CHAPTER II

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**** **** REVIEW OF RELATED RESEARCHES

2.1 Introduction

The present investigation is undertaken to study the suitability of the linear form of programmed learning material in home science for adolescent girls. Though programmed learning movement in India dated back to 1960, no systematic study on development of any of the three forms of PLM in home science and their suitability for selected groups of individuals has so far been undertaken in India.

2.2 Trends and Issues Related to Programmed Learning in India

The review of related researches conducted in the area of programmed learning in general revealed certain major trends. According to Kapadia and Kulkarni (1974) researches in PLM conducted in India can be classified in five main categories, namely :

- Programmed Learning vis-a-vis traditional approach to training ;
- Different forms of PLM ;

- Different uses of PLM ;
- Programmed Learning for different subjects ;
- Programmed Learning and Instructional Media; and
- Programmed Learning and individual differences.

Shah (1964), Sharma (1966), Sharma (1966), Desai (1966), Shah (1969) and SIE (1970) conducted researches to find out the comparative effectiveness of PLM vis-a-vis traditional methods of teaching. All these studies revealed that the group taught through the PLM achieved higher on the post test as compared to the group which was taught by the teachers in the traditional way.

The effectiveness of programmed learning approach was studied in terms of immediate scores on the post test as well as in terms of retention scores too. Sharma (1966) Kulkarni (1969) and SIE (1970) found that retention scores of the experimental group were better than those of the control group.

Shah (1964) introduced some variations in her study. She had three treatment groups in her study. The first experimental group was given the PLM and was asked to study on its own. The second experimental group was helped by the class teacher to learn by PLM and the control group was taught by the traditional method of teaching. The findings of this study that the group taught through PLM along with the teachers help failed to do better was very interesting.

Shah (1964) and Shah (1966) found that the experimental group achieved more in less time leading to conclude that programmed learning approach is effective not only in terms of immediate and delayed achievement but also in terms of time taken to learn a particular topic.

Dewan (1966) conducted a study in which principles of programmed learning were applied to televised instruction. It was the only Indian study of its kind. In this study the experimental group was given televised instruction in programmed way. The experimental group was found to be superior to the control group who received television lessons in the usual way.

Shah (1964), Desai (1966) Nagar (1971) and Kapadia (1972) studied pupils intelligence in relation to achievement on PLM. Shah, Desai and Nagar reported that difference in intelligence did not have an impact on achievement in post test after going through PLM. However Kapadia's study indicated that high intellectual ability did help the pupils to achieve better on PLM.

Kapadia's study ascertained that personality variables like anxiety, self-sufficiency and introversion-extroversion were not significantly related to achievement.

All these studies indicate that the use of PLM in subjects other than home science was found to be suitable for the students at various levels of education as a self instructional device and helped students with different personality variables to achieve better or at par with other students.

2.3 Programmed Learning in Home Economics

In the present investigation an attempt is made to establish the suitability of PLM in home science as a self study method, an aid and over the conventional method of study independently as well as when combined with certain selected personality variables.

Analysis of the literature available on the researches in Home Economics related to programmed learning revealed following trends. All of these studies were conducted in U.S.A. For ease of reference these are classified as -

- Researches on development and validation of PLM
- Researches on programmed learning materials vis-a-vis the conventional methods of teaching at school level
- Researches on programmed learning vis-a-vis conventional methods of teaching at college level, and
- Researches on programmed learning materials for different types of students.

Most of these studies included linear form of PLM. They were mostly used for auto-instruction. In one study PLM was used also as an aid to conventional teaching.

Lewis (1968) conducted a study on the development of objectives and generalizations for use in self-instructional programme. Moebes (1966) and Parrish (1968) carried out investigations concerning organization and development of the content for programmed instructional materials. Murphy (1968) undertook an investigation on development and evaluation of programmed instruction modules. These studies lead to development and validation of the programmed learning material.

