

AN EXPLORATORY STUDY OF GROUPING A BEGINNING  
CLOTHING CONSTRUCTION CLASS BY RESULTS OF  
A CLOTHING CONSTRUCTION ABILITY PRETEST  
AND FINGER DEXTERITY QUESTIONNAIRE

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## CHAPTER I

### INTRODUCTION

American education is adjusted to meet society's need for education of the majority. Homemaking classes in high schools place emphasis on developing the individual. Clothing construction classes offer not only an ideal situation for individual work with students but present a definite need for individual planning and learning experiences. No two students in a class have the same muscular coordination, past experiences, or interests nor can they work at the same rate of speed. While no two students have the same abilities, there are enough similarities within a class to make groupings possible. The teacher may then adapt her instructions to the specific needs of each group.

Brown and Haley said:

Suitable projects should be outlined, including difficult and easy ones, some of which will take but a minimum amount of information and skill and some of which will require supplementary information and a high degree of skill. .... The class should be guided in their choice of projects according to their varying abilities. The selection of projects gives an automatic grouping which enables the teacher to take care of differences in ability without giving individual instruction.<sup>1</sup>

The average classroom teacher of ninth grade homemaking students has a group with varying abilities and experiences. It is important that class planning and management is carefully executed so as to promote

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<sup>1</sup>Clara M. Brown and Alice Haley, The Teaching of Home Economics (New York, 1928), p. 252.

growth and development of each individual class member.

#### Statement of Problem

The study was an exploratory project in clothing in an attempt to determine the effectiveness of grouping ninth grade students in a beginning clothing construction class according to scores made on a clothing construction pre-test and the results of a finger dexterity questionnaire. The clothing construction pre-test and the finger dexterity questionnaire developed by Chadderdon, Croft and Hatch<sup>2</sup> were the instruments used. Groupings were made of students with similar clothing construction abilities according to the test and questionnaire results. Clothing construction problems with graduating difficulties of techniques were attacked by the different groups to attempt to determine if:

1. More learning would take place.
2. Higher degree of interest could be maintained.
3. Class organization could be improved.
4. Management of teacher's and student's time could be improved.

#### Purposes of the Study

The writer has sincere convictions about the importance of clothing to the adolescent girl. Interest of clothing is at its peak during adolescence when the need for social acceptance is great. A clothing course may arouse an interest of students in constructing, purchasing, and caring for clothing that can be of great value to them and to their

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<sup>2</sup>Hester Chadderdon, Joyce Croft, and Carol Hatch, Estimating the Clothing Construction Ability of Ninth Grade Pupils, Home Economics Research, Iowa State University of Science and Technology (Ames, Iowa, Reprint, 1964).

families. With the right kind of instruction the teacher can see students developing and enjoying the skills needed to construct garments of good design, material, and workmanship. The student will learn more and develop or retain her liking for sewing if the chosen garment is fitted to her ability level. She will likely have a greater sense of achievement if the chosen pattern and fabric are neither too difficult nor too easy for her.

The writer believes that pre-testing for clothing construction ability will:

1. Help the teacher determine the experience her students have had.
2. Give a basis for teacher-pupil planning.
3. Be helpful in evaluating the students' progress at the end of the unit.
4. Stimulate interest of the students.
5. Help the students realize their needs.
6. Serve as a guide for counseling the individual.

It was believed that the use of ability tests provide a means for the teacher to group students with similar construction problems thus making it possible to give demonstrations and use other means of instruction profitable to all in a group. It was also believed that such grouping would:

1. Keep interest from waning in the individual girl.
2. Make learning for all at one level in harmony with the ability of individual students.
3. Allow individuals to progress at their own rate of speed.
4. Develop some skill in self evaluation in each student.



### Scope of the Study

The study was limited to a clothing unit of a ninth grade Homemaking I class at Drumright High School during the school year of 1965-66. Of the twenty-three members of the class, sixteen attended the three grade schools in Drumright, Oklahoma, four attended two grade schools in the outlying districts and three were transfers from other schools. Only three of the class had taken homemaking before entering the ninth grade. Class size did not present any problems in carrying out the study that would not be present in a larger class. The writer believes, however, that benefits will increase to both teacher and students as class size increases. The class as a whole was above average in intelligence as was indicated by the results of the Differential Aptitude tests administered at the beginning of the school year.

### General Procedure

The study was an action research problem in exploring a teaching method with a ninth grade clothing class. Before beginning the problem, literature was reviewed on education in general, the place of home economics in our modern day educational program, and the advantages of grouping students in classes. Beliefs considered in the setting up of the class and in the teaching methods used were:

1. Students will learn more if they attack problems suited to their abilities.
2. Students competing only with those of similar abilities and experiences will likely retain a higher degree of interest.
3. Better management of time can be accomplished by students and teachers when grouping is made according to abilities.
4. Grouping will improve class organization.

A pre-test was administered to determine the clothing construction abilities of the students and a finger dexterity questionnaire was also administered to determine the past experiences of the students in finger manipulation projects. By using the results of these two instruments, the class was divided into three ability groups; the upper, the medium, and the lower. Construction projects suitable to the group's measured abilities were selected as learning experiences on the basis of difficulty--simple projects for the lower group, more difficult projects for the medium group, and most difficult projects for the upper group.

Progress charts formulated by the students were used in each group to determine the rate of speed of each student, for self evaluation in comparison with others in her group and for a guide in the daily class planning for the teacher and students. Demonstrations and other teaching methods were presented to each group as the need arose. Score cards devised by the groups were used as an indication of the suitability of the project for the particular student and as a means to determine the level of achievement. A check sheet for evaluating time management and good work habits in the classroom was used early in the unit to remind students of ways to conserve time and of improving work habits. In addition, it could be used to check on the individuals present work habits and use of time. A second check near the end of the unit was used to determine if improvement had taken place. Group members were provided opportunities to accept responsibilities for class activities which might improve class organization and help maintain a high degree of interest.

The pre-test was administered again at the end of the unit to help determine the amount of learning that had taken place. A careful

observance of comments made by students, the record of home experiences that were selected in the area of clothing, and the number of students wearing completed projects to school were made. Since all homemaking classes are different, only comparisons of previous classes were used to judge results of the study.

## CHAPTER II

### BASIS FOR EDUCATION OF TODAY'S YOUTH

There is a great emphasis being made today on our changing times and its relation to education. The changing today is at a more rapid pace than ever before because of man's intellect and knowledge of problems. The changes in education have been influenced by the main events in our society today. Some of the major events affecting education include:

1. The forming of the United Nations.
2. The launching of the earth satellite.
3. The Supreme Court Decision on segregation in public schools.

These three significant developments are only examples of events that have made definite impacts resulting in numerous changes in education. The forming of the United Nations has made progress toward world cooperation. The launching of the earth satellite led to many proposals of educational reform with emphasis placed on science and mathematics. The Supreme Court Decision on segregation in public schools received extensive public attention. The eliminating of small school units has caused an increase in the enrollment of the already growing larger school units.

