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White, Sally Wright. EFFECTIVENESS OF A SELF-INSTRUCTIONAL SEWING PROGRAM WHEN USED WITH DISADVANTAGED ADULTS. (1967)  
Directed by: Dr. Hildegard Johnson. pp. 81.

It was believed that Sewing Step-by-Step could be used by adults in a group situation in which the person in charge was not a home economist. The present study was a trial of the program in such a situation. The purposes were (1) to examine the problems and successes experienced by five disadvantaged women as they used a self-instructional program to construct a blouse, and (2) to study the problems a non-home economics person would encounter in administering the program.

The self-instructional program Sewing Step-by-Step used in this study was developed by researchers at the University of North Carolina at Greensboro as a part of United States Office of Education Project No. 5-1042. This program was developed for first-year home economics students and tested in a field experiment in which students worked under the supervision of a home economics teacher.

Requirements for the participants in this study were that each subject be (1) disadvantaged, (2) willing to attend classes, (3) a beginner in sewing, having done no independent sewing, and (4) able to read aloud specified frames of the program. Five participants meeting those requirements successfully completed the program.

Instructions and supplementary material were prepared for the administrator. Preparation of these materials and

considerations of the problems encountered by the administrator during the supervision of the program were an important part of this study.

Information reported in the case studies was obtained by two tape recorded interviews. One interview was scheduled prior to the first class meeting and the other at the completion of the program. Information secured included personal and family background, employment experience, attitudes toward the self-instructional program, specific areas of difficulty, knowledge acquired, and future plans for sewing.

The blouses were scored on a previously developed rating scale. Scores of blouses constructed by the participants ranged from 274 to 294. The mean being 284, the mean score of the blouses made by students participating in Research Project No. 5-1042 who were program-taught was 298, and the range of scores was 200 to 334. The scores of the participants, with one exception, were within one standard deviation below the mean score of the students who used the program.

All participants had positive attitudes toward this method of learning. They believed they had learned to successfully construct a blouse and would now be able to use this knowledge to construct other garments. The administrator believed this program to be a practical method for teaching adults to sew. The results of this study indicate that Sewing Step-by-Step can be used successfully by disadvantaged adults.

APPROVAL SHEET

This thesis has been approved by the following

EFFECTIVENESS OF A SELF-INSTRUCTIONAL  
SEWING PROGRAM WHEN USED  
WITH DISADVANTAGED ADULTS

by  
Sally Wright White

A Thesis Submitted to  
the Faculty of the Graduate School at  
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Approved by

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CHAPTER I  
INTRODUCTION

Individuals who work with disadvantaged adult women have stated that many of that group have expressed the desire to learn to sew. The development of skill in sewing was thought to be one of the means by which adults might improve their economic condition. Such a skill might be used to maintain and renovate clothing as well as to construct new garments. Success in learning to sew could lead to a sense of achievement and thereby to self-confidence and self-respect.

Purposes

One purpose of this study was to record the progress of a small sample of disadvantaged adults as they used a self-instructional program developed for beginning homemaking students at the secondary school level. The adults, like high school pupils who had proceeded through the program, were to use Sewing Step-by-Step as a guide for making a blouse (29). A second purpose involved consideration of the problems a non-home economics person would encounter in administering the self-instructional program and the development and appraisal of supplementary information which such a person would need. This series would include (a) portions of the teacher's

manual, (b) introduction for participants to be read by the administrator at the first class meeting, and (c) record of progress to be used by the administrator.

Recommendations concerning further use of this self-instructional program with disadvantaged adults were to be based on (a) appraisal of the blouses constructed by the participants, and (b) consideration of the problems encountered by the participants as they proceeded through the program. Recommendations of procedures to be used by non-home economics persons administering the program were to be made. The bases for such recommendations were to be (a) appraisal of the directions and lists of supplies for administering the program which were taken from the teacher's manual, (b) appraisal of supplemental material developed as a part of this study, and (c) appraisal of the effectiveness of the preliminary explanations given the administrator as determined by her statements.

#### Background

The self-instructional program Sewing Step-by-Step was revised for the final time in the fall of 1966 after it was accepted for publication. This program had been used in a field experiment as a part of Project: No. 5-1042, of Research Branch, Division of Elementary and Secondary Research, the United States Office of Education. Students taught by this program were superior to students taught by

their teachers on five criterion variables, as indicated by statistically significant differences between program-taught and teacher-taught groups in the multivariate analysis.

The self-instructional program had been field tested as a part of the above project with 57 ninth grade students. However, it was believed that the program might also have potential for use with adults and it was this possible use with adults which was explored in the present study. The writer's interest in working with disadvantaged adults and their interest in learning to sew were major factors in the decision to use Sewing Step-by-Step. It was believed that this program would be made available to disadvantaged adults if it could be successfully used in a community center under the supervision of an individual not trained in home economics.

A successful test of this program in a group situation would be of interest to service organizations such as the Young Women's Christian Association\* and to community or church groups that wish to make learning opportunities available to interested women. Thus the necessity for a professional home economist as administrator or teacher would be eliminated through the use of programmed instruction.

#### Limitations

The program was administered by one person who had a college degree but in a field other than home economics. The study was limited to a small group of interested women who live near the Pearson Street Y.W.C.A. in Greensboro, North

\*Hereafter referred to as Y.W.C.A.

Carolina. It was limited also to the use of the self-instructional program Sewing Step-by-Step in a group situation. New verbal material was limited to the administrator's manual which was prepared for this study.

### Definitions

**Administrator:** The person who administers or directs an adult class in which a self-instructional program is tested.

**Administrator's Manual:** A folder of materials to be used by a person who is not a home economist to prepare herself to administer the program Sewing Step-by-Step.

**Disadvantaged:** Those individuals deprived of one or more advantages that may be considered a fundamental right of all members of a civilized society. These advantages include equality with members of the Caucasian race, of education, of payment for work performed outside the home, and of medical care. This term is used synonymously with underprivileged and deprived.

**Frame:** A single unit of instruction in a planned sequence. It varies in length in a self-instructional program from one sentence to one page and usually concludes by requiring a response from the student.

**Panel:** A chart, graph, diagram, piece of equipment, or passage of text that supplements the frame and is accessible during work on a portion of the program.

**Participant:** One who shares the learning experience with the others in the study. The term is used synonymously with adult student, student, disadvantaged women.

**Programmed Instruction:** The method of teaching in which the program becomes a tutor for the student. It is designed and sequenced to lead the student through a set of specific behaviors which make it more probable that he will behave in given desired ways.

**Program:** The sequence of carefully tested frames leading the student to mastery of a subject with a minimum number of errors. It is synonymous with self-instructional program.

**Teacher's Manual:** The guide accompanying the self-instructional program Sewing Step-by-Step prepared for use by home economics teachers who are using the program in their classes.

## CHAPTER II

### REVIEW OF LITERATURE

Reviews in five recently completed theses (See Appendix C, page 94) dealt with areas of programmed instruction. It was believed that a contribution might be made in this study by reviewing education of disadvantaged adults, since the focus of the present study was on a phase of education of persons in this category.

A survey of literature indicated that many studies have been conducted in which the problems to be solved by the disadvantaged are described; however, in relatively few studies were solutions to these problems presented. Education is considered to have potentiality of helping the disadvantaged improve their circumstances. Crabtree states in his column "War on Poverty":

We need to complete the total task of American education by providing education for the disadvantaged adults who are now caught up in the vicious cycle of poverty and ignorance. Without our help they can have no escape from this treadmill of endless futurity. Education can have no finer purpose (6, p. 56).

#### Who Are the Disadvantaged?

Even though some reports tend to categorize the disadvantaged into a specific salary range and to consider low income the only problem, various aspects of this problem

should be weighed when describing this segment of the population. Many factors are conducive to poverty and often one factor may intensify, precede, or accompany others.

Since income is one of the most tangible bases for grouping people into the poverty class, this area will be discussed first. The President's Council of Economic Advisors used the 1962 price index as a standard in reporting that a family of four is poor if its annual income is \$3,000 or less. A single person is classified as poor if he earns less than \$1,500 per year. With these statistics as a basis, the Administration maintained that between thirty-three and thirty-five million Americans are in the poverty class (19, p. 154).

In 1964 the average family income in the United States was \$7,900. About nine million families, including approximately thirty million persons with incomes of less than \$3,000 and about five million single persons with incomes of less than \$1,500, composed the thirty-five million people in the low income categories. The average income of these thirty-five million people was \$1,800 per year as compared to the overall average of \$7,900 (27, p. 9).

Ornstein was of the opinion that a subsistence level exists in addition to the poverty level of living. He stated that an individual earning between \$2,000 and \$3,000 falls into this category, as does a two-person family earning

between \$3,000 and \$4,000, and a four-person family earning between \$4,000 and \$5,000. By applying these figures to the 1960 census, and adding it to those people who live in poverty, he estimated that seventy million Americans live in one of these two low income groups (19, p. 154).

No one income figure can really distinguish the poor from the affluent. The Economic Report of the President defines the poor as those people whose basic needs exceed their means to satisfy them. Holmes stated that the needs of a family also depend on many other factors such as family size, ages of the family members, health of each member, and place of residence. The ability to fulfill these needs is dependent on current income, past savings, home ownership or other assets and the ability to borrow (11, p. 11).

Wenner stated that being poor may not be the only problem. In addition to being poor, an individual may suffer other afflictions, one of which may be color. For those who are Negro, Indian, Puerto Rican, or Mexican-American, the chances of being a second-class citizen are high. Some of these people are not equal to Caucasians in educational opportunities, cultural advantages, and ability to get a job (27, p. 9).

Even though the majority of the disadvantaged people are white, the non-white minorities suffer the most intense and concentrated number of disadvantages. Wenner's further

statement on the general scope of poverty is:

In a spectrum of grim blight, they stretch across the country, from North to South, from coast to coast, hidden in rural waste lands and submerged in urban squalor. Although the magnitude and the number of their disadvantages vary with the level of their income, many live on the fringe, in a bleak no-man's land, human exiles from the rest of America (19, p. 155).

When the plight of the disadvantaged is hurriedly scanned, it is plain to see that women represent the bleakest side of the picture. After a closer look at the people from impoverished backgrounds, it becomes apparent that the cycle of poverty is a transmitted legacy and that women are its primary perpetuators. There are today more than two-and-one-half million families headed by women with yearly incomes of less than \$3,000. This number represents approximately one-fourth of all poor families in the country; however, one-half of all families headed by women are in the poverty class. Fourteen million women twenty-one years and over, or more than one-fifth of all the women in the United States, are living under impoverished conditions with about six million children growing up in these homes. Over 60 per cent of the women who head poor families have no more than a grade school education. Of one million women between the ages of sixteen and twenty-one who live in poverty, 400,000 are unemployed and 200,000 are unemployable. The ranks of the females living in poverty are joined by the 350,000 youth who drop out of school each year (27, p. 42).