Researches conducted at the two levels of education viz. school and college mainly compared the use of PLM with conventional methods of teaching and learning. The conventional methods were specified only in two studies as reference of textbook, laboratory and demonstration. These studies also included other personality variables such as intelligence, pretest and posttest scores as well as reading comprehension. Only one study aimed at studying the suitability of PLM for foreign students namely the Thai students.

Banowich (1968); Everette (1968); Johnson, Clowson and Shoffner (1960); Murphy (1967) and Richards (1967) conducted the studies at school level whereas Berham and Reich (1971) Kanyansthiti (1968) and Newman (1967) carried out their investigation at the college level.

In the fourth category of the researches on programmed learning studies concerning use of PLM in Home Economics for teacher trainees, as well as normal and disadvantaged adults are reported.

Schenk (1967) studied the use of self-instructional programme for normal adult women whereas White (1967) studied its effectiveness for disadvantaged adults. Smith (1967) investigated the effectiveness of PLM to prepare Home Economics teachers to teach pupils to apply generalizations.

Thus, the very first study itself conducted by Johnson Clowsons and Shoffner could establish the superiority of PLM over the conventional method like laboratory demonstration even for achieving a high level objective like developing understanding for transfer of skill. It thereby established the suitability of PLM as a teaching device in the field of Home Economics which is more an applied field of education.

After this pioneering study conducted under the federal grants, several studies on establishing suitability of PLM for promoting Home Economics Education at school as well as college level were conducted. Most of the studies on suitability of PLM for promoting Home Economics Education reported here are conducted between 1968 and 1971. This is not only because they are recent ones but also because reference materials regarding these studies only were available at the time of the present investigation. The literature was mostly available in form of abstract reports.

2.4 Researches on Development and Validation of Programme

These studies mainly aimed at product improvement. They include selection of objectives, generalization and content organization as well as step by step revision of PLM. These studies have helped mainly in development, evaluation and revision of PLM based on opinions of experts, responses of students to the programme and to the criterion tests.

Besides this, they have also helped in drawing inferences regarding grade placement of the objectives and generalizations in the subject matter area, analysis of procedure for developing a component skill as well as response of students who differed in terms of their motivational level, speed of learning and time taken. Some of them also dealt with the responses of students on the criterion test.

2.4.1 Lewis (1968) conducted a study to develop the objectives and generalizations for use in self-instructional programme in selection and use of a commercial blouse pattern. The study aimed at developing objectives and generalizations for self-instructional programmes on selection and use of commercial blouse pattern in home economics for industry students. It further aimed at determining whether the procedures selected for use by vocational Home Economics teachers were in agreement with the procedures selected for use in the self-instructional programme. The investigator conducted a survey of vocational home economics teachers in North Carolina to ascertain their opinions concerning grade placement of stated generalizations.

An opinionnaire was developed and mailed to a random sample of 150 vocational home economics teachers in North Carolina during 1964-65 school year. In seven of the nine groups, procedures for selecting and using a pattern, teachers were in agreement with procedures used in self-instructional programme in relation to pattern selection. The majority of the teachers had their students transfer more pattern marking to the fabrics than was done when the self - instructional programme was used. Some of the objectives fomulated for study needed some changes for clarity, competence and agreement with the generalizations.

2.4.2 Moebes (1966) conducted a study on organization of content for self instructional programme for the construction of a blouse. The purpose of the study was to organize the subject matter for self-instructional programme, for construction of a simple blouse. The organization of the content of the programme included the analysis of construction procedures into component skills which must be mastered by students in order to construct a blouse, the selection procedures to be submitted to the writers of a self-instructional programme and the grouping of the procedures into learning units suitable for programming.

The procedures for attaining the objectives of this study included an analysis of construction procedures recommended in selected published material, the construction of three experimental blouses, interview with six inservice home economics teachers and consultations with an accepted authority in the field of clothing construction.

