DEVELOPMENT OF RESOURCE MATERIAL FOR TEACHING

FOUR BASIC CONCEPTS OF HOME ECONOMICS

EDUCATION IN PAKISTAN

Ву

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CHAPTER I

INTRODUCTION

No system of education can be expected to be better than its teachers. The central role of education in developing the talents of a nation cannot be overemphasized. It is to be expected that education will fall below desirable standards to the extent teachers fall short of their competences. The task of teacher education is vital but it is complex because teacher competences and roles in any society are in a state of constant change. Sorenson feels the need for a reexamination of the teacher education curriculum, because

Fundamental changes are occurring in the public schools as a result of scientific, technological, and sociological changes in our society; and there are abundant signs that, if the professional curriculum in teacher education is to maintain a significant role in training the teacher and in influencing what and how he teaches, it too must change rapidly and swiftly.

Teachers can no longer be expected to succeed and be creative if they have been equipped with a bag of tricks or formulas for teaching. There are no formulas for teaching. The explosion of knowledge in every field has made it imperative to teach students only selected, significant ideas or concepts. This applies to teacher education as well. The professional education of teachers cannot be aimed at giving answers to all the problems in teaching. It is impossible to provide a prospective

¹Garth Sorenson, "Suggestions for an Improved Curriculum in Teacher Education," <u>Journal of Teacher Education</u>, Vol. 17, Fall, 1966, p. 324.

teacher with all the solutions to all the problems she is likely to encounter in her career. A program which helps the prospective teacher conceptualize significant ideas will be of real use to her, because the concepts she possesses will give meaning and organizations to all experiences in teaching-learning and make it possible for her to think through problems and solve them as they arise.

Educators in home economics have realized the necessity of teaching significant ideas rather than a multitude of specific facts or giving students information which the students cannot relate to bigger ideas. This is evidenced by the nationwide interest in the identification of significant concepts and generalizations in each subject matter area in home economics. 2 A very significant contribution to the field of teacher education in home economics has been the effort of a group of leading teacher educators in the United States to identify teacher competences in home economics at the undergraduate as well as the graduate level. Significant concepts and generalizations have been formulated by a selected group of leaders in home economics education, representing 24 higher institutions. The first seminar was held in October, 1964, and the second one in October, 1966. The major accomplishments of the first meeting were a list of seven desired teacher competences at the undergraduate level and a statement of significant concepts needed for each competence. The task at the second seminar was to revise these first

²Mimeographed Work Material for Curriculum Work Shops, Department of Health, Education, and Welfare, Office of Education, Division of Vocational Education, Home Economics Education Branch, Washington, D. C., (n.d.).

³Julia I. Dalrymple, "Concept Structuring of Home Economics Education Curriculum," <u>Journal of Home Economics</u>, Vol. 57, June, 1965, pp. 431-433.

efforts and to formulate competences and concepts significant at the graduate level in home economics education. Behavioral objectives and generalizations were also formulated to further clarify and define the extent of the concepts.

The writer became interested in these key concepts of home economics education, thinking in terms of developing some resource materials for a number of more pertinent concepts which would serve as the content of an undergraduate course in home economics education in Pakistan. The need of organizing the teacher education curriculum in terms of big ideas or concepts was recognized especially because teacher education would be her major responsibility on returning to Pakistan. The need for some resource materials based on significant concepts was felt because home economics education text books have not as yet been written in Pakistan. The writer believes that the concepts identified by teacher educators in the United States are of universal value and therefore are applicable to home economics teacher education in Pakistan. However, some of these concepts are more basic to the program in Pakistan, and this was the assumption on which the particular concepts chosen for this study were selected.

Statement of the Problem

The purpose of this study is to develop curriculum material for teaching a home economics education course at the undergraduate level in Pakistan.

The objectives of the study were:

- To use a conceptual approach in structuring certain phases of a home economics teacher education program at the undergraduate level in Pakistan.
- 2. To develop resource material for this course in terms of four of the concepts identified by teacher educators in the United States.

Description of the Problem

This study is concerned with the selection and use of four concepts to structure the content of a home economics education course in Pakistan. These four concepts were selected from the list of significant concepts identified as being essential and universal by a group of teacher educators in the United States. The problem consisted of developing resource material for teaching these four concepts. This resource material, it is hoped, would be of value both to the teacher educators teaching an undergraduate course in home economics education in Pakistan, as well as to those college students who are preparing to become teachers of home economics at the secondary school level in Pakistan.

The development of these resource materials is based on an approach which would help students develop concepts rather than presenting the concepts in a lecture to the students. The concepts are considered to be essential for students to develop. The type of learning experiences provided for the students (prospective teachers) in Pakistan may differ somewhat from that planned for students in the United States due to differences in the educational program and availability of resources.