The role of woman has changed; her responsibilities and interests are more numerous than in the past. There is a growing number of women entering the labor forces. Life in the twentieth-century is more complex and traditional family management no longer meets the needs of the

family of today. Today's woman needs training to adjust to a home life in our modern world. The family has changed from a production unit to that of a consumption unit. Populations have increased and families are highly mobile. The life span has lengthened with an increased population in the older age group. There is a likelihood that the wife will outlive her husband and will have the responsibilities of property management. Due to mothers working, young children are cared for in increasing numbers outside the home. More students are taking advantage of opportunities to travel and study abroad. Because of the young age at which marriage takes place today, the caring for children is required of men and women at an early age. There has been a shift of our population from rural to urban life. Tyler stated:

This massing together of people vastly increases the opportunity for contacts with persons outside the family structure. Thus city life perhaps tends to weaken the cohesive force in the family and opens possibilities of family and social disorganization.<sup>1</sup>

A review of literature reveals that the great growth in the number of teen-agers makes their problems urgent and education for this group is a problem common to all civilized nations. The increased number of teen-agers has caused unprecedented thought and discussion about how our youth should be educated. Much study has been done on the growing problem of the dropout--the student who leaves school as soon as he is legally permitted to do so. A major pressure on today's high-school students comes from overcrowded conditions in the colleges causing thousands of high school graduates to be unable to obtain admission to

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<sup>1</sup>Ralph W. Tyler, "Education in a World of Change," Journal of Home Economics, LIV (September, 1962), p. 533.

the college of their choice. All these changes in our society require changes in our educational system. The ending of segregation and the closing of small school units are giving greater opportunities to the youth and at the same time are presenting more problems. Our mobile population brings together a mass of students with a variety of interests, experiences and problems.

Various educational plans and recommendations have and are being tried to keep up with the rising population and the strong competition for college admission. Among these are:

1. Teaching by means of television.
2. Counseling programs in high schools.
3. Using a vast array of teaching machines.
4. Allowing students to participate in honors programs.

Attention is being given to readjusting education to the needs of society. Lee states that in more recent times, American education has been characterized by a more explicit concern for the ways in which schools affect the psychological and emotional aspects of human personality. The teacher has come to be regarded as deeply and integrally involved in the establishment of conditions which will be conducive to genuine personal satisfaction and fulfillment, which will assist in preparing young people to meet and master the circumstances that will confront them as adults.<sup>2</sup>

The function of education likewise has undergone a change and according to Woodring, "the primary function of education is the

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<sup>2</sup>Gordon C. Lee, "The Changing American School," The Sixty-fifth Yearbook of the National Society for the Study of Education, ed John I. Goodlad (Chicago, 1966), p. 15.

development of the mind, for rational thought and intellectual excellence are the chief goods from which all other goods follow."<sup>3</sup> With our changing patterns in family living, it is important that young people be prepared to do independent thinking. Independent thinking is important in our educational program and in the community in which we live. The development of mental and intellectual skills is needed to reorganize and cope with everyday problems, to realize potentialities and to participate in a democratic society.

Lee has said that the schools must search for the types of experiences that will make probable the realization of happiness. The learner must come to know what constitutes real happiness, must learn where it is most likely to be found, must desire to acquire it for himself and others and must master the way of claiming it.<sup>4</sup>

It would seem that in a democracy such as ours the real aim of education would be to prepare the individual to solve his everyday problems. Training for problem solving consists essentially in having opportunities to come in contact with problems. These opportunities should begin with situations within the power of the individual to handle satisfactorily and gradually lead into more complex situations. Chase stated that he believed that generous education would contribute to at least four distinctive types of development:

1. The ability to use relevant processes for selection of goals and activities.
2. The ability to select and use means appropriate to learning and other goals.

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<sup>3</sup>Paul Woodring, A Fourth of a Nation (New York, 1957), p. 34.

<sup>4</sup>Lee, p. 21.

3. The capacity and the disposition to identify and apply aesthetic and ethical criteria to the manner in which activities are performed.
4. The capacity to respond to the increasing range of phenomena and relationships with understanding, appreciation and appropriate overt action.<sup>5</sup>

Lee identifies one of the crucial aspects in which educational goals can be seen in transition as the shifting of the basic dedication of the school toward the meeting of broad national needs and the facilitation of national policies. The teacher is currently called upon to exert his efforts in behalf of the development of a citizenry which is not simply literate but is literate in relation to pressing political and social realities.<sup>6</sup> Education today must include all individuals. Hall and Paolucci stated that "Home economics programs reflect an acceptance of the values of our society when they are planned to reach all individuals regardless of race, color, socio-economic status, or intellectual capacity."<sup>7</sup>

Educators contend that one of the functions of education has always been to bring culture to the people, and in a democracy, education is for the masses. Chase says:

One of the functions of formal education has always been to bring men into possession of the culture. .... This function is more difficult today than at any time in mankind past. Not only is the culture itself incredibly complex and specialized than was true of a few decades past, but disjunctions in society has intensified and multiplied the demands

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<sup>5</sup>Francis S. Chase, "The Changing American School," The Sixty-fifth Yearbook of the National Society for the Study of Education, ed. John I. Goodlad (Chicago, 1966), pp. 275-76.

<sup>6</sup>Lee, p. 21.

<sup>7</sup>Olive A. Hall and Beatrice Paolucci, Teaching Home Economics (New York, 1961), p. 119.



for education. The present demands incorporate the old need to help man gain mastery of himself and free himself from the tyranny of external circumstances; but now for the first time, "man" means all men, and the external circumstances are global rather than local.<sup>8</sup>

Meaningful instruction includes experiences that interest students in seeing relationships and to rearrange, organize and improve practices in solving everyday problems and problems to come throughout life. A sound education program provides students with opportunities for experiences whereby facts may be tested and used in problem solving. A balanced educational program is one which recognizes and develops special talents and meets the special needs, abilities and aptitudes of all learners. Spafford said "Effective education is growth which enables the individual to orient himself anew, to integrate conflicting beliefs, to reconstruct standards and values as changing conditions demand them."<sup>9</sup>

Home economics has been defined as the study of the law, conditions, principles and ideals which is concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study specially of the relation between those two factors. Home economics teachers are in a most unique position to help carry out the peoples' expectations of schools as set down by the White House Conference on Education:

1. Fundamental skills of communication
2. Appreciation of democratic heritage
3. Civil rights and responsibilities and knowledge of American institutions

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<sup>8</sup>Chase, p. 276.

<sup>9</sup>Ivol Spafford, Fundamentals in Teaching Home Economics, (New York, 1935), p. 25.

4. Respect and appreciation for human values
5. Abilities to think and evaluate constructively and creatively
6. Effective work habits and self-discipline
7. Social competency as a contributing member of his family and community
8. Ethical behavior based on a sense of moral and spiritual values
9. Intellectual curiosity and eagerness for life long learning
10. Aesthetic appreciation and self-expression in the arts
11. Physical and mental health
12. Wise use of time, including constructive leisure pursuits
13. Understanding of the physical world-man relation to it as represented through basic knowledge of the sciences, and
14. An awareness of our relationships with the world community.<sup>10</sup>

A relatively new idea in our public schools today is that of educating girls for a dual role of homemaker and wage earner. It is imperative that education provide more help for women to care for a home and family and work outside the home. The increasing number of women entering the labor forces places new responsibilities on them as a homemaker. Regardless of the type of job the homemaker takes, seldom is she free of responsibilities at home, making it increasingly important that young women be trained in such a way that they can confidently face the role of homemaker and wage earner. Programs in the public schools have been devised to help high school girls understand the various roles to be assumed as girls and as women. Homemaking classes are often the focal point for this training program.

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<sup>10</sup>The Committee for the White House Conference on Education, "A Report to the President," Chairman, Neil H. McElroy (Washington, D. C., April, 1956), pp. 91-92.

The Vocational Education Act of 1963 was intended to broaden the educational program, reduce school dropouts and offer greater opportunities for individuals to become trained for employment. This act provides for training of high school students: full-time study for persons who have completed or left high school; persons employed but who need training or retraining to achieve stability or advancement in employment; and for persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational educational program. Area Vocational-technical schools are in the making to provide additional opportunities for training of high school students, post-high school students and adults.<sup>11</sup>

With the various new products and equipment for the home and the more complicated demands made of today's homemaker, the training for this role can no longer be passed on from mother to daughter. Tornetta said that the establishment of good home and family life should be the primary aim of society. A contribution to this goal may be achieved through instruction in the different areas of home economics for knowledge in these areas should not be left to chance. To ensure adequate education for home and family living we depend on our educational system to make a worthwhile contribution.<sup>12</sup>

Home economics teachers, because of the wide area that home economics covers, have opportunities to help each student develop as an individual. This diversified field of study makes group work within classes

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<sup>11</sup>"The Area Vocational-Technical School Question." Publication from the State Vocational Education Office. (Stillwater, 1966).