The organized subject matter was presented to the writers of self-instructional programme in the form of series of learning units representing the major tasks necessary for the construction of the blouses.

The learning units for the construction of the blouses submitted to the programmers were in the following order : (1) stay stitching (2) pressing (3) darts (4) seams (5) facings

(6) attaching facings (7) sleeves and (8) hems.

2.4.3 Murphy (1968) conducted a study on development and evaluation of programmed instruction modules in food for college level. The purpose of the study was to develop programmed instruction modules in food at college level from which student could learn effectively and efficiently without direct instructor participation. Students' attitude towards the use of programmed instruction and relationship between (1) ability to learn and learning through the modules, (2) between ability to learn and attitude toward programmed instruction, (3) between ability to learn and retention when programmed instruction is one means of learning, (4) between attitude toward programmed instruction and learning, and (5) between attitude and retention were investigated.

A trial draft of each module was given to one student and revised on the basis of the frame and post test errors. This process was repeated with each of the two classes. It was demonstrated that it is feasible for the teacher to develop programme modules. Low error rates and high gains in scores indicated that students learnt well from them. Suggestions for the neophyter teacher - programmer, benefits accruing to him and suggestions for use of programme modules were given. Better students learned more than poor students through the programmes, and those with more ability retained more at the end of the semester, but there were no significant relationships between any other pair of variables. Student attitudes were quite favourable toward programmed instruction.

2.4.4 Parrish (1968) carried out an investigation on development of content for programmed instructional material for the food service area of vocational home economist's job training.

The purpose of the study was to develop a series of programmed self instructional materials. These materials were prepared for the area of food service in vocational home economics job training. The units which were programmed included: sanitation, safety, personal hygiene, general nutrition, cookery terms, basic measurement, and menu terms. Thirteen food service teacher teacher-coordinators, a few students and members of an in-service workshop group reacted to the material. All of the participants felt this would be a useful learning tool. They favoured the use of similar type material in their classes. They felt that testing of material in a regular classroom situation is needed and programmed instructional materials need to be developed in other areas of home economics and for different ability levels.

2.5 Researches on Programmed Learning Materials Vis-a-Vis the Conventional Methods of Teaching at School Level

Studies under this category were mainly concerned with establishing the suitability of programmed learning material over conventional methods. They were conducted with various purposes, for different groups of students, for different teaching situations and in relation to various personality variables.

2.5.1 Banowich (1968) conducted a study on development and evaluation of a programmed instruction unit on leavening agents for use of a seventh grade home economics course.

The objectives of the study were to develop a programmed instruction unit for seventh grade home economics students which would present the purposes of leavening agents in quick breads and to evaluate the effectiveness of programmed unit in the classroom.

An experimental and control class (matched according to IQ) were used to evaluate the effectiveness of the programmed instruction unit. Both the classes were also divided into high central and low IQ groups. The control class studied from the regular textbook whereas the experimental group used the programmed learning material for self study.

A pre-test, post-test and retention test were given to each student to measure the differences in the gain of knowledge between the experimental and control group and also to establish which IQ group was most successfully improved in their retention of the subject matter presented as a result of using programmed instructional unit.

After pre-testing it was found that all the experimental groups had a higher mean gain than the control group. The experimental high IQ, group showed the greatest gain over its counter part in the control group, however the experimental low IQ group showed the least amount of gain.

2.5.2 Everette (1) (1968) carried out an exploratory study of the use of programmed instructions for teaching ninth grade nutrition. A unit of programmed instruction for teaching ninth grade nutrition was developed. It was evaluated by home making teachers, students, teacher educators and nutritionists. It was then revised on the basis of their suggestions.

To test the programme it was given to two groups of ninth grade students. Post-test scores were compared for the groups using the programmed instruction and two groups taught by conventional methods. The groups using programmed instruction scored higher at .05 level of significance.