The President's Council of Economic Advisors discussed the poor in its 1964 annual report. In this report the President stated:

Poverty breeds poverty. A poor individual or family has a high probability of staying poor. Low incomes carry with them high risks of illness; limitations on mobility; and limited access to education, information and training .... Poor parents cannot give their children the opportunity for better health and education needed to improve their lot. Lack of motivation, hope, and incentive is more subtle but no less powerful a barrier than lack of financial means. Thus the cruel legacy of poverty is passed from parents to children (27, p. 42).

Persons classified at the poverty level and those classified at the subsistence level are definitely disadvantaged which means that individuals in neither group are able to afford the many goods and services which are considered essential by the majority of Americans. Because disadvantaged cannot afford these goods and services, they are subject to a whole chain of other disadvantages. In a vicious stubborn cycle the fact that they are financially disadvantaged gives rise to other disadvantages which in turn augment their financial deprivation (19, p. 154).

Schwebel explained that the portion of the population characterized as ill-housed, ill-fed, and ill-clothed were once classified as disadvantaged but that now the ill-educated are added to this list (23, p. 646). Education is important because without it there is little hope that the disadvantaged can acquire skills to obtain and keep a job which will help them break from the circle of poverty (19, p. 161). Crabtree specified that those groups most likely to be educationally

disadvantaged are (1) dropouts from public schools, (2) Negroes and other minority group members, (3) Puerto Ricans, Cubans, Mexicans, and Latin American laborers, and (4) foreign born (6, p. 55).

In addition to financial and educational deprivation, Ornstein believed there are many other factors in the lives of people that may cause them to be disadvantaged and, quite often, one family may be characterized by several of these factors. Some suffer from self-deprivation, a condition which may accompany possession of an injured personality. Many disadvantaged persons seem to lack a sense of self-esteem, self-pride, and self-importance. They live in defeat, despair, and feel inferior and exiled from the rest of society. The majority of these people are too disillusioned too many times to have any hope or ambition (19, p. 155).

Ornstein explained that there are those people classified as underprivileged who suffer from environmental deprivation. These disadvantaged are hidden along the rural country side in shacks over the hill and away from our larger highways. They are also buried in the garbage-strewn ghettos of our large cities. These situations are both depressing and discouraging to the occupants (19, p. 157).

Another type of deprivation named by Ornstein is lack of hygiene. There is a high rate of malnutrition and illness in persons in the poverty class. Many have no knowledge of

good health practices and because of their environment would have a difficult time applying this knowledge if they possessed it. They may be unable to pay for medical care and may be ignorant of when they need it. There is one common denominator: insufficient medical care, insufficient food, and insufficient clothing (19, p. 158).

There are many people who are disadvantaged in the area of experience. The majority of them are handicapped by lack of information and awareness about any part of the world except their own limited area. It is reported by Deutsch that 65 per cent of the slum children have never been more than twenty-five blocks away from their homes (19, p. 158).

#### Understanding the Disadvantaged

Galbraith classified poverty into two types, case poverty and insular poverty. He defined case poverty as the plight of those people who suffer from some mental or physical disability that is personal and individual. This plight may be disease, alcoholism, mental illness, mental retardation, or other handicaps. These handicaps can keep an individual from succeeding in his economic and social endeavors. These are mainly the effects of environment and are difficult to remedy (9, p. 11).

Insular poverty is defined as the situation existing in areas such as the Appalachians or West Virginia coal fields,

where an entire section of the country becomes economically obsolete. This description of misery extends to forty or fifty million people in the United States. These people have remained impoverished in spite of increasing productivity and the creation of a welfare state (9, p. 12).

Not only do sections of the country become economically obsolete, but demands for specific jobs change and many jobs become extinct. In the past, many of the poor were immigrants fleeing debt or seeking political or religious freedom. America was a new beginning for them. Land was plentiful and the demand for labor was great. Today, technological revolution in agriculture has put many persons out of work and forced migration to the city. Automation and demand for the skilled laborer forces the unskilled laborers out of the job picture (27, p. 68).

Harrington explained that the poor might say that progress is misery. As society becomes more technological and more skilled, those people who learn to work the machines and receive additional training move up. Those who miss the re-training find themselves at a new disadvantage (9, p. 12).

Those individuals who are disadvantaged in any of these ways are caught in the vicious circle of poverty. Harrington gave an example of this when he stated:

The poor get sick more than anyone else in the society. That is because they live in slums, jammed together under unhygienic conditions; they have inadequate diets,

and cannot get decent medical care. When they become sick, they are sick longer than any other group in the society. Because they are sick more often and longer than anyone else, they lose wages and work and find it difficult to hold a steady job. And because of this, they cannot pay for good housing, for a nutritious diet, for doctors. At any given point in the circle, particularly when there is a major illness, their prospect is to move to an even lower level and to begin the cycle, round and round, toward even more suffering (9, p. 15).

As can be observed from the above statement, it is extremely difficult for an individual to break out of these circumstances. Harrington stated that the help and resources of the larger society can help the disadvantaged break away from their level of poverty (27, p. 14).

Harrington gave as one explanation for the status of the poor the fact that they made the mistake of being born to the wrong parents, in the wrong industry, in the wrong part of the country, or in the wrong racial or ethnic group. He stated, "Once that mistake has been made, they could have been paragons of will and morality, but most of them would have never had a chance to get out of the other poverty America" (9, pp. 14-15).

Ayer noted that poverty of mind and spirit are related to poverty of the means to provide material needs. He believed that recognition of the danger of poverty of mind and spirit are of prior concern in any plan to successfully involve man in an effort to eliminate his own poverty (2, p. 540). Lack of desire to achieve and lack of self-esteem are evidences of

this poverty of spirit (12, p. 49). Maud stated that the common basis of any individual's confidence is to believe himself significant (15, p. 17). Qualities that are eventually destroyed by ignorance are self-respect, mutual respect, understanding, and sympathy. These same qualities are fostered by knowledge and education (10, p. 123).

Poverty and the resulting level of living of the disadvantaged quite often nurture the attitudes and values that play a part in keeping the individuals at this poverty level. A poor self-image is likely to persist when it is reinforced by lack of initiative, lack of motivation, defeatism, resentment, bitterness, and apathy. The disadvantaged quite often have short-term goals, "different" moral standards, and often place little value on education. These inborn and ingrained traits and attitudes make any change for the better difficult (27, p. 85).

Harrington explained that while we search for a solution to the problem of poverty, we must keep in mind that an answer must include a new life with better possibilities. He quoted Freud to reinforce his own opinion that a change of attitudes and formation of new outlooks are not easy to achieve.

We shall probably discover that the poor are even less ready to part with their neuroses than the rich, because the hard life that awaits them when they recover has no attraction, and illness in them gives more claim to the help of others (9, p. 121).

Holmes suggested that the basic fears of the disadvantaged are lack of food and shelter. Many disadvantaged have had a struggle for survival that most people could not understand. This type of existence affects their attitudes and beliefs. Holmes further stated that adult educators must accept peoples' cultures. Change can be planned with people but not imposed on them. Middle class standards may need to be set aside in working with individuals who do not have the necessities of life. Understanding the disadvantaged is more far-reaching than making them economically resourceful. Individuals should be developed as human beings, not just as employees (12, p. 50).

Harrington reported an example used by Douglas of the dilemma encountered when working with members of an underdeveloped society. A swamp in India produced mosquitoes which in turn carried disease to the natives of the surrounding area. The swamp can be sprayed for a few dollars to exterminate the mosquitoes, thus allowing the natives to survive; however, human beings need more than the privilege of existing. Harrington said that this example is descriptive of America. Medical advances make it possible to live past sixty-five, but little else has been done to help the disadvantaged live honorable and satisfactory lives. Improved living in all areas should be available as well as bare survival (9, p. 120).

Wenner stated that understanding the poor involves knowledge of their desires and needs. He described the disadvantaged as voiceless because they have had no way of communicating with the more affluent, and this lack of communication has caused the efforts of those trying to help them to be inadequate. The disadvantaged are asked to participate in decision-making and planning for many of the new programs. As these methods open new avenues for communication, interested individuals are understanding the disadvantaged to an extent that was not previously possible (27, p. 11).

#### Education and the Disadvantaged Adult

Ornstein explained that although no single program can be a solution to deprivation on a mass scale, education is most important (19, p. 161). Education is defined as a vital instrument for social betterment. In addition to giving people information, it enables them to learn how to live (20, p. 1). Education is necessary for the disadvantaged because without it they will be unlikely to acquire the skills needed to obtain a job. Without employment, breaking from the complex circle of impoverishment would be an impossibility (19, p. 161). The Adult Education Committee of British Ministry of Reconstruction indicated their attitude toward adult education in 1919 when the summation of its opinions were stated as follows:

Adult education must not be regarded as a luxury for a few exceptional persons here and there, nor as a thing which concerns only a short span of early manhood, but that adult education is a permanent national necessity, an inseparable aspect of citizenship and therefore should be both universal and lifelong (10, p. 63).

Even in 1919, the need for adult education for all, not dependent on social or economic conditions, was apparent to educators. However, in the present decade adult education for the culturally and economically deprived has been of national concern. According to Garrett, this movement toward inclusion of all levels of society is so significant for American culture that it will in later years be looked upon as an integral step in adult education (1, p. 261). Reasons for the importance of continuing education for all adults were summarized at the National Conference on Fundamental Problems in the Education of Negroes. They were:

- (1) The type of education often given youth has not been of a character to carry over into adulthood;
- (2) the world is changing so rapidly that however well one may be educated at one time, he lags in the procession unless he continues to make adjustments by "keeping up";
- (3) the intricate demands of a materialistic age demand new designs (20, p. 1).

This previous summary can be applied to general adult education as well as the education of the disadvantaged adult. Although the aims of education are the same for all adults regardless of economic status, it is now believed that disadvantaged adults develop their own attitudes and values and therefore require special methods to meet their problems and needs (7, p. 284).

One pressing problem of the disadvantaged adult is that his children tend to stay in his circle of poverty. One delegate to the National Conference on Education of the Disadvantaged said, "Educators are not beginning in the right place. We're beginning with the child. We should begin with the parents" (26, p. 11). Although these parents care about the welfare and progress of their sons and daughters, but they lack understanding of how they can help and they are often deficient in the skills that would be needed to help their children with academic problems. Most disadvantaged need guidance and encouragement, for they often lack confidence. Mitchell speaks thus of disadvantaged parents:

Many have hope for their children but have little formal education themselves and know very little about studies or how to help their children. Most parents care a great deal; but care without knowledge....(14, p. 412).

A basic education program for adults would help families in poverty to understand the educational needs of their children (26, p. 15). Ayer called the education of the parents, these disadvantaged adults, reeducation. This is reeducation of those whose schooling or lack of it leaves them unable to be functional and effective participants of society. He explained reeducation as a new faith in the intellectual potential of each adult and child. It means adaptations and re-adaptations in methods of teaching until the interests of each person are discovered and used to aid in his continuing development (2, p. 542).

Reeducation does not stop with the uneducated, unemployed, unneeded person who must be reeducated in order to again become a contributing and self-supporting member of society. It must also continue for the educated, employed and economically secure person who must be reeducated to understand the true nature of poverty (2, p. 542).