<sup>12</sup>Sally Tornetta, "The Value of Home Economics," What's New in Home Economics, XXIV (October, 1960), p. 84.

a worthwhile method of teaching. A publication by the National Education Association stressed the importance of home economics in the curriculum in the following statement:

Home economics is not a discipline as science, mathematics, and language are; rather, it is an applied field of study. It offers the opportunity to investigate; experiment; create; demonstrate; and apply the laws of physics, the principles of art, the logic of mathematics, and the wonders of science to the business of living.<sup>13</sup>

As emphasis has been placed on including more science and mathematics, a greater number of high school credits have been required for graduation. Home economics, as well as other courses, has been more or less placed in the background. Home economics provides valuable training and preparation for an adult life. The National Education Association made the following statements for consideration:

1. More than half of today's high school seniors will be married before they are twenty-one.
2. New products and new ways of doing things make it difficult, perhaps impossible, for a modern mother to assume full responsibility for teaching her daughter to be a wise consumer and successful homemaker.
3. It is predicted that most girls currently in school will be employed outside the home for at least twenty-five years of their adult lives. Home economics helps them prepare for careers as well as marriage.<sup>14</sup>

A good home economics program provides opportunities for young people to:

- ....Become aware of many different kinds of people; how they live, think, and react and what they believe.
- ....Evaluate themselves in terms of physical attractiveness, social acceptability, mental attitudes, and moral and aesthetic values.

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<sup>13</sup> Educating Daughters, Publication by the National Education Association. (Washington, D. C., 1966).

<sup>14</sup> Ibid.

- ....Explore their own capabilities.
- ....Develop abilities important to the individual.
- ....Identify and establish self-esteem.
- ....Understand themselves, people their own age, their elders, and the sisters and brothers with whom they live.
- ....Prepare for a world of work.
- ....Talk over the things that concern them in a directed yet friendly atmosphere.<sup>15</sup>

The study of clothing should hold an important place in our education today. It is believed that the average family spends more for the clothing of the family than for anything except for food and shelter.

Erwin and Kinchen said:

In the study of textiles and clothing, as in any other field, you have the opportunity to reach for desirable goals of general education: (1) more independent responsibility for learning, (2) improved effectiveness in decision making, (3) increased creativity, (4) better developed habits of intellectual inquiry, (5) greater competence to communicate with other members of a group, (6) added satisfaction in learning, (7) more effectiveness in human relationships, and (8) greater appreciation of beauty.<sup>16</sup>

As trends in the educational system change to meet the needs of society in coping with everyday problems changes in the homemaking curriculum are also taking place. In the past years the emphasis in clothing construction classes has shifted from that of learning construction techniques to a wider area including the selection and care of clothing and purchasing wisely to meet the family's clothing needs. In past years more of the family's clothing was made in the home than is true today. Some of the factors causing this change are:

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<sup>15</sup> Ibid.

<sup>16</sup> Mable D. Erwin and Lila A. Kinchen, Clothing for Moderns, (New York, 1964), pp. 3, 4.

1. More women are working outside the home.
2. Mass production of wearing apparel has come into effect.
3. More sizes are available.
4. There is a greater range of styles from which to choose.

With the increased number of women in the labor forces less time is available for the family's clothing to be made in the home. The large scale mass production of garments makes clothing available at reasonable prices for the average family and more sizes are available making it possible to fit the once hard to fit figure in moderately priced garments. With more recognized fashion designers in the United States the average income consumer can purchase more styles than was possible in the past.

The process of clothing construction is taking on new meaning to different people. Some in the upper income bracket construct their own clothing in order to achieve high style for less money. Erwin and Kinchen said that making her own clothes emphasizes the personal uniqueness and individuality for the wearer and contributes to her self-development. Another recognized advantage in sewing is its use as an outlet for creative ability. This factor may become more important with the advent of increasing leisure and greater awareness of the need for creative expression. Some psychiatrists today are recognizing the importance of doing work with the hands to relieve tensions. It may prove a stabilizer in times of distress, a bond for knitting family ties closer together.<sup>17</sup>

Perhaps one of the effects of the decreasing amount of clothing

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<sup>17</sup> Ibid., pp. 18-20.

construction being done in the home is seen in homemaking classes. In a ninth grade clothing construction class some of the students come from homes where no sewing machines are available and have no experience whatsoever in clothing construction. Experiences of students who have done some sewing may vary from very little to a great deal in previous homemaking classes, at home, or in 4-H club work. Due to today's mobile families the average ninth grade homemaking class will include students from several different grade schools, some of which offered homemaking and some that did not. This difference of students' past experiences presents a problem to the homemaking teacher in planning the class work to include learning experiences appropriate for all students. The initial step in the study was to examine the method of pre-testing the ninth grade student to determine clothing construction ability and the grouping of those of similar abilities to attack problems suitable for each group.

Alexander gave the following as conditions conducive to pupil learning:

1. If they engage in experiences which are important to them.
2. If the teacher starts to work with them where they are, not where she thinks they should be.
3. If they are able to succeed in practicing the behavior expected.
4. If they can participate in the entire experience--selecting, planning, carrying out, and evaluating it.<sup>18</sup>

A pre-test may serve one or more of several purposes:

1. Help the teacher to determine the experiences students have had.

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<sup>18</sup>Margaret Alexander, "Trends in Homemaking Education in the High Schools of Today," Journal of Home Economics. XLVII (October, 1955), p. 577.

2. Stimulate interest of students.
3. Help students realize their needs.
4. Give a basis for teacher-pupil planning.
5. Serve as a guide for counseling individuals.
6. Be helpful in evaluating students progress at end of unit.

Army believes that unless present status is known, neither teachers nor students can see what changes need to be made or are able to plan what instructions should be given to bring about such changes.<sup>19</sup> Pre-testing is one means used to determine the background and experiences of students for planning purposes.

The writer believes that group work in the classroom encourages democratic action, allows students to work at their own rate of speed, makes it possible for planning to meet individual needs of students and provides opportunities for students to succeed in learning experiences. Students learn and develop abilities if they attack problems that are important to them. More learning takes place if the student participates in evaluation of past experiences and the planning of goals to accomplish. Group work encourages personal development and individual learning experiences. Students can undertake and experience such democratic values as collective thinking and co-operative action for the common good. Respect for individuality and for differences in opinions, skills, abilities and appreciations may be gained. Problems at hand are analyzed and planned for attack. Students may be helped to recognize resources available to them, weigh the uses of these resources and select

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<sup>19</sup> Army, Clara M. Brown, Evaluation in Home Economics (New York, 1953), p. 26.



among the alternatives that one which most nearly helps them to achieve their goals.

## CHAPTER III

### ADMINISTRATION OF INSTRUMENT AND CLASS GROUPING

This was an action research problem in exploring the method of grouping a beginning clothing construction class according to scores made on (1) a clothing construction pre-test and (2) the results of a finger dexterity questionnaire. Literature was reviewed concerning education in general, changes taking place in the educational needs of our society, the value of pre-testing and advantages of grouping in homemaking classes.