Previous learning as measured by pretests, IQs, and reading comprehension scores were analyzed. No statistical interaction was found between these variable factors and post-test results. Thus, it was concluded that the higher scores for the experimental groups were due to the programmed instruction developed for the study.

2.5.3 Johnson, Clowson and Shoffner (1968) conducted a field experiment using programmed instruction to teach a skill for transfer. The study compared the students taught by the programme with the students taught by their teachers with respect to five criterion variables. The programme used in this study represented an effort to teach a high level of learning than for simple recall.

The purpose of the study was to compare the performance of students taught by the self-instructional programme in which they were guided to perform laboratory task and to achieve cognitive objectives with the performance of students taught by the traditional laboratory demonstration method of teaching.

Special objectives of the study were to develop self-instructional programme in the area of clothing construction for teaching a skill at the level of learning which guides the students to an understanding of the process involved and which prepares the students to transfer learning to a new task. It further aimed at appraising self-instructional programme by conducting field experiment in which programme-taught and teacher-taught sections of classes were compared.

Six schools were selected at random from a list of schools within forty miles radius of Greensboro. In each of these schools the class was randomly divided into two sections for seven week period. One section was selected at random for an experimental section and the remaining section became the control section. One hundred and seventeen high school students of six schools enrolled in their first course in Home Economics were the subjects under study. There were fifty seven students in experimental group and sixty students in the control group.

The self-instructional programme was used with experimental section of students in each school and students in control section in each school were taught by their Home Economics teacher.

Four tests and one rating scale were developed for use as criterion variables in this study. They were norm-referenced measures with distributions of scores approximating the normal distribution and were therefore appropriate for use with parametric methods of statistical analysis.

Scores from a previous serving experience questionnaire and pre-test indicated that there were no apparent differences between the experimental and controlled group with regard to the previous serving experience and knowledge.

Five evaluative devices were developed by the researcher for use in comparing the performance of two groups of students. Two of the devices were paper-pencil tests. One was developed to measure recall and understanding of facts and principles in the programme. The second one was designed to measure the attainment of objectives at the application level. A one hour performance test to measure ability to repeat in real life situations procedures which students had been guided to perform while they were proceeding through the programme and a second test attempted to measure attainment of objectives at the application level were also planned.

The fifth criterion variable was a rating scale which was used to quantify the judgments as to the quality of blouse construction.

A multivariate analysis was used to study simultaneously the extent to which five criterion variables differentiated the teacher-taught section from the section taught with the help of programmed learning material.

Two dimensional analysis with method of teaching and schools in which the experiment was conducted were completely crossed. The design therefore was a five variate two-way classification factorial design.

The analysis of data revealed that when the five dependent variables were considered, large differences between teacher-taught and programme-taught sections were clearly evident, the programme taught section being superior. When two factor analysis of variance was used to determine which of the variables descriminated - methods of teaching or schools or the interaction used the result of analysis showed that difference between the programme-taught and lecture-taught section on all variables were significant beyond .01 level. The only source of variation that was significant on all variables was method of teaching.

In summary, all five dependent variables as well as combination of the five variables significantly descriminated between programme-taught and teacher-taught sections, the programme-taught section being superior in each case.

2.5.4 Richards (1967) developed and evaluated a programmed unit at the beginning level in nutrition. The purposes of the study was to evaluate the effectiveness of pupil achievements using a programmed unit at the beginning level of nutrition for secondary pupils. Data were gathered from three experimental groups consisting a total of 82 pupils - both boys and girls. The same teaching units as to objectives, content, learning experiences and resources were used for all the three groups.

The experimental groups utilized unit in addition to traditional methods and the control group was limited to traditional methods of teaching. The findings did not indicate any difference in pupil achievement in the experimental and control groups. There was a statistically significant difference at .05 level for the difference in achievement of high and low achievement when all experimental groups were combined and was not evident within the experimental group.