Vice-President Hubert Humphery placed education at the heart of a needed program to eliminate poverty. This program is a preventive measure and would be a long-range one to aid those presently disadvantaged. He said:

The people who have fallen through the cracks of our affluent society are those for the most part who have not had the educational equipment to keep up with job evolution .... The family situations are lacking in conversation, in books, in enrichment experiences .... Most importantly, it is by appealing to an active imagination, by feeding creatively an inner world of feeling, dream, and aspiration, that we will tap the wells of motivation to go on for more (12, p. 50).

He also said, "a sick or hungry individual is never an eager or alert learner." Improvement in other areas of the social services--in health, in housing, in consumer protection, in urban development and in transportation--have a positive effect on education (26, p. 55).

Garrett designated three important tasks confronting "culturally deprived adult education." There needs to be (1) continuing inquiry, both scientific and philosophical, into the foundations of education for the adult poor; (2) a hard core of professional educators developed and oriented for

work with the deprived; and (3) programs with imagination and understanding (7, p. 285).

#### Help for the Disadvantaged

Education, as previously discussed, is one important instrument that can be used in the fight against poverty. Vice-President Hubert Humphery said that educators are being called upon to find ways to close the gap between the ideal and the realities of education. Although this is not a new task, he explained that at present educators are closer to a true understanding of the methods for closing this gap than ever before. Most important, greater opportunities and means are available to put these methods to work (26, p. 55).

Miller commented in an address to the National Conference on Adult Education about the aid available for adult education. Factors which support the increased emphasis on adult education are stated by him as follows:

The visible symbols of the national commitment surround us: multiplying resources; public and private programs with new and promising support; and an old history of Congressional interest in extension and adult education (12, p. 49).

Many congressional acts have been passed in the last decade to implement the anti-poverty program, some of which deal directly with the disadvantaged and their families. The anti-poverty programs offer the home economics profession unlimited opportunities to work with culturally and economically deprived families.

Home economists can extend their program and serve these individuals more effectively. The challenge Sherman presented to home economists was:

To reach more people, to refocus program emphases, to innovate and experiment with new ideas, to encourage and promote cooperative ventures with other existing groups and agencies and to provide a unique type of leadership in national and community affairs that have direct or indirect influence upon present and future homes and families ... (7, p. 285).

The Economic Opportunity Act of 1964 was the first congressional act passed to aid persons in the poverty class. Funds furnished by this act enable educators to fight poverty with education (12, p. 49). One of the challenges the Economic Opportunity Act offers to home economists is that of cooperation with other agencies in educational programs and the equipment of existing and prospective leaders with the necessary knowledge and skill to participate effectively in projects for the culturally deprived. Also, the training programs need to be extended to effectively serve the low income adults. Women especially need these training programs to make them fruitful members of the family and society (7, p. 284).

The Economic Opportunity Act is subdivided into four large areas: (1) Title IA, Job Corps, (2) Title IB, Work Training Programs, (3) Title IIA, Community Action Programs, and (4) Title IIB, Adult Basic Education (21, p. ix). Administrators of the Job Corps Title IA work with young men

and women from the ages of sixteen through twenty-one who are unemployable because of lack of education and lack of job skills. These young people are placed in residential centers to receive specialized training, as well as general education, to be better prepared to cope with adulthood (21, p. 115).

Neighborhood Youth Corps are provided for under the Economic Opportunity Act, Title IB. This program is a work-training effort to encourage young people of ages sixteen through twenty-two to stay in school. It provides them with constructive and rewarding work experiences in community service (21, p. 119).

Impetus for Project Head Start was given by Title IIA of the Economic Opportunity Act. Lambert reported that in addition to providing opportunity for disadvantaged children to be ready for school, the Head Start program also makes employment available for some members of the families from which the children come. Families are visited in an effort to upgrade the home conditions. As a part of educational opportunities offered to the parents, there are discussion groups for the purpose of guiding parents in the processes of self discovery and self-understanding. Health practices are also taught. Family participation is encouraged in all phases. One wife reported, "We never used to go anywhere. Now we go to meetings, of all things. We go to meetings, but we have a good time and we learn a lot." A basic purpose is for the family to sustain the classroom influence on the children (22, pp. 28-30).

A second congressional act dealing with the disadvantaged was the Manpower Development and Training Act of 1962. As a part of this act, workers are trained for skilled labor so that they will be able to acquire employment. This training includes basic education for workers who had been school drop-outs. Each individual is evaluated and exactly the type of training that will best help him to become a productive citizen is offered (21, p. 171).

A third act of Congress in which aid was provided for the disadvantaged was the Elementary and Secondary Education Act. This was passed in 1965 and one and one-fourth billion dollars were appropriated for education. Emphasis is placed on special services for children of low income families (16, p. 545).

A fourth act was the Vocational Education Act of 1963. This act was passed to maintain, extend, and improve vocational education programs and to develop new programs for gainful employment. Instruction, that may not in itself be vocational, is also furnished in order to correct educational deficiencies or handicaps that prevent the students from benefiting from vocational education (21, p. 183).

The revised National Defense Education Act, passed in 1964, can be added as fifth act available to help the disadvantaged. Loans and fellowships are made for students in accredited business schools and technical institutes. The appropriations from this act are also used to support summer

institutes for the education of the culturally deprived (16, p. 545).

The Appalachian Regional Development Program was allotted eight million dollars to allow a state to construct vocational education facilities in the Appalachian region. The federal grants furnish 50 per cent of the funds for the educational agencies of each state involved (21, p. 6).

Garrett believed that home economists could do their part by cooperating with and aiding the people who administer programs designed to combat poverty. Many phases of home economics encompass the areas which need support in this movement. Garrett also stated that those people fighting the war on poverty are also exploring new ways of assisting women in blending and combining their roles of homemaker, mother, wage earner, and citizen, so that each role reinforces the other with minimal stress and discontinuity. She further explained that several parts of this war on poverty are directed toward the potentiality of American women. The full participation of women in American society is of significance to the home economics profession. Garrett added that the numerous ways in which women represent an unexplored and underdeveloped normal resource have long been recognized. Women evidence potentiality in the nation's economy and represent an under-developed force of service. This fact is even more significant in the case of the underprivileged women (7, p. 284).

An effort is made to understand what effect these legislative programs have on the disadvantaged adult. As this is being done, the potential available through home economics for guiding these people should also be viewed. Beach asked if perhaps the curriculum should be changed to make it more closely related to the needs of the large number of culturally deprived students currently enrolled (3, p. 780). He said that too often the program in the home economics class does not resemble the home situations of these deprived students (3, p. 781).

The contrasts between the standards of the school and those of most culturally deprived homes are most obvious, when viewed from the standpoint of the kitchen with an automatic oven as opposed to that with a two-burner hotplate. The contrasts are also striking whether one is standing on a carpet or dirt floor, sitting on fabric or wood, washing in a machine or tub, basting silk or patching denim, matching drapery or simply hanging shades. These contrasts challenge home economics teachers to turn their attention to the problems of the economically and socially deprived (3, p. 781).

Beach further explained that if home economics educators accept the challenge of working with the disadvantaged and using methods designed to reach them, the following results are possible:

1. Students will learn something about themselves and the problems they face, as well as possible solutions.
2. Students will learn that they can, after all, do something socially useful, that as persons they have potential and ability to improve themselves and society.
3. Students will learn that school can be good for something and that classroom experiences can be related to life as they know it.

4. Home economics will take its rightful place in the eyes of others as one of the most useful and valuable of the areas.
5. Home economics as a field will achieve both status and its accompanying financial support as it joins the new trend in American education - - - education for the culturally deprived (3, p. 782).

#### Programmed Instruction and the Disadvantaged

A vast quantity of appropriate, well-prepared, validated educational materials is needed for education of the exceptional, the disadvantaged, and other needy groups of people, according to Abraham. Educational materials must meet the needs of various racial groups and people with different cultural backgrounds or from different socio-economic backgrounds. He considered programmed instruction to be one of the most promising of the new teaching devices (27, p. 5).

Bender stated that when the adult is ready to begin to learn he almost always possesses both information and misinformation. The disadvantaged quite often have prejudice toward subject matter as an added hindrance and may weigh incoming information against what they have in their minds and reject any disturbing new ideas. Study habits of the disadvantaged may also be poor or nonexistent, resulting in greater emphasis on speed than on depth of understanding (25, p. 49).

Bender further stated that adult students who have the above handicaps may find programmed instruction valuable

because they are guided in the process of learning. There is no teacher "treating him like a school kid." The adult student and the teaching force will be in constant contact so that he cannot easily stray from the subject, cannot learn errors, and cannot move forward without having learned what preceded the present task (25, p. 49).

Mager explained that to develop good learning techniques, or to merely keep from destroying those that already exist, it is necessary to eliminate from our instructional practices elements that handicap the learning situation. Frustration, monotony, insistence on perfect performance, negative attitudes, fear, anxiety, boredom, or uncomfortableness are such handicapping elements. To eliminate these handicapping elements is quite an order; however, a positive learning situation can be achieved by arranging the instructional system so that it rewards, rather than punishes, is infinitely patient and demonstrates enthusiasm for the subject and for the process of learning. When these desirable elements have been made a part of the instructional system, learning is much more likely to occur if the subject matter is relevant to the situation, if the system contains knowledgeable and accurate components, and if it is one that encourages the student to participate in the instructional process. These are specific goals of programmed instruction (26, pp. 5-6).

Abraham stated that some handicaps which make students appear to be slow-learners are studying in their second language, living in a culture different from that of other students, financial deprivation, a poverty level of living, or poor teaching. These handicaps may affect a larger proportion of adult students than of school-age students. Programmed instruction can help to combat these handicaps by individualizing the subject matter so that it meets the needs of each adult student. Languages, as well as local customs, can be taught in programs to raise the disadvantaged adult's level of understanding of his surroundings. Enrichment courses can be supplemental to job training (27, p. 6). The major reason programmed instruction can be used to teach so many different kinds of people is that it is a method of teaching that adapts the learning materials to the way learning occurs in human beings. Brett explained that it is based on the theory that anyone can learn if he can approach the subject matter in steps small enough to comprehend each progressive step with ease. Individuals using programmed instruction work at their own speed, constantly moving from the known to the almost known, leaning into what is to be learned. Rapid learning with high retention may be the rewards of programmed instruction (30, p. 6).

The disadvantaged need encouragement and confidence. Educators contend that mastery of each frame in programmed

instruction gives the student greater confidence, as well as motivates him to continue as the material becomes increasingly difficult in succeeding frames (31). Bender states that the mere act of turning a finished page can be highly encouraging, as can the completion of a small book or programmed text. In addition to the confidence that may be gained, lack of competition with other learners may be another reason for the success of programmed instruction when this method of instruction is used with disadvantaged adults (25, p. 54).

Bender commented that programmed instruction may prove to be a key teaching technique of the future for educating adults for employment (25, p. 48). Turpin reported that in the United States the large number of unemployed people indicates the need for a massive effort to educate illiterates and school dropouts and to retrain the jobless. Bender also stated that it is clear that the traditional "teacher-in-the-classroom" concept is not expansible enough to cope with the new educational needs of adults (25, p. 48).