The instruments were administered at the beginning of the clothing unit and again at the end of the unit. The class consisted of ninth grade girls coming from five different grade schools which offered no homemaking. Also in the class were some transfer students who had completed either one semester or one year of homemaking in the eighth grade. A small per cent had done some sewing in 4-H club work.

Before the test and the questionnaire were given, the teacher explained to the class the reason for and the importance of both. It was also explained that even though correct answers were of great importance, the given answers would in no way affect grades.

The raw scores of the test and questionnaire were converted to weighted scores by using the table supplied with the test. These scores were then used to classify the students in the class and place them in groups of similar scores. The results of the ranking of the

twenty-three members of the class placed three in the highest group, twelve in the medium group and eight in the lower group.

Preceding the clothing unit, the class had studied good grooming and care of clothing. Included in this study was choosing colors for the individual girl. No stimulation of interest in the approaching unit seemed necessary as the students all seemed most anxious to start a clothing project. Pattern selection must be done early in a small town since many of the patterns have to be special ordered or students must shop when out of town. Pre-planning by the teacher was based on the basic understandings, generalizations and principles as set forth in the Oklahoma Homemaking Education Resource Materials for Clothing and Grooming. The understandings, generalizations and principles selected were:

1. A knowledge that fabrics made from some fibers may be difficult to handle when sewing enables one to select material that is easy for the inexperienced seamstress to use.
2. When patterns selected for first garments are very simple and construction is within the ability of the student, better finished garments result and the student receives satisfaction from a job well done.
3. The guide sheet offers much valuable information which helps one who is learning to sew.
4. Familiarity of pattern markings will lead to easier interpretation of the guide sheet.
5. Developing good standards of work early are essential in learning to sew satisfactorily.
6. Simple, well-made garments that one can wear and likes, give satisfaction for hard work.

Following a discussion of (a) limited time for the unit, (b) the need for sharing of sewing machines and other equipment, (c) limited space and (d) possible ways of evaluation, the following goals for the class were set up.

1. Learn to select pattern and fabric suitable to individual size, color, style and texture.
2. Develop good work habits which will conserve time and add to good class organization.
3. Cooperate with group in helping when possible and in sharing of equipment.
4. Learn new sewing techniques and improve those practiced before.

Lecture and class discussion preceded the selection of patterns.

The use of the opaque projector along with a bulletin board display helped the class to gain an understanding of the basic principles of line and design in garments and the effect on different figure types. Several of the students asked questions concerning particular figure problems.

It was explained to the class that the wise choice of patterns for each individual was important. While each student should attack a problem that would offer new learning experiences, it would be unwise to try one that would be too difficult. The result of a difficult pattern would likely be discouraging and a garment not to be proud of.

Using the test results, the class was divided into three groups. The two larger groups were divided into four groups since five work tables were available in the clothing laboratory. The students were told that the grouping did not indicate grade possibilities, but that grading would depend upon individual performance on projects made. The teacher selected patterns suitable for the abilities of each group. In some instances the same pattern number was given as a choice for two different groups with certain views or styles indicated for the different ones. Patterns for the lower group (referred to hereafter as Group III) included sleeveless blouses and one piece dresses or those with cap sleeves. Darts, facings, hems and fasteners such as buttons

and hooks and eyes were the most difficult learning experiences for this group. Patterns for the middle or medium group (referred to hereafter as Group II) included such techniques as zippers, gathers and pockets and other simple trim. Pattern selections for the upper group (referred to hereafter as Group I) included two piece dresses of simple design, some set in sleeves, some collars, extra problems such as belts, scalloped edges or belt carriers.

The lists of pattern numbers were placed on the chalk board and indicated as Group I, Group II and Group III. Pattern books were passed out for the groups to use in the selection of patterns. By using the collection of books in the homemaking department and those borrowed from local stores, the students were able to discuss together merits of the different patterns. This took a part of two class periods. Only one student of the twenty-three class members seemed unhappy with the choice of patterns available to her group. She was grouped with the lower group (I) which had a smaller list from which to choose. The teacher helped her make a choice and pointed out simple ways of adding individuality such as buttons for trim. She then seemed happy and eager to get started on her project. During this process of choosing patterns, many questions were asked as the teacher circulated among the different groups. Such questions included:

1. Would this pattern make me appear larger?
2. What kind of material would be best for this pattern?
3. Which of these would look best on me?
4. May Sue and I make one just alike?
5. Is it difficult to put in a zipper?

Most of these questions led to short group discussions and individual

opinions were expressed. Since it is important to this age group to be like their peers, especially in dress, the small number of patterns to choose from posed no problem. However, it was pointed out and illustrated with pictured examples how garments made by the same pattern need not appear the same. Different ways of gaining individuality in garments were illustrated and cited as one of the reasons that some prefer to make their own garments.

The correct methods of measuring for pattern size was discussed and demonstrated by the teacher. Each group selected a recorder to make a record of each girl's measurements and each girl had the opportunity to measure another. The pattern book was used as a reference to determine the pattern size best suited to each student. Fabric bodice shells of various sizes were available for students to try on so the teacher could examine them for fitting.

The wise choice of fabric is of great importance in any high school clothing class and is a determining factor in the success or failure of a "first" garment. An unsuitable selection of fabric may cause failure of an otherwise successful project and destroy interest of the student ever wanting to sew again. The following points were brought out in a laboratory lesson:

1. Fabric easiest to handle is firmly woven.
2. Fabrics hard to handle are those that are flimsy, stiff or heavy.
3. Fabrics that will ravel easily require added time.
4. Bold plaids, strips and large checks or figured designs look well only when matched and evenly spaced.
5. Designs of printed materials are sometimes off grain.
6. "Vat dyed" fabrics give added satisfaction.

7. Some "drip dry" cottons have a peculiar odor.
8. A good selection of fabric will be becoming to wearer in color and design.
9. A good selection of fabric for a garment is one that fits into the individual's wardrobe.

Samples of fabrics were passed around for students to see and feel. Grain of fabric, selvages, and usual widths of cottons were points that were brought out by the teacher. At this time an explanation of the preparing of fabric for cutting was discussed and a demonstration of stretching fabrics to straighten was given. Samples of cotton fabrics were placed on the bulletin board for further examination by the students. The following shopping habits were discussed:

1. Shopping when stores are not crowded is an advantage.
2. The shopper makes wiser selections when not hurried.
3. It is wise to double check the width of fabric to be purchased.
4. If pattern is purchased before fabric, it can be referred to for yardage needed.
5. It is best to purchase notions needed at time of purchasing the fabric to be used.

Patterns on hand were given to students for examining. Each girl selected a view of the pattern she was holding and assuming she would be purchasing a fabric thirty five inches wide, determined the amount to be purchased. The class was reminded that if a pattern needed to be lengthened, more fabric would be required. Other types of information on the pattern envelope observed were: (a) suggested fabrics, (b) notions needed, (c) fabrics with and without nap and (d) interfacing. Pattern pieces were identified and studied for markings and the instruction sheets were examined for types of information provided.

The following list of supplies was given to the class to be brought for use in the class.

1. Shears
2. Needles
3. Pins
4. Thimble
5. Pin cushion
6. Basting thread
7. Tape measure
8. Seam gauge
9. Tracing wheel and paper
10. Small box

Since the clothing unit was offered the second semester of the school year, the teacher was aware of special friendships within the class. The grouping for this unit separated some of these groups. Past experiences had proven that the separation of close friends lead to better management of time. In assigning sewing machines to be shared it is advantageous to assign the same machine to "best friends" within the group. When one student is at the machine it leaves her friend at the work table or elsewhere in the room working.