2.5.5. Wissink (1968) conducted an experiment in the use of programmed materials in teaching clothing construction. The purpose of the experiment was to develop some programmed materials which could contribute to students' independence in learning clothing construction techniques and lessening of the class time spent in clothing construction techniques.

Data were collected from students in pairs from two ninth grade classes with eleven students each. Six basic construction techniques were taught to one class with the demonstration method and with teacher follow-up help. The second class was taught with the use of different types of programmed material and little or no teacher follow-up help.

Data recorded included time used to complete each technique, number of referrals to teacher, to materials and to other sources and the kind of questions asked.

Data indicated that (1) use of programmed material which allowed students to work at her own speed resulted in use of less time to complete the technique. (2) Fewer referrals made to sources other than instructional materials, thus allowing the teacher more time to observe the progress of the class since fewer questions were asked, and quality of construction was as good as or better than that achieved when programmed material was not used.

Time spent to develop programmed materials was deemed justified since they can be repeatedly used by successive groups of students.

2.6 Researches on Programmed Learning Materials Vis-a-Vis Conventional Methods of Teaching at College Level

2.6.1. Berham and Reach (1971) conducted a college level self-instructional programmed course in basic clothing. The research involved development of a linear programme for teaching basic principles of clothing construction to college students with varying degrees of clothing construction experience.

The programme was intended to help students reach the concept of learning while integrating manual skill with formal knowledge. After careful task analysis and statements of objectives in terms of behavioural outcomes a set of programmed frames were prepared. The whole subject matter was broken down into twenty categories.

One hundred and eight students were exposed to a combination of linear and branching method of programmed instruction. In linear programme all students worked through same frames depending upon their performance in programmes.

Answers were written out. Some multiple choice questions were used. The programmed part of the course was divided into sixteen sections consisting of 17 to 44 frames each. The total programme consisted of 434 frames, of which about 2/3 required a written response.

The review and the practice frames were presented throughout the programme rather than grouped together for determining locations.

It was assumed that most students could complete 50 to 80 frames each per session. The slower students would complete 30 to 50 frames per class session of 2½ hours.

A written pre-test was developed to measure students' levels of skill and experiences as they entered the course. The test revealed that students entering the course had varying levels of experience ranging none to ten years. The tests were also designed to measure the knowledge in three areas (1) The sewing machine (2) The pattern (3) and the construction techniques. These measures helped in placing the students at high, medium and low experience level of entering course. It made it possible to determine the degree of students' improvement as result of mastering the course through PLM.

This also helped them to allow certain competent students to by-pass the course. The instructors marked the deficiencies in the student experiences and gave the students only those programmes which dealt with their deficiencies. So the use of PLM in this study was restricted more to remedial purposes.

On completion of the programmed part of the course, students were required to make a self evaluation of their garments in a rating sheet and to a comprehensive test to evaluate their conceptual level of learning. The programme was tested over three terms, with semester hours, with three sections in first two terms. The first term results were used to revise frames and parts of the programme.

The two model garments were evaluated by judges independently. Their judgment was used to check the performance on the rating scales as shown by students. Little difference in rating was found as the criteria for judging were clearly spelt out.

2.6.2. Kanjansthiti (1968) studied the feasibility of use of programmed instruction as a method of teaching basic nutrition to Thai students at college level.

The purpose of the study was to develop and evaluate the programmed material designed to teach basic nutrition at the college level. The primary purpose was to discover if the programme could be translated into Thai and effectively used by Thai students.

A programmed unit on protein was developed and tried out with a group of 51 Ohio State University students. A pre-test and re-test were given before and after the administration of the programme. The mean re-test score was significantly greater than the mean pre-test score. The programme and the accompanying materials were translated into Thai language by the writer and were sent to Thailand.

One hundred Thai Technical College students participated in the study. The pre-test score was 27 and 12 for the respective groups. The difference of mean was significant at less than .01 level (t=24,717 df 99, .01) Most of the Thai students in this group were in favour of use of programmed instructions as a method of learning. The effectiveness of the programmed instruction for teaching basic facts and principles of nutrition to Thai students and the feasibility of translation of the programme from English to Thai was supported by the data obtained.