Stolurow believed one current need is to see that programmed instruction is used to effectively promote the intellectual and cognitive development of students. He also said, "Programmed instruction and teaching machines are important to the transition from mass education of individuals to the individual education of masses" (32, p. 270).

Brett believed the name programmed instruction to be wrong. He stated that "It should be P.E. not P.I. and P.E. means Programmed Escape." He further explained that learning through "P.E." can be and should be a means to mankind's escape from illiteracy, ignorance, and poverty. This escape is facilitated through general education as well as job training (30, p. 5).

Bender said that even though there may be situations in which programmed instruction will compete with traditional methods, every indication is that it will be a valuable aid rather than a threat. In any case, the need for educational advance is of such magnitude that every method available should be fully explored (25, p. 55).

The major setting in which programmed instruction has been used with disadvantaged adults has been in correctional institutions. Brett stated that 97 per cent of inmates in prisons were born and reared under deprived socio-economic circumstances. This would indicate that the greater majority of inmates could be classed as disadvantaged. A disparaging attitude toward education is one basic characteristic of the environment from which the disadvantaged come; thus an individual making good grades is considered a "square". This attitude becomes so ingrained in the personality that the disadvantaged may avoid any attempt to help them educationally (30, p. 5).

Bender stated that a person in a corrective institution needs instruction if he is to be rehabilitated. This person is likely to expect failure since he has been a constant looser. He failed in his adjustment to normal society; he failed in school. McKee said, "He had even failed in crime, or why else would he be in prison?" As a result of previous failures, placing an inmate in a traditional classroom environment is often a guarantee of further failure. He has been conditioned to reject the authority represented by the teacher and expects failure similar to that experienced in other classrooms he has known (25, p. 54).

Brett believed there to be a more deeply ingrained effect than fear of failure, namely the wish to excel. Even though the inmate expects failure, programmed instruction can set the stage for success by guiding the student through a series of successful small steps (30, p. 5). This taste of success can motivate this type of person to want to learn. Elimination of the traditional teacher, who may be regarded as a threat to the adult that has continually failed, is one asset of programmed instruction. Freedom to proceed at each individual's own rate of speed is another characteristic that enables the disadvantaged adult to succeed with programmed instruction (25, p. 53).

The Correctional Education Department at Maryland Penitentiary found programmed instruction to be a successful

way to motivate these adults to further their education. Brett explained that programmed instruction meets all three needs of correctional education: it is different, it is meaningful, and above all, it is acceptable (30, p. 5).

## CHAPTER III

### PROCEDURE

#### Purposes

One purpose of this study was to examine intensively the problems and successes experienced by a small group of disadvantaged adult women as they used a self-instructional program developed for ninth grade home economics students to learn to construct a blouse. Appraisal of the garments constructed by the participants and interviews were expected to furnish information necessary to indicate the potential of this self-instructional program as a learning device for use by disadvantaged women. A further purpose was to study the problems a non-home economics person would encounter in administering the program. The lists of instructions and supplies recommended in the teacher's manual which accompanies the program were appraised as to their suitability for use when preparing to administer the program in adult classes.

#### Securing Subjects

The director of Federal Projects for the Greensboro Public Schools suggested a visiting teacher in the Greensboro School system as a person who might be interviewed about the possibility of working with a group of disadvantaged women.

This visiting teacher works with disadvantaged families and visits in their homes to determine if assistance of any type is needed. She counsels with them concerning their problems and works with the entire family to keep the students in school. Her interest in the disadvantaged, her contact with these families, and her enthusiasm after completing this program personally qualified her to serve as administrator of the self-instructional program.

The visiting teacher stated that several women, in whose homes she visited, had expressed a desire to learn to sew. Also she contacted the Pearson Street Branch of the Y.W.C.A. to determine if any members were interested in learning to sew. One member of this Y.W.C.A. was employed by the Manpower Program and stated that this particular method of teaching sewing would be helpful to many of their clients. The Manpower Program is an outgrowth of the Manpower Development and Training Act of 1962. It is privately funded and field workers are employed to seek individuals who have moved into the city from rural areas. The following kinds of assistance are given: job placement, job training, basic education, and urbanization. When the objectives of this study were explained to personnel of the Manpower Program, the director expressed interest and selected from their files names of women who could benefit from this type instruction. Through the teacher's visitation

and the assistance of the personnel of the Manpower Program, prospective participants were interviewed.

#### Securing a Building

Several considerations were relevant concerning a decision about the location of the classes. The building should be easily accessible to the participants as well as the administrator. The classes should be located in surroundings that would not cause disadvantaged women to feel uncomfortable. The cost of rental facilities would have to be nominal.

The home economics department of Gillespie High School was considered as a possible meeting place. This location was not feasible because there was no one to open the building for night classes.

Since the administrator was a member of the Y.W.C.A., the local branch was next considered as a possible meeting place. The executive director of the Pearson Street Branch of the Y.W.C.A. was contacted, and the nature and purpose of this study were explained to her. She offered the facilities of the Y.W.C.A. with no charge when she learned of the type of participants to be included in the study. A room equipped with large tables and sewing machines was made available. Other facilities furnished were a locked storage closet, an iron, and an ironing board.

### Subjects Selected

Eligibility for participation in this study was based on level of living, interest in learning to sew, previous sewing experience, and reading skill. Each subject was to be (1) disadvantaged, (2) interested enough to come to class regularly, (3) a beginner in sewing, having never made a garment by herself, and (4) able to read aloud specified frames of the program.

Fourteen women were interviewed and, of this number, three had insufficient reading ability and two could not attend night classes. Nine women were enrolled for the class; however, only eight attended the first class. One of the original eight did not attend the second class meeting because of demanding home responsibilities (she had eight children) and another did not attend because it was necessary for her to be away from Greensboro for several weeks. These occurrences left the class with six of the original participants who had been interviewed. Another participant progressed only half way through the program. She was, however, interviewed and included with the case studies.

### Preliminary Interviews

A list of names and addresses was compiled from (1) the women visited by the school personnel and (2) clients of the Manpower Program. Interviews were arranged through telephone introductions and introductory visits to those

people who did not have telephones. A small portable tape recorder was used to record the questions and answers during the interview. The preliminary interview schedule of twenty-five questions included personal and family background, employment experience, educational record, sewing experience, and information about the uses the prospective participant would make of acquired sewing skill.

After the first three women were interviewed, their speech and level of educational achievement caused the writer to doubt their reading ability. Even though they stated they could read the booklets, a short reading test was added to the information collected during the interviews. This collected information was to be used in the case study of each participant.

#### Preparation of the Administrator

It was assumed that the visiting teacher would need to read through the program and portions of the teacher's manual and that she would need supplementary help since she was not a home economist. A series of conferences was scheduled with her also. The first of these was held at the University of North Carolina at Greensboro for the purpose of familiarizing her with this self-instructional program and discussing the plans for the study. She was given the self-instructional program and accompanying panels in order that she might read through the program.

Extensive telephone conversations were used as a means of clarifying many aspects of this study and of planning for the classes. A second conference was held at the branch of the Y.W.C.A. so that the researcher could meet the director of the Y.W.C.A. and observe the facilities.

Prior to the beginning of the classes, two additional conferences were held with the administrator to explain the use and content of the folder assembled for her. Use of the panels, exhibits, and samples was also explained.

#### Explanation of the Contents of the Administrator's Manual

Since the administrator was not a home economist, it was assumed that she would be interested in only part of the teacher's manual, but that she would need additional help. Portions of the teacher's manual were selected to be included in a folder for her. These were:

1. Characteristics of programmed instruction
2. Purpose of this program
3. Objectives and content of the program
4. Role of the teacher when using the program
5. Directions for preparing sewing machines and supplies needed for students
6. Preparation of the classroom

In addition to the portions selected from the teacher's manual, an introductory statement was prepared to be read to the students. Also, a check sheet was included with specific

points listed at which the garment was to be examined by the person administering the program. For this reason, each of the above portions of the administrator's manual is discussed separately.

Characteristics of programmed instruction were included in the administrator's manual because this is a new method of teaching for the administrator and the women participating in the program. The characteristics mentioned were extensive use of students during the development of the program, subject matter presented in small steps, logical sequence, student's actively responding, immediate confirmation of responses, student's working at own rate of speed, and low error rate.

The purpose of the program was included in order that the administrator be made aware of the point of view of the writers of the program. Transfer to other sewing tasks as well as understanding of the processes were types of learning included.

Behavioral objectives and content of the program were considered important material to be included in the administrator's manual. This section from the teacher's manual presented a condensed version of what a student who had completed the program should be able to do. The administrator would need to be aware of what subject matter was included in the program as well as specific skills taught.

The role of the teacher was included in the administrator's folder to acquaint her with the duties she, as well as the teachers of high school classes, would be expected to perform. This portion informed the administrator that even though the program was self-instructional, she had the active role of checking the student's work when necessary and giving individual guidance.

Directions for preparing sewing machines and supplies needed for the students were considered necessary information to be added to the administrator's folder. These included directions for making seam guide lines on the sewing machines and labeling the machines. Supplies needed by the students were also listed. The adult class would be similar to the high school class with respect to these necessary preparations.

Two sections were prepared for the administrator's manual which were not printed in the teacher's manual. These were an outline of the procedure to be used at the first class meeting and a check sheet on which progress of participants could be recorded.

The outline of the procedure included a statement to be read to the class at the first meeting. This was to be followed by participants responding to introductory frames in the program. Types of frames and symbols used in the program were then to be explained (See Appendix B, p. 91).

The record of progress consisted of questions which corresponded to stages in the program at which the administrator was to examine the progress of the participant or stages in which a specific step was to be checked. The questions directed the attention of the administrator to the detail which was to be examined (See Appendix A, p. 85).

#### Preparation of Equipment and Supplies

The equipment and supplies necessary for conducting the class were assembled and transported to the designated classroom at the Y.W.C.A. Supplies needed were (1) program booklets, (2) panels, and (3) exhibits. Five additional sewing machines were loaned by the university and these also were moved to the Y.W.C.A. for use in the classes.

#### Classroom Procedure

Monday and Wednesday were chosen by the administrator as the most convenient evenings for class. The classes were to meet from 7:30 p.m. until 9:30 p.m.; however, quite often the participants arrived as early as 7:00 p.m. The classroom had eight large tables suitable for cutting and sewing. Each participant had a machine for her own use and was responsible for the neatness of her working area. She set up her own work area and cooperated in arrangement and placement of panels, exhibits, and pressing supplies. After class the participants placed all equipment and supplies in the storage closet.

### The Final Interviews

After completion of her blouse, each participant of the class was interviewed again. This interview, recorded on tape, was concerned with each participant's (1) attitude toward Sewing Step-by-Step, (2) attitude toward learning by self-instructional programs, (3) problems that occurred throughout the study, (4) specific areas of most difficulty, (5) acquired sewing skill, and (6) future plans for sewing. The information provided by this interview was a part of the case study record of each participant.

### Appraisal of Blouses

A previously-developed rating scale was used for scoring the blouses. This rating scale had been developed for use with Sewing Step-by-Step as a part of Cooperative Research Project No. 5-1042, contract OE 5-10-041. The finished blouses were brought to the School of Home Economics for scoring.