After the sewing machine assignments were made the teacher made a survey to determine how many in the class knew how to thread and operate her machine. Six in the class could thread the assigned machine. A demonstration was given on the proper care and use of the sewing machine for best performance. Diagrams with threading instructions were distributed for each machine. The teacher and students who were familiar with the machines assisted the rest of the class in learning to operate



the machines. For practice in starting and stopping, straight and curved stitching and the turning of corners, papers prepared by the Singer Sewing Machine Company were used by the students.

It was decided by the class that plans needed to be made for cutting garments. Enough table space was not available for all students to cut out garments at the same time. Plans needed to be made for allotting time to cut and how time could be best spent while waiting for a table. The following decisions were made by the students after much consideration:

1. Two girls work together in each group except in the group of three where the three would work together in preparing fabric, pinning on pattern, and cutting out garment.
2. The time spent while waiting to cut could be used in one or more of the following ways:
  - (a) further practice with the sewing machine;
  - (b) learning to knot thread,
  - (c) using the thimble and
  - (d) practicing hand stitches.

In a beginning clothing class much of the responsibility of the fitting of patterns and of garments must be assumed by the teacher. A demonstration of the pinning of a pattern together for fitting prepared the students for doing this step in order to save time. Most of the class trimmed margins from pattern pieces and labeled with name or initials each pattern piece to be used, guide sheet and pattern envelop before bringing them to class in order to conserve class time.

When all equipment was assembled and the tote trays were assigned, a check was made for the ability of each student in performing the following techniques:

1. Threading needle
2. Knotting thread
3. Using scissors or shears
4. Making simple basting stitches
5. Fastening thread
6. Tying and clipping threads
7. Trimming and clipping seams
8. Placement of pins
9. Using tracing wheel
10. Ripping

Before actual construction processes started, a further study of individual guide sheets was made. Each student checked the layout suited to her pattern view, size and fabric width. It was suggested by the teacher that a progress record be kept for each student. The class helped list steps of progress necessary to complete their garments and from this list a progress sheet for each group was formulated.<sup>1</sup> Each student's name was placed under the steps of progress with spaces left to be filled in by the student at date of each completed step. These progress charts were placed in the room and served the following purposes:

1. Informed each student of her own progress within her group.
2. Informed the teacher how the students were progressing.
3. Supplemented the guide sheet in planning daily goals.

The progress chart proved to be an inspiration to the students. It seemed important to them to keep up with others in their group and

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<sup>1</sup> See Appendix A, page

they were quick to fill in dates of completed steps of their garment. The progress chart was a valuable asset to the teacher in that she could see at a glance when demonstrations, bulletin board displays and other teaching methods for each group would be needed.

It seemed necessary to stress good management of time and of good working habits in this unit. The writer believes that it is an advantage to have the students do all their garment construction at school rather than taking them home for parts of the work. Since the class periods ran for less than an hour and a limited amount of classroom equipment was available, poor work habits and time management could hamper progress. A copy of the following good management rules was given to each student and discussed in class:

1. Have all necessary equipment on hand.
2. Label all personal equipment with name or initial.
3. Keep personal equipment in small box in tote tray.
4. Share use of other equipment.
5. Leave books and purses on shelves provided for that purpose.
6. Keep work area at table and at sewing machines clear of scraps and threads.
7. Use designated machine drawer for waste materials when at sewing machine.
8. Consult guide sheet before asking teacher for help.
9. Make a plan for the following day.
10. Consult bulletin board and other materials for better understanding of problems.
11. Use time at sewing machine for machine stitching and not for basting and ripping.

These rules were placed in the individual tote trays for future reference. Good management habits on the teacher's part included

(a) pre-planning for each day, (b) saving old patterns to be used as a laboratory lesson, (c) saving leftover fabric scraps from other classes and (d) keeping trial machine stitchings on scraps from other classes to be used for learning to rip. A check sheet composed of questions concerning work habits, methods, progress, housekeeping responsibilities and the overall outcome of the project was administered early in the unit and again before the garments were completed.<sup>2</sup> The first administration served to alert the students of their present habits and to introduce ways of improving. The second time it was administered, served as a check for students to identify improvement made and to point out why some had progressed at a more rapid pace than others.

After the students were well into the construction of their garments a plan of evaluation was set up in each group. This seemed to be the feasible time to make a score card since the students were not aware of possible points for evaluation nor were they able to estimate the value of the different processes before experiencing some of the difficulties therein. Devising a score card before the garments were completed gave the students some standards to work toward. Outside reading assignments were made before the formulation of the score card was attempted. The entire class worked together to list the qualities of a well-made garment. Each group selected from this list the points which would be applicable to the garments in that particular group. Within a few minutes of time for a buzz session and some help from the teacher each group decided on the number of points that should be given

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<sup>2</sup>See Appendix B, page

each accomplishment listed.<sup>3</sup> A copy of the score card was kept in the individual tote trays for references while working on garments and to be checked by the student before handing in the garment for final grading. Space was provided for the student's score as well as for the teacher's score. As the garments were modeled in class, the teacher could detect no more comments of admiration for those made in Group I than those made in Group II or III.

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<sup>3</sup>See Appendix C, page

## CHAPTER IV

### PRESENTATION OF FINDINGS

The study was made to determine the value of grouping a ninth grade clothing construction class according to the clothing construction abilities as determined by the Clothing Construction Pre-test and Finger Dexterity Questionnaire prepared by Chadderdon, Croft, and Hatch.<sup>1</sup>

Beliefs concerning this method of grouping were:

1. Students will learn more if they are able to attack problems that are suited to their ability and if they are grouped with those of similar abilities.
2. Students competing only with those of similar abilities will be more likely to retain interest.
3. Grouping will provide opportunities for better class management.
4. Grouping will provide opportunities for more students to accept class responsibilities.

After the test scores were tabulated the class was divided into three groups--upper, medium and lower for class organization and selection of construction projects.

The increase in the scores of the clothing construction ability post-test over the scores of the pre-test indicated that learning did take place as shown in Table I. Scores of students in Group I increased from 6 to 7 points with post-test scores ranging from 31 points to 34 points out of a possible 35 points. The scores of students in Group II

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<sup>1</sup>Chadderdon, Croft, and Hatch, p. 2.

TABLE I  
 SCORES MADE BY NINTH GRADE STUDENTS ON CLOTHING  
 CONSTRUCTION TESTS AND COMPLETED PROJECTS

Case Number	Pre-test Possible Score (35)	Post-test Possible Score (35)	Project Possible Score (100)
Group I			
1	25	31	94
2	27	34	97
3	25	32	98
Group II			
1	20	26	96
2	22	34	96
3	21	28	96
4	23	30	95
5	16	34	92
6	17	19	84
7	16	24	96
8	18	25	94
9	19	20	80
10	17	33	97
11	18	30	80
12	15	34	94
Group III			
1	14	32	96
2	16	33	93
3	11	22	84
4	16	28	94
5	13	27	94
6	12	30	95
7	14	29	94
8	10	15	82

ranged from an increase of 1 point to 19 points with 75 per cent of the group increasing their score by 7 points or more. The students in Group III showed the greatest increase in post-test scores. Score increases ranged from 5 points to 18 points with over 87 per cent increasing their score by 11 points or more. Questions most frequently missed were those referring to information that was not included in projects constructed by the students (Table II). Such questions concerned information about collars, the cutting of bias and marking indications on a blouse front pattern. Another evidence of the learning taking place was the scores of the completed projects as shown in Table I. Scores of Group I ranged from 94 to 98 of a possible 100 points. Scores of Group II ranged from 80 to 98 and scores of Group III ranged from 82 to 96.

The score cards made by each group were used to evaluate the completed projects.<sup>2</sup> The ability of the students to perform clothing construction processes of the selected projects in a satisfactory manner with a high degree of continued interest showed evidences of a satisfactory method of grouping.

