not know how to adjust a sewing machine properly.
5. Determine ability to stitch a square corner and a round corner.	5. Students had difficulty in stitching around a curve so frequently converted it to a square corner.
6. Check ability to turn under a hem and stitch on the edge	6. Many hems were not turned evenly.
7. Determine ability to stitch straight.	7. Some students followed directions accurately.

Implications for Teaching

1. Written directions need to be supplemented by illustrative material to make teaching more effective.
2. When students have identified their shortcomings in basic sewing skills they will know where to start working toward improvement.
3. Neatness may not have been acquired because it has not been taught.
4. Even juniors and seniors in high school need to learn to read accurately, and interpret meanings.
5. Basic skills in clothing construction need to be reviewed by some, even though they had considerable previous experiences in clothing construction.
6. Manipulation of material on the sewing machine had not been achieved by all class members. It is evident that this phase of teaching clothing construction needs to receive more attention.
7. Sewing machine adjustment should be given more attention. Because many difficulties in sewing machine adjustment were disclosed, it is evident that more attention should be given to eliminate this shortcoming.
8. Constant evaluation and supervision is needed to learn the real abilities of students--some needed additional help in measuring and making an even hem.

BASIC INFORMATION

Test I Essay---Sewing Equipment

Purpose: To find out how familiar students are with the sewing equipment needed to construct a garment, and what sewing supplies they need to become more familiar with in order to simplify the construction of their garment.

Directions: Below you will find listed several discussion questions concerning needed sewing supplies and their use when constructing a garment. Please read the questions carefully and answer as adequately as possible with the information which you have learned. The questions which you are not familiar with will be discussed at a later date, and we will also review those which you feel that you would like a little more information about.

1. What is the difference between tailor tacking and tailor chalk?
2. What do we mean by a "skirt marker"?
3. How does a sleeve board differ from an ironing board?
4. What is a "tailor's cushion" or as it is sometimes called a "ham"?
5. What do we mean by a "velvet or needle board"?
6. Are pressing cloths necessary?
7. How do we use "transfer paper" in sewing?
8. What is a tracing wheel?
9. What do we mean by "sharp," ground downs," and "crewel" needles?
10. Is a pin cushion essential to sewing?

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Basic Information Pretest--Sewing Equipment

Purposes	Observable Results
1. To discover how familiar students were with sewing equipment needed to construct a garment.	1. Students had used and were familiar with some equipment but many terms seemed foreign to them.
2. To find what uses of new equipment needed to be studied.	2. Pieces of equipment had been used previously but had not been called by their proper names so students could not identify them.
3. To find if students could identify pieces of equipment.	3. All students were not familiar with all equipment mentioned.
	4. Equipment could not be used, if students were not familiar with its purposes, even though it could be identified.

Implications for Teaching

1. Sewing equipment should be available and discussed frequently so that students might become familiar with it.
2. Equipment should be identified correctly and called by name.
3. Demonstration on use of equipment is more effective than verbal direction.
4. Students are more eager to use equipment if they see need for its use.
5. All students were not familiar with all equipment so group activity on common problems would save class time and make the class more interesting.
6. Class work could be more interesting if new equipment were discussed and demonstrated rather than spending time with familiar equipment.
7. Supplies and equipment which simplify clothing construction work should be used to advantage.

BASIC INFORMATION

Test II True False—Pressing Techniques

Purpose: To see what pressing techniques are familiar to the student, or what the student would need to know in pressing when making a garment.

Situation: The girls are ready to start their clothing construction work, but to date have not recognized all of the information needed about pressing their material. Some of them did not realize that different techniques were used with different fabrics, and since there will be some variation in fabrics used in the class, it is well to check on all of them.

Directions: Below you will please find a list of true and false statements concerning problems of pressing which might come up in the construction of a garment. Some of these you might not think of, if it were not called to your attention. As a result of our evaluation it may be possible to use class time to a better advantage. Please read the statements carefully and mark T for those that are entirely true and O for those that are false.

1. Some colored cotton and linen fabrics change color slightly during pressing, but the original color returns later.
2. A shining surface is produced when pressing cotton on the wrong side.
3. The same temperature of an iron may be used on linen and rayon.
4. Heat does not cause silk to lose body or life.
5. In general, wool should be pressed on the wrong side, and when possible a heavy pressing cloth should be used between the wool and iron.
6. Velvet, velveteen and napped fabrics need a special technique when being pressed.
7. Knitted fabrics are especially elastic and liable to stretch, so they should be pressed in the direction of the lengthwise ridges, or wales.
8. Moisture should not be left in wool when pressing.
9. Silk is not apt to waterspot if a wet cloth is placed on it.
10. Because acetate materials tend to shine when pressed, care should be taken to avoid rubbing iron back and forth.

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Basic Information Pretest---Pressing Techniques

Purposes	Observable Results
<ol style="list-style-type: none"> 1. To find what the student needs to know when pressing different fabrics. 2. To discover what information the student has in relation to the effect of heat on different fabrics. 3. To discover what the student knows concerning the use of a pressing cloth. 4. To find what the student knows about pressing on right and wrong side of material. 	<ol style="list-style-type: none"> 1. Some students had adequate information concerning pressing techniques. 2. A small number of the class members needed to review pressing techniques. 3. Some had not recognized the effect of heat on different fabrics. 4. Some students recognized the need for the use of a pressing cloth. 5. Some did not seem to realize that it made a difference whether material was pressed on right or wrong side. 6. Members of the class were most familiar with pressing cotton, linen and rayon. 7. Students had some information concerning pressing but found new facts were suggested which might improve the appearance of a garment. 8. Students learned that pressing was an important part of clothing construction.