2.6.3 Murphey (1967) conducted a study on evaluation of by-passing as a technique for adjusting a self-instructional clothing programme to initial individual differences. The purposes of the study were to initiate a by-pass system into self-instructional clothing program developed as a part of the U.S. office of Education Co-operative Research No. 5 - 1042 and to appraise the gated programme using a field test as a source of data.

Preparation of the gated programme included (1) the division of the programme frames into small sections of frames which could be by-passed, (2) disignation of criterion frames in the section as gate frames, (3) the designation of gate frames into student-controlled and teacher controlled gates, and (4) the development of an answer booklet for the gated program including instructions for using the by-pass.

An answer booklet for both gated and ungated form of the program, a time and error record and a student reaction form accompanied the program. Fifty seven first year home economics students in two junior high school classes were randomly assigned to one of the two clothing program experimental conditions : (a) using the by-pass, (b) not using the by-pass.

Findings indicated no significant differences between the two groups with respect to five variables related directly to mastery of programme objectives. Reaction toward programmed teaching and the gated program were generally unfavourable in both the groups. Students did agree that programmed teaching is good ; however, they indicated that the teacher can teach better than a programme can teach and that programmed instruction was a monotonous inducing boredome to learn.

2.6.4 Newman (1967) developed an evaluative device to accompany a self-instructional programme on teaching generalizations and cyclic individual testing on revision of programme.

The purposes of this study were to develop an evaluation device to accompany a self-instructional programme on the teaching of generalizations and to administer the same program on the individual students for the purposes of revising the program.

Subjects used to carry out these purposes were selected from home economics education majors at five universities. A Kudar-Richardson test of reliability and an item analysis were computed. The equivalent forms of the device were combined from one device because their measures of reliability were low. The combined form had a low reliability of .57. Recommendations for revision of the evaluation device were given. The first draft of the programme was administered to nine home economics education majors at the university of North Carolina at Greensboro. Each subject read and responded to the programmed Comments and questions made by the subjects were recorded and used to make revisions in the program. The average time spent reading the programmes was four hours and thirty two minutes. The opinions of the subjects toward this method of learning was favourable. The subjects also indicated that their responses to the programme should be checked by the instructor, and they should be able to check their own work with an appendix of correct responses.

2.7 Researches on Programmed Learning Materials for Different Types of Students

2.7.1 Schenk (1967) studied the use of self-instructional programme on basic sewing skills by adult women, supervised in their homes. The purposes of this study was to determine the usefulness of a self-instructional program. Sewing step-by-step in teaching adult women to sew in their homes without the supervision of a teacher. The program was developed as a part of U.S. Office of Education Research Project No. 5-1042.

Requirements for eligibility of the participants were that the women be high school graduates who had not constructed a blouse or a dress unsupervised since completion of their high school. The ten participants who completed the program were interviewed about their experience and their blouses were evaluated quantitatively, using a scoring device previously developed.

Scores compared favourably with scores of high school students who followed the program when making blouses in the classroom situation. There was wide range in the number of weeks required for completion of the programme. Reaction to the program was generally favourable. This study demonstrated that women can learn to sew using a self instructional program unsupervised in their houses if they read at the eighth grade level, if they are relative beginners in sewing and if they are adequately motivated. Women who use the program should be informed of (1) the characteristics of the programmed instruction, (2) the overall purpose of sewing step-by-step, (3) probable amount of time required to complete the program, (4) procedure to follow in using the program, (5) the preference as to writing or not writing responses, and (6) procedure for panels.

2.7.2 Smith (1967) studied effectiveness of a self-instructional programme to prepare home economics teachers to teach pupils to apply generalizations. The purpose of this study was to determine the effectiveness of a self-instructional program to prepare home economics teachers to teach pupils to apply given generalizations.