The progress charts recorded by the students gave evidence of the grouping together of those of similar abilities and speed. A summary of these charts may be seen in Table III. Students in Group I completed their projects at approximately the same time. The greatest deviation in time of the completion of projects occurred in Group II. This group had a wider range of construction processes than those in Group I and in Group III. All students in Group I and Group III completed their

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<sup>2</sup>See Appendix C, page



TABLE II  
 QUESTIONS MISSED ON PRE-TEST AND ON POST-TEST

Question content	Pre- Group I	Post- Group I	Pre- Group II	Post- Group II	Pre- Group III	Post- Group III
1. Seam width	0	0	9	4	4	4
2. Seam width	0	1	5	4	6	4
3. Identify blouse front	0	0	3	2	5	3
4. Identify blouse back	0	0	3	2	5	2
5. Identify pocket	0	0	0	0	1	0
6. Identify collar	1	0	2	5	2	3
7. Prepare seam	2	3	7	1	3	4
8. Order of procedure	0	0	0	0	0	0
9. Order of procedure	0	0	4	1	2	1
10. Order of procedure	0	1	0	0	0	0
11. Order of procedure	0	0	6	3	3	1
12. Pattern marking (dart)	0	0	0	1	4	1
13. Grain line	0	0	7	0	5	0
14. Fold marking	1	0	6	1	5	2
15. Altering	1	0	4	1	7	1
16. Fold marking	1	0	6	7	5	4
17. Center front	1	0	4	4	6	4
18. Straighten fabric	2	1	11	1	7	0
19. Bias	1	0	10	2	7	1
20. Hemming	1	0	8	4	7	1
21. Gathering	1	0	8	2	8	2
22. Order of procedure	1	0	5	4	7	3
23. Notches	2	1	5	1	4	0
24. Cutting line	0	0	2	0	5	0
25. Stay stitching	0	0	3	0	8	1
26. Tracing wheel	0	0	1	1	4	2
27. Pinning	1	0	7	5	7	5
28. Measuring	1	0	6	1	3	1
29. Measuring	1	0	9	1	6	1
30. Measuring	3	0	10	0	8	0

TABLE II (Continued)

Question content	Pre- Group I	Post- Group I	Pre- Group II	Post- Group II	Pre- Group III	Post- Group III
31. Altering	0	0	5	4	3	3
32. Grain line	0	0	5	4	3	3
33. Garment bias	3	1	9	6	6	4
34. True bias	3	2	7	4	6	1
35. Crosswise grain	1	0	7	6	5	5
Totals	28	10	185	82	167	67

Group I had three members, Group II twelve members, and Group III eight members which accounts for part of the difference in the number missed in each group.

TABLE III

## DATES OF COMPLETION OF PROJECTS AS RECORDED ON PROGRESS CHARTS

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Case Number	Date of Completion
Group I	
1	March 25
2	March 25
3	March 23
Group II	
1	March 19
2	March 23
3	March 22
4	March 18
5	March 25
6	March 25
7	March 20
8	March 18
9	March 31
10	March 19
11	March 25
12	March 18
Group III	
1	March 24
2	March 24
3	March 25
4	March 24
5	March 25
6	March 22
7	March 25
8	March 25

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projects within the allotted time. One student in Group II failed to complete her project on time.

It seemed that students grouped with those of similar abilities could work with approximately the same rate of speed and would remain interested until completion of the project. The students, with very few exceptions, were always ready to begin work as soon as possible and a small per cent put work away before clean up time. Comments of the students as observed by the teacher indicated much satisfaction as they completed daily goals. Among such comments were:

"My very first zipper: I'm so proud of it."

"Can you believe that I stitched that so straight."

"I'm making another dress by this pattern at home."

"Mother will never believe that I put this hem in."

"This class passes so fast."

Other evidences of continued interest of the students were (a) readiness to check progress charts as each procedure was completed, (b) eagerness to try on garments for fittings and (c) the wearing of completed garments to school. The checking of the progress charts was a continuous process that started as a task to be done by each student after putting away her tote tray. Students soon began marking the date on the progress chart immediately upon the completion of a construction process. Many times a student would try a garment on when fitting or other observations were unnecessary simply because she wanted to see how much progress she had made. It was noted by the teacher that each student wore her completed garment to school at least once. Over 73 per cent of the class selected home experiences in the clothing area. Clothing projects were selected by 100 per cent of Group I, over 58 per cent by Group II,

and over 87 per cent of Group III showing evidence of continued interest in clothing construction.

The management check sheet indicated improvement in management of time during class work as shown in Table IV. Group I had 33.3 per cent of the students showing a higher rating on the second checking with a decrease of the remainder of the group. Group II had 50 per cent of the students marking increases, 33.3 per cent showing a decrease and 16.7 per cent remaining the same. Group III showed the greatest increase with 62 per cent of the students showing increased ratings, 13 per cent showing a decrease, and 25 per cent remaining the same.

The total questions checked "always" on the first checking was 328, 281 "sometimes," and 12 "never" as compared with 356 "always," 258 "sometimes," and 7 "never" on the second checking. Some of the students who checked "always" on the first checking checked the same question "sometimes" on the second checking as well as some who increased their rating on the second checking. There was an increase in the number of students checking "always" to 16 of the 27 questions. The most improvement appeared in questions concerning the use of time while waiting and of maintaining good working posture, with students in all three groups showing an increased rating. Group I marked higher ratings on 8 questions, Group II on 10 questions and Group III on 12 questions. Seven of the questions were checked "always" by the entire group on both the first and second checkings, therefore showing no improvement.

Twenty-two of the 23 projects were completed on time (see Table III) and 21 of the students made a second project showing an improvement in time management and of working habits. The progress charts gave more evidence of good management as well as satisfactory grouping.

TABLE IV

RESPONSES MADE ON THE FIRST AND SECOND CHECKINGS OF THE TIME  
MANAGEMENT AND WORK HABITS CHECK SHEET

Question	First Checking			Second Checking		
	Always	Sometimes	Never	Always	Sometimes	Never
1	12	11	0	9	14	0
2	9	14	0	4	19	0
3	11	12	0	12	11	0
4	18	5	0	22	1	0
5	19	4	0	22	1	0
6	12	11	0	12	11	0
7	16	7	0	19	4	0
8	8	15	0	10	13	0
9	4	19	0	6	17	0
10	13	8	2	7	16	0
11	12	11	0	11	12	0
12	12	11	0	10	13	0
13	10	12	1	12	11	0
14	4	19	0	4	19	0
15	22	1	0	23	0	0
16	9	14	0	12	11	0
17	7	16	0	14	9	0
18	3	18	2	3	18	2
19	2	10	1	9	14	0
20	19	4	0	19	4	0
21	21	1	1	23	0	0
22	19	4	0	20	3	0
23	17	5	1	19	3	1
24	22	1	0	21	1	1
25	7	15	1	11	12	0
26	10	12	1	7	14	2
27	10	11	2	15	7	1
Totals	328	281	12	356	258	7

This grouping of students gave the teacher an opportunity to present demonstrations and other teaching methods to a group ready for such instruction while the other class members could continue to work on their projects. The progress charts served as a guide for the teacher to do day-by-day planning for each group.

Each class member accepted some responsibilities that contributed to better class organization. Every student took part in the formulating of the score sheet to be used by her group in scoring the completed projects. Reports of special references were presented to the class by each member of each group and a bulletin board was prepared by each group with each member contributing a portion of the display. Each member of the class accepted the responsibility of an appointed date to place the "Reminder For You"<sup>3</sup> and an appropriate cartoon for the class on the bulletin board in addition to the group display. The individual students were provided with opportunities to select construction projects, plan and carry out everyday goals, plan and keep progress records and develop and use evaluating devices.