### Return of Blouses and Follow-up Visit

After the blouses were scored, a visit was made to each participant for the purpose of returning her blouse. The participant's sewing plans and progress she had made in her sewing after conclusion of the class sessions were discussed. The writer left her phone number with each participant and offered to answer questions when problems were encountered in future sewing projects. This offer was made to encourage each participant to continue to use her newly acquired sewing skill.

CHAPTER IV  
DESCRIPTION OF CASES AND  
ADMINISTRATOR'S INTERVIEW

One purpose of this study was to examine the problems and successes experienced by a small group of disadvantaged adult women as they used a self-instructional program to construct a blouse. The other purpose was to study the problems a non-home economics person would encounter in administering the program.

Each participant in the study is described as a case study in this chapter. Personal background, experiences encountered while progressing through the self-instructional program, and attitudes expressed by the participants toward the program, are described. The information reported was obtained from tape-recorded interviews, blouse scores which indicated quality of workmanship, and observations of the administrator. In general, the sequence in which the information is reported is the same for each case study. A summary of cases is presented in Chapter V.

Participant D

Participant D was a 38 year old Indian woman who had lived in a rural area of northern North Carolina where she was born, until five years ago, when she moved to Greensboro.

She was living in a one-room apartment and shared a bath with four other tenants. Observation of her room revealed a neat, clean room with red curtains and bedspread of which Participant D was very proud.

Participant D was employed at a local laundry where she had ironed linens for approximately five years. Her hours at the laundry were from 7:30 a.m. to 5:00 p.m. and her wages totaled \$49.16 per week. Before moving to Greensboro, this participant had stayed in her father's home and managed his household. The only other work experience Participant D had had was as a waitress. She was self-supporting.

Her education was terminated at grade ten because her mother became ill and she was needed at home. One class in home economics was the extent of her formal sewing training. Her older sister could sew but was not living in the father's home when Participant D became most interested in sewing. In school she had made a skirt; however, no one had helped her with sewing since that time. A sewing machine was available for her use and she thought it would be interesting to learn more about sewing. She gave as one reason for wanting to sew, "I could use the sewing to make things for myself." Prior to the study, this participant had purchased all her clothing but thought she would like to learn how to sew for herself.

Participant D completed the program in thirteen class meetings. She believed she had learned many things about sewing. Specific skills mentioned were threading the machine, winding the bobbin, selecting the pattern, selecting the correct amount of fabric, and using the information on the pattern envelope. Participant D was especially pleased with learning to understitch and stated that this was a skill she would enjoy using because it improved the appearance of the garment.

Panels and illustrations in the booklets were considered helpful, especially when they accompanied written explanations. Participant D stated, "The reading was good, but then the pictures showed you what to do." She said that the booklets were much easier to follow than the pattern guide sheet; however, she believed that information learned from the booklets would later help her to use the pattern guide. She said, "I sure like those practice things we did." The presence of an administrator was reassuring to this participant.

One part of the program she would like to have changed was responding more than once with the same answer. Participant D thought she could learn the first time without repetition of an answer. Similarly Participant D believed that when an illustration was given, this should have been enough and that no questions should have been asked about illustrations.

Construction of the blouse was the aspect of the program enjoyed most by this participant. She found the most difficult step in the program to be setting-in the sleeves.

The score of the blouse constructed by Participant D was the highest of the scores by those in this study. It was 294, just two points lower than the mean score of the high school students who were program-taught.

#### Participant E

Participant E was a 21 year old Indian woman who moved to Greensboro approximately two years ago. She was born in a rural area of southeastern North Carolina where she lived until moving to Greensboro. A younger sister shared an apartment with this participant on the second story of a large home which had been converted into three apartments. The five tenants in these apartments shared one bath.

For approximately two years she had been employed as a sales clerk at a local discount department store. Participant E had no other job experience. Her wages were \$1.45 per hour and she worked 40 hours per week.

Participant E was a high school graduate and she had taken home economics. She had made a gathered skirt and a sleeveless reversible blouse under the supervision of the home economics teacher but had done no independent sewing since that time except some hand-hemming. No one in her family could sew. She did not own a sewing machine; however,

the owner of the apartment in which Participant E lived had a sewing machine which the tenants were allowed to use.

Prior to the classes Participant E said, "I would like to learn more about sewing so I can make my own things. Then I would know enough to sew on my own." She believed that she could save money by constructing some of her own garments instead of having to purchase all her clothing.

Participant E completed the program in twelve class meetings. She was absent one week and stated, "I think the only time I got confused was when I was rushing to try to catch up after I missed those classes. I skipped over part of the program and didn't do my answers and that really confused me." Only after she was advised by the administrator to slow down and was told that it was not necessary to keep up with anyone, did she resume a more systematic progression in her learning. Participant E explained that the booklets and responses kept her moving through the program and also kept her motivated.

This participant stated that she had learned to thread the sewing machine. She made special mention of learning to measure herself and learning how to determine what pattern size to purchase. She considered the process of putting-in sleeves to be difficult; however, appearance of the sleeves was satisfactory. Skills mentioned by Participant E as specific areas of learning were setting-in sleeves, attaching

facings, and clipping. She was enthusiastic about understitching and learned why staystitching should be used.

Programmed instruction was a method of learning that Participant E enjoyed. She found the illustrations in the program, as well as the explanations, very helpful. Immediate confirmation aided Participant E in knowing whether her answers were correct or incorrect.

The parts of the program Participant E enjoyed most were cutting out and constructing the garment. She did not object to reading the booklets and to answering the questions except when she felt they were repetitious. This participant stated, "...maybe you could leave out a couple of those questions. Like when it said the same thing three or four times. Maybe about two times would have been enough."

She thought the program was easy to understand. Even though the panels were helpful, the booklets helped her more than anything. Participant E considered the samples very valuable and she said, "The practice things helped a lot because if you made a mistake, then you just keep practicing and practicing until you could do it."

The score of the blouse constructed by Participant E was 288. This score was one half of a standard deviation below the mean score of the high school students who were program-taught.

Participant E's plans for future sewing included making a shift. She thought it would be similar in many ways to making a blouse and believed the skills and knowledge learned in class would be sufficient. She had purchased extra fabric to make a matching skirt for the blouse. This she began during the last class and completed at her home.

#### Participant J

Participant J was a 26 year old Negro woman who was born in a small town in northern North Carolina. After completing high school, she lived in Washington, D.C., until the death of her husband. Participant J and her three children, ages seven, six, and five years, lived with her parents. She was unemployed, but had previously worked as a waitress. Since the death of her husband she had received a monthly check of approximately \$40 which was her only source of income.

Even though Participant J had completed the twelfth grade, she had never been enrolled in a home economics class. Her mother constructed garments from time to time and had tried to teach her daughter to sew. However, Participant J had never completed a garment.

When asked if she would like to learn to sew, Participant J stated, "Well, I think that I would like it." She explained, "I won't be here after my daughter gets out of

school...I am going back to D.C. and I won't have my mother to sew for me. If I can sew some, I won't have to buy everything." She believed that the ability to sew would result in smaller clothing expenditures for herself and her children. She also thought the children would be proud of clothing made by their mother and that they would be able to have more clothing. Clothing for her family had been purchased except when Participant J's mother constructed garments for them on a treadle sewing machine.

Participant J completed the program in fourteen class meetings and seemed to enjoy taking part in the study. This participant stated that even though she had never used a sewing machine, she believed that she had now learned enough about the sewing machine to be able to use it with a certain amount of confidence. This was her first experience in cutting a garment and using a pattern. Marking with the tracing wheel was also a completely new experience. She was especially pleased with the traced markings and stated, "It showed me just where to stitch and I liked that." Other procedures mentioned as being helpful were selection of pattern size and using the instructions on the pattern envelope.

Participant J indicated that she had learned a great deal from the construction portion of the program, and she considered programmed instruction an ideal way to learn.

She explained, "I like that you had a book and could read it as you go right along. You don't read the whole thing and then do all the work. You work right along with it while you read."

There was no part of the program that this participant disliked. She liked to sew very much and would change nothing about the classes. The only problem mentioned by Participant J was difficulty making a straight line of stitching.

The panels were considered helpful because they clarified ideas, helped her understand the methods, and aided her in visualizing the finished product. The panel containing the half-completed blouse was considered most helpful. The practice samples were beneficial in learning how to under-stitch and how to set-in the sleeves. In addition to the visual aids, responding to the frames aided learning. She stated, "Well, writing down the answers helped me, because I wouldn't have known a lot of that and I sure wouldn't have remembered."

The administrator gave Participant J assistance when needed but often urged her to reread the frame in question. Participant J believed that having an administrator was helpful, especially when there were problems or errors to be corrected.

Participant J said that when telling someone about the program she would say, "I started this sewing class by

reading. I have to read it to learn how to sew before I can do it. By reading, then, I learned to start sewing." Participant J enjoyed learning by the self-instructional method and believed that she had taught herself to sew.

The score of the blouse constructed by Participant J was 274. This score was the lowest of the scores of blouses made in the present study; however, it was only one standard deviation below the mean score of blouses made by the high school students who had used the program. Approximately fourteen per cent of the blouses made by the high school students scored lower than J's blouse.

Participant J's plans for future sewing included making a shift because she believed many of the construction procedures she had learned could be used in this new problem. Using the sewing machine, using the pattern, cutting the garment, attaching facings, and making the darts were aspects that could be transferred from making the blouse to making the shift.

Participant J was glad she had been included in the class and believed that she had learned a great deal. She had enjoyed learning to sew and hoped she could continue sewing.

#### Participant M

Participant M was a 26 year old Negro woman who was born in Washington, D.C., and had moved to Greensboro with

her widowed mother, her eight year old daughter, her nephew, and two nieces.

She was presently employed as a maid and had had no other job experience. She was enrolled in Project Uplift which is a training program for nurses' aides. Although Participant M did not complete this course, she stated that skills she learned were useful in her present job since her employer had a new baby. She worked two days each week and was paid \$1.00 per hour. Participant M received no aid from welfare for her daughter. The father of her daughter occasionally visited the child; however, he gave no financial support.

Even though Participant M was promoted to the tenth grade, she had decided during the summer after her freshman year not to go back to school. She explained, "I didn't have clothes like I wanted to wear to school. I just decided to quit and start working to buy what I needed."

Participant M's only experience with sewing had been in a home economics class in the seventh grade in which she made an apron. Even though her mother could sew, she had not attempted to teach Participant M; and at the time of the study her mother's eyesight was too poor for sewing.

Participant M's comments about learning to sew were enthusiastic. "I think it is real nice that they do have this program. I...am interested in sewing and I want to learn... to make the children's clothes." She explained that sewing

would help her in many ways, especially since her daughter was growing so fast. Constructing a garment was considered to be a way of saving money.

The welfare service had given clothing to this family and occasionally these garments had needed repair. Participant M believed that the sewing skills learned in the program could be used to repair and patch the clothing.

Participant M completed the program in fourteen class meetings. She stated during the final interview, "I thought once or twice, I'm not going back over there, but when it was time to come, I was glad to get back."