Implications for Teaching

1. Techniques of pressing wool needed to be taught.
2. Pressing techniques should be discussed and demonstrated to be most effective.
3. The variation in temperature of iron for different fabrics requires study, explanation and demonstration.

BASIC INFORMATION

Test III Multiple Choice--Pattern Alteration

Purposes: To determine the information learned on pattern alteration and to help the student recognize the steps he does not know in altering a pattern. From these questions it is hoped that attention will be called to alterations which had not previously been thought of.

Situation: Janie has gained in weight until she is unusually large through her hips. Ordinarily she would wear a size 12, but due to this excess weight she wears a pattern in size 14-16. Neither pattern fits her correctly and she is going to have to make some alterations. From these problems, perhaps you may give her some suggestions.

Directions: Below you will find some statements in regard to altering a pattern. Will you please read these carefully and check the one which would make the statement complete?

1. Janie needs to enlarge the skirt pattern through the hips, should she--
 - a. _____ Add to the side seams
 - b. _____ Add to the middle seam
 - c. _____ Slash the pattern through the grain line and add equal amounts to each side of the skirt.

2. Because of using a larger pattern she has been given additional length which she doesn't need. To shorten the skirt pattern should she--
 - a. _____ Take it off of the waist
 - b. _____ Shorten it at the bottom
 - c. _____ Take a tuck in pattern below hip line
 - d. _____ Take a tuck in lower 1/3 of pattern.

3. To shorten her blouse pattern should Janie--
 - a. _____ Take it off of the bottom of the blouse
 - b. _____ Take it off the shoulder
 - c. _____ Take it off above bust line
 - d. _____ Take it off below bust line.

4. To enlarge the blouse pattern should Janie--
 - a. _____ Add to the seams on each side
 - b. _____ Add at the center fold
 - c. _____ Cut lengthwise line from shoulder to lower edge of pattern and add to each shoulder.

5. Janie's dress pattern is too wide across the shoulder, should she--
 - a. _____ Take it off center of shoulder seam and taper it down
 - b. _____ Take excess off neck seam
 - c. _____ Take excess off shoulder seam at sleeve.

Summary of Factors Significant in Discovering and Meeting
Needs in Clothing Construction

Basic Information Pretest--Pattern Alteration

Purposes

1. Determine what the members of the class knew about pattern alteration.
2. Help students recognize steps they did not know in altering a pattern.
3. Determine steps which should be reviewed in pattern alteration.

Observable Results

1. Class members did not recognize the need for correct alteration.
2. The term pattern alteration seemed confusing to students.
3. Students could not visualize pattern alteration.
4. Some students recognized that pattern alteration was essential, but had been using incorrect procedures.
5. Students could begin to see the need for proper pattern alteration.
6. Students have pride in well fitted garments, but could not always see the correlation to pattern alteration.

Implications for Teaching

1. Illustrative material is necessary to teach pattern alteration effectively.
2. Correct pattern alteration should be made when needed for proper fitting.
3. Since pattern alteration is needed by most of the students, fitting problems should be developed with the entire class.

PART III
INTERPRETATION OF RESULTS AND THEIR
EDUCATIONAL SIGNIFICANCE

The purpose of the study described was to show one way in which the student and teacher may work together toward ascertaining the status of the student and plan needed experiences for solving clothing construction problems. These findings may be used as a basis for starting classroom work and proceeding to more difficult situations which will meet the present and future needs of the student. Through such cooperative planning, the learning situation may prove to be an interesting, meaningful and useful venture. Guidance by the teacher is needed to give insight into new learning experiences and to help the student become conscious of growth made in the area of clothing. Evidences were found that there were individual differences in ability and needs within specific classes even though many of the students had received similar previous training. Through this method of establishing a nucleus for the semesters work, it was possible to clarify goals with the student and to proceed from their present status to the acquisition of new abilities needed by each individual. By repeating tests as described, it was possible to find definite evidences of growth on the part of each student.

Conclusions

For experiences to be effective for maximum growth, it was concluded that teacher and student needed to:

1. Recognize that individuals differ in abilities and in needs.
2. Find the status of the student and use this as the nucleus from which to proceed toward more difficult problems.

3. Plan cooperatively in setting up goals and objectives which are possible of achievement.
4. Make materials available which will promote growth in areas that have not previously been recognized by students.
5. Use learning experiences that are realistic in solving present and future problems.

Implications for Teaching

Pretesting programs can be interesting, meaningful and useful to both student and teacher. In such a program--

1. Students can recognize some of the abilities they have in the area being taught and realize how they can serve as a nucleus for future planning.
2. Students can make more accurate interpretation of their own ability and state of progress when given an opportunity to help with the planning of learning situations.
3. There will be a difference in growth in individual students because of need, ability, and individual differences.
4. Students are willing to cooperate in pretests situations when friendly relationships exist.
5. Students are willing to work when they can achieve something they recognize as worthwhile.
6. Students can set desirable goals for themselves when given insight into their needs and abilities.
7. Students can recognize evidences of growth when pretests are repeated.

From experiences gained in this study, the following generalizations may serve to encourage a more effective teaching-learning program.

1. When laboratory skill pretests are used, better results may be expected if a standard is available to students during the first pretesting period.
2. Results of pretests provide objective evidence for use in defining individual and class goals.
3. Through the use of the results of pretests effort can be directed toward more definite purposes if time is allowed for the achievement of goals students have recognized as needed and worthy.
4. Learning is more effective when individuals are encouraged to appraise their own growth and development.
5. Student-teacher planning may be facilitated in units other than clothing when pretests are provided and the results analyzed as a means of discovering a starting point for planning further goals.

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