It was noted that scores made on the Clothing Construction Ability Tests did not coincide with scores made on the Differential Aptitude Tests as can be seen in Table V. Some students in Groups II and III scored higher on the aptitudes than some of those in Group I. Neither did past experiences in clothing construction seem to indicate a satisfactory method of grouping.

The student rating the highest score on the clothing pre-test scored above average in seven of the nine categories of the Differential

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<sup>3</sup>See Appendix D, page

TABLE V

EXCERPTS FROM THE DIFFERENTIAL APTITUDE TESTS SCORES FOR THE  
NINTH GRADE CLOTHING CLASS OF DRUMRIGHT HIGH SCHOOL

Case Number	Percentile Rank			
	Verbal Reasoning	Scholastic Ability	Abstract Reasoning	Space Relations
Group I				
1	+	+	+	+
2	A	A	-	A
3	+	+	A	+
Group II				
1	A	-	-	A
2	+	+	+	+
3	A	A	-	A
4	+	+	+	A
5	+	+	A	A
6	A	A	A	A
7	-	-	+	A
8	+	+	+	+
9	+	A	-	A
10	A	-	-	+
11	+	A	+	+
12	+	+	+	+
Group III				
1	+	+	+	A
2	+	+	A	-
3	A	-	-	A
4	+	A	A	A
5	+	A	+	-
6	+	+	+	A
7	+	+	A	-
*8				

\*Did not take the Differential Aptitude Tests

Totals of entire class:

Verbal reasoning-----

average = 6

above average = 15

below average = 1

Abstract reasoning-----

average = 6

above average = 10

below average = 6

Scholastic ability-----

average = 7

above average = 11

below average = 4

Space relations-----

average = 12

above average = 7

below average = 3



Aptitude Tests and average on two of the categories. She had done extensive sewing at home and in 4-H club work. Her mother did much sewing for the family.

The second high scoring student on the pre-test also rated above average on eight of the nine categories of the Differential Aptitude Tests and average on the abstract reasoning category. She had done no sewing previously, but had high standards of construction. Her mother did some sewing and had dressmakers sew some for the family.

The remaining student placed in Group I rated above average in four of the categories of the Differential Aptitude Tests and below average on the abstract reasoning category. She had done considerable sewing at home but her mother had never sewn. Even though this student progressed well in her group there were two students in Group II and two in Group III who rated as well on the Differential Aptitude Tests but seemed well placed in their group. Two students in Group II rated higher on the tests and also seemed well placed.

Of the 11 students placed in Group II, the teacher believed that two might have progressed more if they had been placed in Group III. Two members of this group had been previously enrolled in homemaking and had done some sewing. Six had no sewing experiences, while three had done considerable sewing at home. Only four mothers did sewing at home. Nine "second projects" were completed by members of this group.

The student rating the lowest on the Clothing Construction Pre-test did not take the Differential Aptitude Tests and even though her interest was kept at a high degree, she struggled to keep up with the others in Group III. She had done some sewing in school before but no sewing was done at home. The other seven students of Group III progressed well.

Only one seemed to lose interest by the end of the unit. Standards of this group compared well with those of Group II. Six home projects were completed by members of this group. Only half of the mothers of this group did sewing at home.

It would seem that the findings of this study support the writer's beliefs concerning this method of grouping. Students seemed to learn more as they were grouped with those of similar abilities and were attacking problems suitable to their abilities. A high degree of interest was retained and good working habits as well as better class management was noted. This method of grouping seemed effective in providing opportunities for class members to accept responsibilities related to their ability.

## CHAPTER V

### SUMMARY AND RECOMMENDATIONS

A perplexing problem facing the high school homemaking teacher today is how to determine the clothing construction ability of the ninth grade student, particularly if she has not had the student previously. In any ninth grade homemaking class there will be students who have had possibly two years of homemaking in the seventh and eighth grades, some 4-H club work and differing degrees of experiences in helping with sewing projects at home. Students who have not had such a wide range of experiences in class or club work often know much about clothing construction through home experiences.

This study was made in an attempt to determine the clothing construction abilities of the ninth grade girls in a Homemaking I class in order to group those of similar abilities. A Clothing Construction Pre-test and Finger Dexterity Questionnaire<sup>1</sup> were used to determine the abilities and to form the groups.

The writer's desire to improve teaching methods in the ninth grade clothing classes and to maintain a high degree of interest possessed by the student in beginning clothing construction motivated the study. The researcher worked with the theory that most ninth grade girls have a natural interest and instinct to enjoy the rewards of sewing and that

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<sup>1</sup>Chadderdon, Croft, and Hatch, p. 2.

such interest may be destroyed by difficulties encountered with the first clothing projects. Careful records were kept of individual student's progress and growth and were referred to for day-by-day class planning.

Although only one homemaking class was used for the study, the writer compared results of the study with similar ninth grade classes of past years' experiences. It was believed that students presented with a challenge to their abilities, yet not too difficult, would learn more than when all attacked the same problem regardless of abilities.

Group work is advocated by leading educators for the many advantages it offers to learning situations. The methods for grouping varies with the age level of the students, the size of the class, the physical characteristics of the classroom and many others. In a class where motor skill is employed, some of the above mentioned methods of grouping would be of little value to the student or to the teacher. Data from the Differential Aptitude Tests of the students (in Table V) home visits disclosing past experiences, and conferences with the students gave the writer some indication of student abilities in clothing construction. This information, in past experiences had not been sufficient for satisfactory grouping.

Pre-tests have been used successfully in other areas of homemaking as well as in clothing classes. The writer believes that the results of grouping according to scores of the Clothing Construction Pre-test and from the results of the Finger Dexterity Questionnaire proved helpful. The results of the study were determined by the following comparisons with past experiences:

1. The class seemed better organized.

2. More students helped plan class work for her group.
3. The students seemed more aware of the value of time management and good work habits.
4. More projects were completed on time.
5. More students selected home projects in the clothing area.
6. More satisfaction seemed to be gained from completed projects.
7. It was easier for the teacher to give demonstrations and other types of instruction to a group ready for it.
8. A higher degree of interest in sewing was maintained.

A comparison of the scores of the Differential Aptitude Tests (Table V) with the scores of the Clothing Construction Ability Test reveals that students ranking high on the first test did not necessarily rank high on the second. On the basis of this study it would seem that the Clothing Construction Pre-test serves as the better of the two methods.

A wider range of time of the completion of projects in Group II indicates that perhaps the choice of construction techniques was too broad. Group I and Group III had a selection of projects that were more of the same difficulty in construction procedures. The check sheet for time management and work habits indicated that students rated themselves more rigidly the second checking or perhaps they had a clearer understanding of the terms presented. If time permitted, a careful checking with the teacher would be helpful to the student. The always check might be explained to the class as meaning that the particular practice is done more times than it is not done or it seldom is not done; sometimes means that it is done at least half of the time; never means that the practice is seldom or never done.

As styles change in clothing for the teenager some of the questions

of the pre-test might be changed to coincide with the pattern pieces that would likely be used for their clothing projects. Additional research might include experimenting with two ninth grade classes simultaneously, grouping one and not grouping the other.

The findings of this study appear to have implications for teachers who are concerned with improving teaching techniques. As teachers become aware of changes taking place in our educational system they are more likely to make changes in their classroom to keep abreast in educating our youth in becoming well-adjusted and useful members of our society.