The criterion of effectiveness was a paper and pencil test. The field experiment was a two factor design. The first factor, teacher preparation had three treatment groups : (I) Six teachers were given the self-instructional program and a list of generalizations. (II), Six teachers were given a list of generalizations, (III), Six teachers were given neither. The second factor, teaching experience involved three levels : One to four years, five to nine years, and ten or more years.

The eighteen randomly selected teachers taught a three week food unit at the ninth grade level. A total of 242 pupils were in eighteen classes.

Analysis of the data, using orthogonal comparisons showed that the scores of the pupils whose teachers had the generalizations were significantly higher. No significant difference was found in the scores of pupils whose teachers did or did not have the programme.

The directions of the scores favoured the teachers who had the program. No significant differences were found among levels of teaching experience, although the scores of pupils whose teachers had one to four years of experience were higher. There were nosignificant interactions. The conclusion was that this self-instructional program did not prepare the teachers to teach their pupils to score higher on a written test of application of generalizations.

2.7.3. White (1967) studied the effectiveness of self-instructional sewing program when used with disadvantaged adults. The purposes of this study were (1) to examine the problems and successes experience by five disadvantaged adult women as they used a self-instructional program, sewing step-by-step to construct a blouse and (2) to study the problems non-home economics person would encounter in administering the program.

Requirements for participants in this study were that each subject be (1) disadvantaged, (2) willing to attend classes, (3) a beginner in sewing, having had no independent sewing and (4) able to read aloud specified frames of the program. The participants were contacted through local service agencies. Information obtained by two tape-recorded interviews with each participant was reported in case studies.

At the completion of program each participant had constructed a blouse. The blouse was scored using a rating scale which had previously been developed for use with sewing step-by-step. The scores of the blouse constructed by the participants compared favourably with scores of blouses constructed by high school students in the previous field study. All participants as well as the administration has positive attitudes toward this method of learning.

The participants believed that they had learnt to successfully construct a blouse and would now be able to use the knowledge required to construct other garments. The results of this study indicate that this program can be used successfully by disadvantaged adults.

2.8 Conclusion

Analysis of the researches reviewed in this chapter indicate that self-instructional programmes have been used in India for promoting teaching-learning of courses other than home science. However self-instructional programmes have been successfully used in U.S.A. to promote teaching-learning of home economics. The students treated with whether the use of PLM seem to have generally expressed favourable attitudes towards the use of this method of teaching-learning.

One of the unique achievements of use of programmed learning material in home economics is its use for transfer of skill. Most of the programmes were developed in clothing aiming at promoting understanding till the level where clothing construction skill can be developed. The general criticism against the use of programmed learning material is that it promotes acquiring only cognitive form of learning which does not hold true for the programmed learning materials in home economics.

Another contribution of the programmed learning material in home economics is its use for various types of students. Programmes in home economics are found to have been developed for students studying at high school as well as college level, for teachers and for the adults-normal as well as disadvantaged. Most of the studies indicate use of linear form of programme for self instructional purpose. Only in a study where by-pass is used the investigator seems to have used a combination of linear and branching form of programme. Only in one study programme learning material is combined as an aid to the conventional teaching done by a regular course teacher.

Most of the studies reported in this chapter are comparative studies aiming at establishing effectiveness or suitability of programme learning material vis-a-vis conventional methods of teaching. These studies indicate that use of programmed learning material for self-instructional purposes is suitable for the students under study. The students generally have favourable attitudes towards the programmed learning material with an exception of few who find it boring.

The results in terms of scores achieved on the finished product or a criterion test has indicated that student using programme learning material perform better or are at par with those treated through the conventional method of teaching.

Thus, a study, first of its kind in India as far as home science is concerned, to establish the suitability of programmed learning material as a self study method as well as an aid will certainly be a worthwhile contribution in the field of home science education.