Since Participant M had no previous experience in garment construction, she stated that everything she learned from the program was new. Some newly-acquired skills mentioned by her were naming the machine parts, threading the machine, cutting-out the pattern, staystitching, and bridge-stitching. She stated, "I had wondered how you could get a sleeve sewed in with it looking like that. The shape was strange. Then I found out that you stitch it on the machine and ease it up so that it will fit around. I really learned a lot."

Participant M stated that at first she was anxious to sew and did not like having to read so much. She explained, "I kept waiting and wondering when I was going to start on the blouse." She added, however, that the subject matter

became more interesting to her as she continued through the program. "After you answer the question then you turn the page and the answer is right there. You can check and be sure what you put down was right." Immediate confirmation of her response was important to Participant M. She was not sure of herself and reinforcement reassured her that she was not straying too far from the main purpose.

Another aspect of programmed instruction that seemed valuable to Participant M was the availability of information that the booklets offered. "With a book you can turn back any time," she explained. "I liked this! If you have a teacher telling you, then you can't turn her back or go back as easy." She also added that she did not think any changes should be made in the program. Her attitude was favorable about all portions except that she did not like to press the garment as often as the program directed. Nevertheless, she added that this did make the blouse look better.

Threading the machine was a problem at first, but it became easy after practice. Even though Participant M tangled the thread when winding the bobbin, she successfully filled the bobbin at the second attempt. She considered marking the fabric difficult. As she expressed it: "The marking was hard. I had never used the tracing paper before, but I like it better than anything else now. I can see right where to stitch."

Participant M indicated that the most difficult part of the construction process was setting-in the sleeve. Stitching on a curved line was confusing to her and she found it difficult to handle the blouse while she stitched the armseye seam.

The panels, however, were very useful. Participant M explained, "The panels were real nice and real handy, too. Like the books, it tells you what to do or helps you understand so you can get the answers."

The explanation of the program given by the administrator at the first class included all that Participant M believed necessary for her to understand how to begin the program. The self-instructional booklets directed Participant M as to what responses were necessary as she proceeded through the program and she considered the booklets to be an invaluable source of available reference.

The score of the blouse constructed by M was 283, a score which was approximately three-fourths of one standard deviation below the mean score of the blouses made by high school students who were program-taught.

Participant M's future sewing plans included the construction of a skirt and a shift. She stated, "I really do want to do some more sewing. I know how to get my right size and I know how much material to get. I think I could sew by myself. I really did enjoy the program and I am sorry now it is over."

In a follow-up visit she mentioned that she had attempted to purchase the pattern for a skirt but her size had not been available. She also asked questions about procedure, guide sheets, and the two skirts which others had constructed in the class. She planned to construct a skirt immediately and to attend a summer sewing class given at the Y.W.C.A. Participant M also hoped to purchase a sewing machine.

#### Participant N

Participant N was a 27 year old Indian woman who was born in a rural area of southeastern North Carolina. Her father had been married three times and he had ten daughters and six sons. Participant N had been married for three years; however, her seven year old son lived with her step-mother.

This participant had been employed at a local laundry for four years. She worked from 7:30 a.m. until 5:00 p.m. earning \$1.21 per hour. Her specific job was to iron sheets. Domestic work was her only previous job experience.

Participant N had completed the seventh grade. When her mother died, the participant was forced to drop out of school because she was needed at home to care for the other children.

Although Participant N did not take home economics in school, since her marriage she had been interested in learning

to sew. No one in her family could sew or had been able to help her. She had purchased a sewing machine and had attempted to construct a skirt, but she had difficulty inserting the zipper. A blouse was started but never completed because of problems with the facings. Participant N's reason for wanting to learn to sew was, "so I can make things better. I can save money by learning to sew." Her plans for future sewing were to construct garments for herself, and possibly for her brothers and sisters. Prior to the study, Participant N had purchased all her clothing.

Participant N asked to be in this class when she learned that her friend, Participant D, was going to attend. Although her reading ability was not quite as high as the rest of the class, she remained very interested, completing the program in thirteen class meetings.

When relating specifically what had been learned, she mentioned straightening material, laying-out the pattern, marking the garment, and using the tracing wheel. Participant N was very favorably impressed with using the tracing wheel. She said, "I had never seen one but I sure do like it and the marks helped me see where to stitch and to stitch right." She wanted to purchase a tracing wheel and carbon paper. Participant N also stated that she had learned about using the information available on the pattern envelope to determine how much fabric was needed and what notions should be acquired for finishing the garment.

When expressing what had been accomplished while constructing the blouse, she emphasized that much had been learned. Participant N believed that learning more about the correct procedure to follow would help her to be more patient and careful when sewing. She learned to attach the facing and set-in the sleeves. She also stated, "I had never heard about understitching. I liked that to keep the facing from showing."

Learning from a book was considered a pleasant way to learn. Not only did programmed instruction successfully teach Participant N but also made her finished product "look neat and like it was bought."

Although answering questions was the part she liked least, she felt the program was very useful. Participant N stated, "It wasn't real hard to learn about the sewing machine, or the pattern, or any of it, because the book told you just what to do."

The panels were cited by this participant as a portion of this program that she believed to be extremely helpful. In addition to the panels, the practice samples were considered helpful. Participant N said, "Those practice things were a whole lot better than doing it right on your blouse. If you made a mess, then you could try again."

Writing answers was the most difficult part for Participant N. She had difficulty with spelling and wrote with

the paper upside down, beginning at the bottom of the page and progressing upward. This fact alone would have made writing difficult; nevertheless, she completed all of the answer booklets, with the exception of the last section. At this point, she looked at the illustrations and completed the garment.

The score of the blouse constructed by Participant N was 282. A score which was approximately three-fourths of one standard deviation distance below the mean of high school students who had used the program. This blouse compared favorably with blouses made by students who were program-taught.

Participant N was so enthusiastic about sewing that she completed a skirt as well as a blouse in class. She had purchased extra fabric to make the skirt at the same time she purchased the blouse fabric. She expressed interest in learning to put in a zipper and this was accomplished while constructing the skirt. Participant N's enthusiasm for sewing was reported by Participant D who noticed Participant N one Sunday at church asking some friends who were her size for the loan of their patterns.

After checking the blouse, the writer delivered it to the participant's home. Approximately two hours were spent helping Participant N to use the buttonhole attachment, explaining and identifying other attachments, and answering

miscellaneous questions about clothing construction techniques.

Participant R

Participant R was a nineteen year old Indian girl who completed about half of the program. She was born in a rural area of southeastern North Carolina and had lived there until coming to Greensboro one year ago. Her only job experience prior to her present employment by a laundry was field work on a farm. Her specific job at the laundry was to fold linens.

Participant R became disinterested in school and decided to drop out during the tenth grade. She took home economics in the ninth grade. She commented, "The first half of the year we sewed and the last half we cooked. I made a shift."

Participant R said that she would like to learn more about sewing so that all of her clothing would not have to be purchased. Sewing was considered a way of saving money, as well as an enjoyable hobby. A sewing machine was available for her use.

When Participant D learned that Participant R was enrolled in the class, she stated, "If we are expected to finish this program, you had better not count on her--- she never finishes anything!" No reason was given for this comment except that Participant R did not often leave the apartment unless she was going to work.

When questioned about attitude toward the class, Participant R said, "I liked all of what I did. I was just tired

when I got home from work. I was too tired to come to the classes so often." The last step completed by this participant was pinning the pattern to the fabric. Panels were considered an aid to learning. She believed they helped more than any of the other supplementary materials. The administrator was not considered to be especially helpful. Participant R did not object to responding to questions in the program unless she considered them to be difficult.

Participant R mentioned that she learned about threading and operating the sewing machine, selecting and using a pattern, and laying the pattern on the fabric. Even though she did not complete the program, she believed the parts she had completed were helpful. When asked about her future use for sewing, she stated, "I do want to go on and make a blouse like I started. If Participant E (R's sister) will help me, I know that I can make the blouse."

#### Interview with Administrator

Information from the administrator of this program was obtained by an interview conducted after the classes were concluded. The administrator stated that this study was her first experience with a self-instructional program. She believed that Sewing Step-by-Step was more practical for beginning sewing students than a teacher-taught classroom situation. The program was also considered by the administrator to be applicable for use with adults. She said that if they could

read, even if they had not done any sewing, they could learn to sew.

The administrator was given a program to read before the classes began. Through reading the program, she became acquainted with the procedures taught. When she was needed to assist the participants, she believed that she was adequately prepared to answer their questions. She stated, "Even if an administrator couldn't sew, she could take these booklets and study to keep ahead of the students."

The administrator read the material included in the administrator's manual prior to the first class meetings. The information furnished was considered very helpful and made her job much easier. She believed that it was necessary for the administrator to have some knowledge of the program before beginning the classes. Making the panels and supplementary aids was considered to be one way in which administrators would become more familiar with the content of the program.

She followed the directions given to her entitled "Method of Procedure to be Used at the First Class Meeting" (Appendix B, p. 91). At the conclusion of her orientation session with the participants they were given an opportunity to ask questions. She expressed satisfaction with the manual which had been given her, stating, "I didn't need any further background information; it was just enough information for me."

Also, in her opinion, the information given to the participants at the first class meeting was sufficient. She stated that the participants were told what to expect, as well as how to begin proceeding through the program. After these preliminary instructions the administrator believed that the program guided the participants through the booklets with precise instructions which were very complete.

The Record of Progress (Appendix A, p. 85) was believed to be helpful. The administrator said, "It helped me to be aware of what each participant was doing. When I looked at the Record of Progress, then I would know what they had done and what they lacked." The record which she kept had checks--indicating a correct response--for all participants in all hand frames except those in the section on sleeves. She explained, "I think they did fine with the exception of the sleeves, and on that they all had some gathers. Even though I guess you couldn't expect them to do it since it was their first time, I still didn't feel as if I could give them a check."

The administrator specifically liked the illustrations in the booklets, and the panel examples. She believed that the students liked having the answers on the back of each frame so that they could check themselves. The administrator stated that finding the answer on the other side of the frame was almost like a game. A correct answer was rewarding;

however, if the participant was wrong, the administrator said, "No one was embarrassed publicly for saying they were right or wrong. It was all in their own little booklets."

The mimeographed answer sheets were divided into five sections related to the division of the programmed booklets. These sections are "The Sewing Machine"; "The Pattern, Part I and II"; and "The Blouse, Part III and IV". The administrator believed that they should have been put into one booklet, since some of the participants seemed confused about the sequence.

The administrator stated that from the beginning the participants seemed to be unusually interested in the program. The fact that the participants were not in competition to do better than the others seemed to focus all their attention on constructing the blouse.

Their interest was maintained throughout the program. During several evenings fruit juice and cookies were available. These had been prepared to give the participants an opportunity to relax for a short while. Even though the refreshments were available during the entire class, the participants did not pause until the class was over. Then they were served by the administrator. The class time had been set from 7:30 p.m. until 9:30 p.m. with two meetings per week. The administrator reported that before many class sessions had passed, most of the participants were arriving at 7:00 p.m. and on several occasions she had to suggest that it was time for the class to end.