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APPENDIX A

PROGRESS RECORD

Group I

Procedures

Student  
Student  
Student

All sewing equipment on hand and labeled			
Pattern fitted and altered			
Fabric prepared			
Garment cut out			
Necessary markings made			
Stay stitching made			
Gathering completed			
Garment basted and fitted			
Darts machine stitched			
Shoulder seams stitched			
Zipper completed			
Pockets and other trim completed			
Collar and facings completed and basted to garment			
Vertical seams stitched			
Sleeves pinned in			
Sleeves stitched in			
Hem measured, pressed and even			
Hem completed			
Fasteners on			
Final pressing			





APPENDIX B

## MANAGEMENT CHECK SHEET

## Directions:

Read each question carefully, then check yourself. This is not a test to be graded and will not affect your final grade. This is a list of questions to help you become aware of your use of time in the laboratory and to point out areas in which improvements can be made in time management.

Check under always if you generally do the task.

Check under sometimes if you do it sometimes.

Check under never if you do not do this task.

	Always	Sometimes	Never
1. Do I make a detailed work plan for attacking clothing problem?			
2. Do I follow my work plan carefully?			
3. Do I come to the clothing laboratory with clean hands?			
4. Do I work until clean-up time?			
5. Do I keep my working area in order?			
6. Do I have all my equipment when needed?			
7. Do I practice time saving construction techniques?			
8. Do I handle garment parts carefully preventing wrinkles?			
9. Do I consult illustrative materials before asking questions?			
10. Do I check material on bulletin board without being told?			

	Always	Sometimes	Never
11. Do I have questions well in mind when the teacher is able to assist me?			
12. Do I keep working on another part of the garment while waiting for the machine or help from teacher?			
13. Do I use appropriate words to express my ideas in clothing?			
14. Do I pay attention to teacher's explanation and demonstration on construction processes?			
15. Do I progress on the problem without rushing any process?			
16. Do I spend my waiting time usefully on materials pertaining to clothing?			
17. Do I work without talking unnecessarily?			
18. Do I keep good posture while working?			
19. Do I use my sewing tools correctly?			
20. Do I use my thimble when sewing?			
21. Do I hold my scissors correctly when cutting?			
22. Do I cut threads with scissors or thread cutter?			
23. Do I return all equipment at the proper place without being told?			
24. Do I perform my housekeeping duties?			
25. Do I keep my tote tray in order?			
26. Do I finish my garment on time?			

Adapted from unpublished thesis of Bettye J. Gaffney, "Improving Time Management in Clothing Classes" (Oklahoma State University, 1962), pp. 25-27.

APPENDIX C



## SCORE SHEET FOR CLOTHING PROJECT

## Group I

	Student's Score	Teacher's Score
<u>Cutting</u> (8)		
Notches extended outside seam line (4)	_____	_____
Seams cut in straight, even lines (4)	_____	_____
<u>Seams</u> (10)		
Straight, even stitching (4)	_____	_____
Notches matched (4)	_____	_____
Pressed open where recommended (2)	_____	_____
<u>Sleeves</u> (15)		
Smooth, no gathers or pleats (10)	_____	_____
Neat finish at lower edge (5)	_____	_____
<u>Zipper</u> (10)		
Even stitching (6)	_____	_____
Correct placement (4)	_____	_____
<u>Collar</u> (12)		
Well rounded and smooth finish (3)	_____	_____
Centered (3)	_____	_____
Understitching even and near seam (2)	_____	_____
<u>Hem</u> (10)		
Even width (3)	_____	_____
Smooth (2)	_____	_____
Neat handwork (5)	_____	_____
<u>Darts</u> (8)		
Pointed and smooth (5)	_____	_____
Pressed correctly (3)	_____	_____
<u>Trim</u> (12)		
Well placed, uniform in size, and neat (6)	_____	_____
Originality (6)	_____	_____

## SCORE SHEET FOR CLOTHING PROJECT

## Group I (Continued)

	Student's Score	Teacher's Score
<u>General Appearance (15)</u>		
Thread matched to fabric (4)	_____	_____
Threads tied and clipped (4)	_____	_____
Bastings removed (2)	_____	_____
Hooks and eyes well placed, secure and neat (3)	_____	_____
Well pressed (2)	_____	_____
TOTAL SCORE (Possible 100)	_____	_____

## SCORE SHEET FOR CLOTHING PROJECT

## GROUP II

	Student's Score	Teacher's Score
<u>Cutting</u> (10)		
Notches extend outside seam line (5)	_____	_____
Seams cut in straight, even line (5)	_____	_____
<u>Seams</u> (10)		
Straight, even stitching (4)	_____	_____
Correct width (3)	_____	_____
Pressed open where recommended (3)	_____	_____
<u>Zipper</u> (15)		
Even stitching (10)	_____	_____
Correct placement (5)	_____	_____
<u>Facings</u> (20)		
Neat finish at outer edge (5)	_____	_____
Lies flat to garment (5)	_____	_____
Neat understitching (6)	_____	_____
Handwork neat (4)	_____	_____
<u>Hem</u> (10)		
Even width (4)	_____	_____
Smooth (2)	_____	_____
Neat handwork (4)	_____	_____
<u>Darts</u> (5)		
Pointed and smooth (4)	_____	_____
Pressed correctly (1)	_____	_____
<u>Trim</u> (10)		
Well placed, uniform and neat (10)	_____	_____

## SCORE SHEET FOR CLOTHING PROJECT

## GROUP II (Continued)

	Student's Score	Teacher's Score
<u>General Appearance</u> (20)		
Thread matched to fabric (5)	_____	_____
Bastings removed (2)	_____	_____
Threads tied and clipped (3)	_____	_____
Hooks and eyes well placed; secure and neat (4)	_____	_____
Gathers evenly distributed (3)	_____	_____
Well pressed (3)	_____	_____
TOTAL SCORE (Possible 100)	_____	_____

## SCORE SHEET FOR CLOTHING PROJECT

## GROUP III

	Student's Score	Teacher's Score
<u>Cutting</u> (10)		
Notches extend outside seam line (5)	_____	_____
Seams cut in straight, even line (5)	_____	_____
<u>Seams</u> (15)		
Straight, even stitching (10)	_____	_____
Notches matched (3)	_____	_____
Pressed open where recommended (2)	_____	_____
<u>Facings</u> (20)		
Neat finish at outer edge (4)	_____	_____
Lies flat to garment (3)	_____	_____
Understitching neat (8)	_____	_____
Handwork neat (5)	_____	_____
<u>Hem</u> (15)		
Even width (5)	_____	_____
Smooth (5)	_____	_____
Handwork neat (5)	_____	_____
<u>Darts</u> (10)		
Pointed and smooth (8)	_____	_____
Pressed correctly (2)	_____	_____
<u>General Appearance</u> (30)		
Thread matched to fabric (5)	_____	_____
Bastings removed (5)	_____	_____
Threads tied and clipped (7)	_____	_____
Hooks and eyes neat, secure, and well placed (10)	_____	_____
Well pressed (3)	_____	_____
 TOTAL SCORE (Possible 100)	 _____	 _____

APPENDIX D

## REMINDER FOR YOU

1. Always work with clean hands.
2. Be seated and quiet when the tardy bell rings.
3. Have equipment on hand when needed.
4. Keep tote tray neat and orderly.
5. Practice good posture.
6. Keep pins and needles in pin cushion.
7. Keep pins out of mouth.
8. Wear thimble when doing hand sewing.
9. Share equipment with others.
10. Return equipment to proper place.
11. Keep daily work plan.
12. Do little unnecessary talking.
13. Consult guide sheet before asking for help.
14. Keep working area clean.
15. Waste little time.
16. Check bulletin board daily.

This list of reminders was available for students to use and they were encouraged to use their own ideas.

VITA

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Master of Science

Thesis: AN EXPLORATORY STUDY OF GROUPING A BEGINNING CLOTHING CONSTRUCTION CLASS BY RESULTS OF A CLOTHING CONSTRUCTION ABILITY PRE-TEST AND FINGER DEXTERITY QUESTIONNAIRE

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