The administrator requested additional assistance in use of the tracing wheel and carbon paper. These were included in the exhibits for use in the classroom; however, they had not been a part of the original materials supplied to the administrator prior to the class meetings. She also requested additional information about the use of the easing sample and the understitching sample.

All participants worked well together and shared the responsibilities of preparing the room for class. When the first participant arrived, she began to remove all the needed supplies from the closet in readiness for the others. All shared in putting their materials away and they seemed to enjoy keeping their equipment in place. As the need arose for individual storage boxes, one participant brought boxes for all.

Even after the planned learning experience had ended, the interest in sewing did not cease. Participants M and J planned to attend sewing classes sponsored by the Y.W.C.A. Participants E and N used extra fabric to make matching skirts. These skirts were begun in class and completed at home. Participant M wanted to purchase a machine and Participant N had learned to use her sewing machine correctly.

## CHAPTER V

### RESUME OF CASES

The five case studies reported in Chapter IV are summarized in this chapter. No information is reported about the participant who dropped out after having completed only half of the program. No attempt was made to draw inferences because of the limited number of cases included in the study. This summarization is comprised of personal information about the participants and common successes and difficulties they experienced with the self-instructional program, as well as the attitudes of the participants toward the self-instructional program and the results of their learning experiences.

Ages of the participants ranged from the early twenties to the late thirties with one participant being in her early twenties, three in their middle twenties, and one in her late thirties. The blouse score of the participant in her early twenties was 288; the mean score of the participants in their middle twenties was 280; and the score of the participant in her late thirties was 294. In the study, age of the participants seemed to have no relationship to quality of the blouse as measured by the rating scale.

The number of years of school completed by the

participants ranged from seven to twelve. Two graduated from high school and the other three had completed seven, nine, and ten years of school respectively. The highest blouse score was achieved by the participant who had completed the tenth grade, whereas the lowest score was achieved by one of the two high school graduates. There seemed to be no relationship between the workmanship of the blouses and the amount of formal education completed by the participants.

Three participants had received sewing instruction in a high school home economics class. Two had received no previous instruction in sewing. Each of the three participants who had taken home economics in school had been enrolled for only one year. The mean score of the participants who completed one year of home economics was 288. This was slightly higher than the mean of the participants having no home economics experience, their mean score being 278.

Three participants were self-supporting and two were heavily dependent upon parents for financial support. The two living with their parents had incomes of less than sixty dollars per month. Monthly incomes of two participants were slightly less than \$200 per month. Another participant in the study earned almost \$230 per month. The amounts reported for the three self-supporting participants were gross amounts of wages earned.

Racial composition of the class was mixed. Three participants were Indians and two were Negroes.

The scores of the participants which indicated quality of blouse construction, ranged from 274 to 294, the mean being 284. In contrast, the mean score of blouses constructed by 57 high school students participating in Research Project No. 5-1042 who were program-taught was 298, and the range of scores was from 200 to 334.

Scores of the blouses were transformed to standard scores so that they might be considered in relation to scores of the high school home economics students who made blouses using this same self-instructional program. With one exception, the participants' scores all fell within the first standard deviation below the mean score achieved by the high school students. This exception was only slightly outside of the first standard deviation.

The amount of time the participants were told would be required to complete the series of classes was approximately six weeks with two meetings per week. This length of time was estimated by the number of hours the high school students in Project No. 5-1042 spent proceeding through the program. The time spent in class by the participants in the study included all the time they were in class regardless of how time was used. The time used by the participants varied slightly, being approximately 28 hours. Different numbers of classes were attended and the length of working time also varied. One participant completed the program and constructed

the blouse in twelve classes, two finished in thirteen classes, and two finished in fourteen classes.

Participants reported that they had progressed through the program in the correct sequence, responding to nearly all the frames. Exceptions reported by the administrator were (1) one participant referred to the guide sheet rather than the program for making the darts, (2) one participant did not write some responses because of the extra time she believed this to require, and (3) one participant did not write responses for the final booklet and used only the illustrations to complete the final step in construction. The last two examples were considered by the administrator to be evidences that two participants had a tendency to want to catch up with their classmates, even though one characteristic of programmed instruction is that each student progresses at her own rate.

All participants considered sewing to be one way to reduce expenditures for clothing. Each planned to sew for herself and for the children, if there were children in the home.

This self-instructional program was believed to be a valuable way to learn and all the participants agreed that time spent in class was most worthwhile. Availability of information in the booklets for reference plus clarity of the illustrations were considered by the participants to be aspects of this program that were very helpful. The participants also liked the immediate confirmation of answers and the combination

of reading and sewing as they progressed through the program.

The five participants agreed that writing responses to the questions was the most unpleasant portion of the program. Nevertheless, they believed this helped them to learn and retain the information. Related to their objection to writing responses was the fact that all were anxious to begin construction of the blouse. Participants considered the time spent on preparation for the construction of the blouse to be long even though they said that the information and practice preceding construction of the garment were necessary.

Criticisms of the participants of this method of learning were limited to two suggestions for improvement of the program. Two participants thought some of the responses were repetitious and one participant believed that she had been instructed to press the garment more than was necessary.

Difficulties were encountered by all participants when setting-in the sleeves. Since this construction process is one which takes a great deal of practice, their difficulty with this process is easily understood. Other difficulties mentioned were threading the sewing machine, marking the pattern pieces, and keeping the lines of stitching straight.

Participants cited specific processes they learned by using the self-instructional program. These processes and the number of times they were mentioned by the five participants are listed as follows:

Setting-in the sleeves . . . . .	5
Threading the machine . . . . .	4
Selecting a pattern . . . . .	4
Use of the machine . . . . .	3
Attaching a facing . . . . .	3
Use of pattern envelope . . . . .	3
Winding and placing of the bobbin . . . . .	3
Knowing the parts of the machine . . . . .	2
Understitching . . . . .	2
Staystitching . . . . .	2
Marking the garment . . . . .	2
Straightening the fabric . . . . .	1
Clipping . . . . .	1

An administrator was believed to be helpful to the participants as they proceeded through this program. Reasons reported were that she (1) helped to explain what was to be expected from the program, (2) checked participant's work, (3) gave additional assistance, and (4) helped to identify problems. All reactions to having an administrator were favorable; however, the participant who did not complete the program stated that she did not consider an administrator to be especially helpful.

The participant believed the panels contributed greatly to their learning by clarifying illustrations and demonstrating actual samples of the techniques. The practice samples were likewise considered beneficial because they allowed the participants to drill on a sample before working with their garment.

Two weeks after the conclusion of the classes, one participant had completed a skirt, whereas another participant had completed a skirt, as well as had begun construction of a

dress. Two additional participants had made plans to attend an additional sewing class at the Y.W.C.A., one of whom had purchased fabric for a garment and was planning to purchase a sewing machine.

All participants believed that Sewing Step-by-Step was an excellent way to learn to sew. They also believed that the information and the skills acquired through the program would be valuable to them for future sewing projects.

## CHAPTER VI

### SUMMARY AND RECOMMENDATIONS

#### Summary

The purposes of this study were (1) to examine the problems and successes experienced by five disadvantaged adult women as they used a self-instructional program to construct a blouse, and (2) to study the problems a non-home economics person would encounter in administering the program. The self-instructional program Sewing Step-by-Step used in this study was developed by researchers at The University of North Carolina at Greensboro as a part of Project No. 5-1042, with the Department of Health, Education, and Welfare, Office of Education. The program was developed for the first-year home economics students and was field tested with this population in a classroom situation under the supervision of a home economics teacher. Use of the program with adults in a group situation was considered important to service organizations, such as the Y.W.C.A. and community or church groups, in the belief that they could use it to provide learning opportunities for interested women.

The administrator, who supervised the program in this study, was selected because of her interest in the disadvantaged, her contact with these families, and her enthusiasm about programmed instruction. Preparation of the materials to be given to the administrator and consideration of problems she encountered during the supervision of the problem were an important part of this study. Five adults completed the program and constructed a blouse and the sixth completed only half of the program. Requirements for the participants in this study were that each subject be (1) disadvantaged, (2) willing to attend class regularly, (3) a beginner in sewing, having done no independent sewing, and (4) able to read aloud specified frames of the program. The classes were held at the Pearson Street Branch of the Greensboro Y.W.C.A. two evenings each week.

Information reported in the case studies was obtained by tape recording two interviews. The first of these interviews was scheduled prior to the first class meeting. Information secured at this time included personal and family background, employment experience, educational record, sewing experience, and comments made about how the participants might use the sewing skills she acquired. A final interview, which was also taped, included information about attitudes toward the self-instructional program, specific areas of difficulty, knowledge acquired, and future plans for sewing. The blouses

were scored using a rating scale which had previously been developed for use with Sewing Step-by-Step as a part of Cooperative Research Project 5-1042.

Previous enrollment in a home economics class seemed to be related to blouse scores because the three highest scores were obtained by the participants who had taken home economics in high school. It seemed that in this study previous sewing instruction aided the participants in constructing a blouse of better quality.

The scores on the quality of blouses constructed by the participants ranged from 274 to 294, the mean being 284. The mean score of the blouses made by students participating in Research Project No. 5-1042 who were program-taught was 298, and the range of scores was from 200 to 334. The scores of the participants, with the exception of one, were within one standard deviation below the mean score of the students who used the program in a classroom. This exception was only one standard deviation below the mean score of the students.

The average amount of time spent on this program by the participants was 28.35 hours. The time was computed by multiplying the number of classes attended by the length of the class meetings. This totaled the entire time the participants spent in the classroom, regardless of how the time was used.

Individual reaction to the self-instructional program varied only in degree of approval; all participants had positive attitudes toward this method of teaching. The participants believed they had learned to successfully construct a blouse and would now be able to use the knowledge acquired to construct other garments. The administrator also believed this program to be a practical method for teaching adults to sew.

#### Recommendations

Further study would be necessary before inferences could be made concerning the use of Sewing Step-by-Step with disadvantaged adults. However, on the basis of this study, recommendations can be made that might prove helpful when the program is used under circumstances similar to those in the study.

The researcher believes that when the program is to be administered to disadvantaged adults in a Y.W.C.A., a church, or community group, it is important that the characteristics of programmed instruction be discussed. This recommendation is made because participants stated (1) that writing responses to the self-instructional program was at times unpleasant and difficult and (2) that some responses seemed to be repetitious. Awareness of the effect of writing responses and of proceeding by small steps in learning might encourage adult learners to accept these aspects of programmed instruction more willingly.

Participants expressed their desire to begin construction of the blouse at an earlier stage than they were guided to do in the program. This indicates that participants did not fully understand the purpose of this particular program. The blouse made was to be only a vehicle for learning general construction techniques which would be applicable in the construction of a number of garments. The purpose was not to quickly complete the garment constructed while proceeding through the program. Better understanding of the above purpose of the program may be expected to decrease dissatisfaction with slowness of construction of the garment.

Recommendations can also be made concerning the information needed by the administrator. Since the administrator in this study received supplementary information during the classes about the carbon paper, the tracing wheel, the under-stitching sample, and the easing sample; further explanation of how these items are used in the program should be included in the materials given to the administrator prior to the classes. Explanations should also be made of the exhibits. It is recommended that the administrator of the program not only read through the programmed materials but respond to the frames and construct a blouse before the first meeting of the class or that she work through the program, keeping slightly ahead of the class. The administrator would then be aware of specific areas where additional help might be necessary.

The assistance of a home economist is necessary for the preparation of the panels accompanying the self-instructional program. If the administrator would help a home economist with the preparation of the panels, this would further aid her in understanding the processes involved in Sewing Step-by-Step.

#### Conclusion

The nature of this study makes it inadvisable to make inferences about the use of Sewing Step-by-Step with disadvantaged adults under the direction of a non-home economist administrator. However, this researcher believes that this self-instructional program can be used successfully under circumstances similar to those in this study.

It is the belief of the researcher that because of the completed blouses, the blouse scores, the attitudes of the participants, as well as the attitude of the administrator toward this self-instructional program, Sewing-Step-by-Step can be used with disadvantaged adults in a group situation with an administrator who is not necessarily a home economist. The administrator would need the help of a home economist in the preparation of panels to accompany the program. The adult groups might be organized as part of the work of a local community center or a church. It would be necessary that participants meet the qualification of the target population apart from age. These qualifications are ability to

read, interest in learning to sew, and little previous independent sewing experience.

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SELF-INSTRUCTIONAL PROGRAM  
USED IN THIS STUDY

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SECTION OF INSTRUCTIONS

Event  
1 2 3 4 5 6

Section, Part I

- 126 Does the thread go between the guide?
- 127 Is the thread in the thread guide?
- 128 Does the thread go between the guide?

APPENDIX A

- 129 Is the thread in the thread guide?
- 130 Is the thread in the thread guide?
- 131 Is the thread in the thread guide?
- 132 Is the thread in the thread guide?
- 133 Is the thread in the thread guide?
- 134 Is the thread in the thread guide?
- 135 Is the thread in the thread guide?
- 136 Is the thread in the thread guide?

Section, Part II

- 137 Is the thread in the thread guide?
- 138 Is the thread in the thread guide?

RECORD OF PROGRESS

Cases

Frames

E D J M N R

--	--	--	--	--	--	--	--	--	--

Sewing Machine, Book I

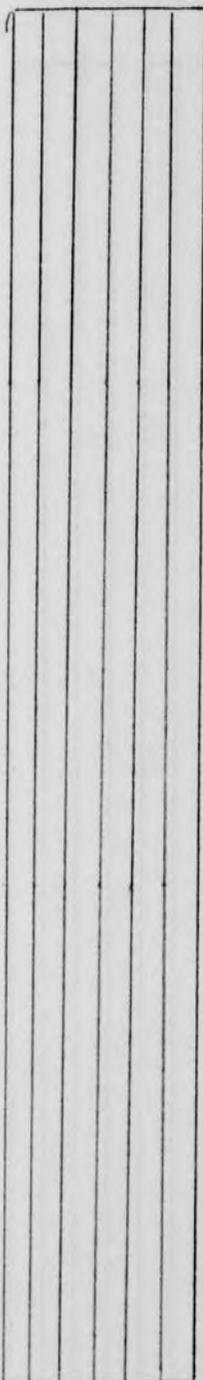
- 26 Does the thread go between the discs?  
Is the thread in the thread guide?  
Does the thread go under the spring?

Sewing Machine, Book II

- 109 Is the upper portion of the machine threaded correctly?  
Is the bobbin placed correctly?  
Is the thread pulled up through the needle hole?
- 167 Does the tension seem correct?
- 185 Is the needle inserted correctly?
- 206 Are 4 or 5 stitches backstitched at the beginning?  
Are 4 or 5 stitches backstitched at the end?
- 216 Is the zipperfoot screwed tightly?

Pattern, Part I

- 13 Are measurements correct?
- 31 Is pattern size selected correct for participants' measurements?

- 
- 17 Is amount of material correct for the pattern size?
- 21 Was response correct (material cut or torn)?
- 24 Has edge of sample of fabric been straightened by pulling a thread?
- 26 If necessary, was the fabric straightened by pulling a thread?
- 34 Was response correct (fabric off-grain or on-grain)?
- 39 Were short corners selected?
- 41 Was response correct (fabric does or does not need to be straightened)?

Pattern, Part II

- 6 Are needed pieces selected?
- 16 Is the correct cutting layout circled?
- 33 Is the pin in the right place?
- Does the pattern fit on the material correctly?
- 35 Are pattern pieces placed as shown on the layout sheet?
- 47 Are the pins placed as shown on the answer frame?
- 59 Is the facing pinned as indicated on the layout diagram?
- Is the fold line of the back piece on the fold of the fabric?
- Is the sleeve on-grain?
- Is the facing on the fold?

Pattern, Part III

31 Is the carbon paper inserted correctly?

35 Are the following positions marked?

Front

neckline curve

buttonholes

armhole curve

dot on armhole curve

center front line (1" at top and bottom)

facing fold line (1" at top and bottom)

darts

Back

neckline curve

shoulder darts

dot on armhole curve

armhole curve

Sleeve

seamline between notches

dots on sleeve

fold line for hem on sleeve

Construction, Part I

23 Is the blouse stay-stitched (as shown on the answer frame)?

43 Are the following pieces bridge-stitched in the correct place (as shown on the answer frame)?



sleeve hem edge

blouse back hem edge

blouse front hem edge

front facing edge

back facing edge

### Construction, Part II

11 Are the pins placed on the stitching line?

Do the stitching lines match?

Do the pins point to the left?

19 Does the dart look like the one in the panel?

22 Is this dart stitched on the marked line?

Does it taper to nothing at the narrow edge?

Is it secured by tying a knot?

37 Is the dart stitched on the marked line?

Is the thread securely tied?

39 Is it pressed in the right direction?

33 Does the shoulder look like the picture on the answer frame?

Is the ease evenly distributed?

Are the corners pinned correctly?

40 Is the other shoulder seam stitched so that seamlines are matched at neckline?

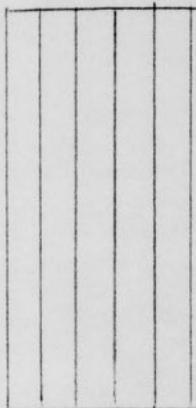
### Construction, Part III



- 12 Do facing and blouse look like illustration (with right sides together)?
- 8 Is facing pinned to neck edge?  
Does it fit smoothly?
- 10 Is blouse stitched on marked seamline?  
Is knot tied at end of stitching line?
- 51 Has sample been understitched correctly?
- 55 Has neck edge of blouse been understitched correctly?
- 62 Is corner trimmed?
- 66 Is facing pinned to shoulder seam so it fits smoothly?

#### Construction, Part IV

- 22 Does easing sample fit D?
- 28 Is sleeve pinbasted?  
Is ease evenly distributed in the half of the sleeve pinned?  
Are notches matched?
- 30 Is the ease distributed evenly?
- 34 Is sleeve stitched without pleats and puckers?  
Is stitching continued past the first stitching about  $\frac{1}{2}$  inch?  
Are armhole seams clipped between the notches?
- 41 Is second sleeve stitched correctly?



- 7 Is edge of hem cleanfinished?
- 9 Is sleeve hem pinned so it is even in width?
- 12 Is sleeve hem pinned so it fits smoothly?
- 14 Is sleeve hem stitched close to the edge of the hem?
- 16 Is other hem stitched correctly?

APPENDIX B

## METHOD OF PROCEDURE

### TO BE USED AT THE FIRST CLASS

#### I. Read this introduction to the participants.

Perhaps you have read or heard someone mention teaching machines or self-instructional programs which are wonderful new ways of helping people learn. Programmed instruction is a new method of teaching which gives information in small pieces. This is a good way to learn. You are all going to

#### APPENDIX B

be part of an adventure in helping to see how well this self-instructional program works with adults. You can see this when you look at one of your books. Hold up booklet and show small amount of printed information on each page.

You will all take part in teaching yourselves. You do this teaching as you read and when you write down your answers on the answer sheets. This program lets you check your answer immediately by looking at the correct answer.

You can work at your own rate of speed. If you want to work thirty minutes extra, you can because you are teaching yourself and do not have to stay at the same place as the other ladies. Because people work at different rates of speed, you will not all be doing the same things at the same time.

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This program is a teaching device and not a test. You are expected to make errors. Everyone will make some errors. This is not "bad." I don't ask you to write down answers to check up on you; the answers are written down to help you learn. They tell you when you are right and they also can tell you when you have made an error; therefore, you can correct the error before going on. As I said, it is not bad to make an error; however, it is important when you make an error to go back and learn the right answer.

This program can help you teach yourself to sew. When you have finished these books, you will have made a blouse. You will also understand how to sew and I hope you will be able to use this skill in the making of many other garments.

II. Ask the participants to read "Directions to the Students."  
(The Sewing Machine, Book I pages 1-14).

III. Read this information to the participants.

It is important to write down an answer before turning the page in order to really learn the answers. When you have to think and decide on an answer and then actually write it down before you turn the page, you learn and remember.

When you check your answer to the answer frame, then you know if you are right at that same instant. If you have put the wrong answer, then you also know immediately and can go back to learn the correct answer. This program is like

having a teacher right with you every minute to tell you whether you are right or wrong.

When you come to a part of the program that you do not understand, read it over again. Sometimes rereading it will help you get it straight all by yourself, and you won't need to call the administrator.

IV. Explain the different types of frames included in the program.

- A. written responses (frame 3 is an example)
- B. written responses related to illustrations appearing on the frame (frame 5)
- C. performance frame (frame 23)
- D. written responses dependent upon a panel (frame 31)

V. Review the symbols appearing on the frames.

# \_\_\_\_\_ a number

\_\_\_\_\_ one word

\* \_\_\_\_\_ more than one word

\*\* \_\_\_\_\_ in your own words

hand  call the teacher to check answer or work

sewing machine  (construction program) go to the sewing machine.

iron  (construction program) go to the pressing center.

VI. Tell participants where panels and exhibits will be kept and how to replace them in correct order after using them.

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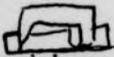
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VI. Tell participants where panels and exhibits will be kept and how to replace them in correct order after using them.

VII. Have participants work through Part I, Section I (pages 1-31) and Section 2 (pages 1-17) of The Pattern to let them find out how much fabric they will need and also what size pattern they will need. After they complete this part, they will go back to Book I of the Sewing Machine and begin to progress through the booklets in regular sequence.



Recently written theses completed at the University of North Carolina at Greensboro in which the review of literature dealt with phases of programmed instruction:

Huffman, Sally Elizabeth. Home Economics Teachers and Programmed Instruction--An Exploratory Inquiry.

Moebes, Betty. Subject Matter Analysis for a Self-Instructional Program for the Construction of a Simple Blouse.

Moore, Catherine Porter. Development of a Self-Instructional Program on the Sewing Machine.

Murphy, Mae Ellen, Evaluation of By-Passing as a Technique for Adjusting a Self-Instructional Clothing Program to Initial Individual Differences.

Shoffner, Sarah Moore. Revision and Field Test of a Self-Instructional Program on the Sewing Machine.