Resource material in this study has been developed for concepts in home economics education namely:

- I. Behavioral objectives in the teaching-learning process.
- II. Content in the teaching-learning process.
- III. Learning experiences in the teaching-learning process.
- IV. Evaluation in the teaching-learning process.

The bases for selecting these four concepts were that:

- 1. They have been included in the list of essential learnings or significant concepts of home economics education by leaders in teacher education in the United States.
- 2. They are considered to be basic and contribute toward developing the competence of effective teaching.
- 3. They have been considered essential by other teacher educators and are not limited to the teaching of home economics.
- 4. They are included in the content of home economics education text books thus indicating their significance.
- 5. They are considered by the writer to be most appropriate and useful in a first professional, home economics education course in Pakistan.
- 6. They include a portion of the syllabus accepted by the University of Karachi for an undergraduate course in home economics teacher education.

Delimitation of the Problem

1. The resource material has been developed for four concepts only although there are many others which are significant to be developed among prospective teachers of home economics.

- 2. The pattern used in developing the resource material in this study suggested only one of the many possible ways in which content may be organized to help learners develop significant ideas or concepts.
- 3. This resource material is subject to revision as future research about conceptual learning and teaching reveals new findings.
- 4. As the study was carried out in the United States, the writer could not test the efficacy of the resource materials. This will be possible on return to Pakistan and further changes are likely to be necessary in these materials.

Definitions of Terms Used in the Study

The writer realized the difficulty of giving one single definition of a concept, because almost every author defines a concept somewhat differently. For this study the term concept has been used in two contexts, and definitions are given for both these contexts.

A general definition of a concept: : :

A concept is a relatively complete and meaningful idea in the mind of a person. It is an understanding of something. It is his own subjective product of his way of making meanings of things he has seen or otherwise perceived in his experiences. At its most concrete level it is likely to be a mental image of some actual object or event the person has seen. At its most abstract level it is a synthesis of a number of conclusions he has drawn about his experience with particular things.⁴

When the term concept is used in relation to the significant ideas in a discipline the second definition is more applicable than the first one. The important thing about concepts is the notion of their unifying

Asahel D. Woodruff, "The Use of Concepts in Teaching and Learning," The Journal of Teacher Education, March, 1964, Vol. 15, pp. 81-99.

and synthesizing power, whether they are stated in words or phrases or even complete statements. According to Tyler, 5

Concepts include the cognitive aspect of the curriculum as it is embraced in significant ideas inclusive of definition, generalizations, principles, and unifying or integrating words or phrases.

Generalizations:

A generalization is a complete statement, which expresses an underlying truth, has an element of universality and usually indicates relationships between two or more elements. 6

For this study the terms such as principles, laws and other statements of facts have been considered synonymous with generalizations.

Professional Education Courses:

A sequence of courses intended to prepare a person for the practice of a profession in education dealing with some phase or apsect of practice in the field. 7

Taxonomy of Educational Objectives:

A set of standard classifications of educational objectives, beginning from simple and leading to more complex. 8

⁵Ralph W. Tyler, "The Knowledge Explosion: Implications for Secondary Education," <u>The Educational Forum</u>, Vol. 29, January, 1965, pp. 145-153.

Mimeographed Work Material for Curriculum Work Shops, Department of Health, Education and Welfare, Office of Education, Division of Vocational Education, Home Economics Education Branch, Washington, D. C., (n.d.).

⁷Carter V. Good, ed., <u>Dictionary of Education</u>, (New York, 1959), p. 42.

⁸Benjamin S. Bloom, ed., <u>Taxonomy of Educational Objectives</u>, <u>Handbook I: Cognitive Domain</u>, (New York: David McKay Co., 1956).

Cognitive Domain:

Includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills.

Affective Domain:

Includes objectives which describe changes in interests, attitudes and values, and the development of appreciations and adequate adjustments. 10

The Action-Pattern Domain:

Includes objectives in which some motor response constitutes the essence of the objectives. Psychomotor or manipulative skills would constitute one category within this domain, but many social skill objectives also belong in this domain. 11

Behavioral Objective:

An aim or a goal stated in terms of behavior expected of the learner. $^{12}\,\rm er.$

⁹ Ibid., p. 7.

^{10&}lt;sub>Ibid</sub>.

M. Ray Loree, "Relationship Among Three Domains of Educational Objectives," <u>National Conference on Contemporary Issues in Home Economics Education</u>, (University of Illinois, May 9-13, 1965), p. 75.

¹²Mimeographed Work Materials: Seminar to Identify Home Economics Education Content in Terms of Competencies and Concepts, Department of Home Economics Education, University of Nebraska, under contract with the Office of Education, Lincoln, Nebraska, (n.d.).

Procedure Used for Developing Resource Material

The guidelines for developing resource material for the four concepts were set up after reviewing related literature. Since there is no one method of teaching for concept development, the writer used those processes upon which a greater degree of agreement was obtained. A detailed explanation of the steps involved in the development of the resource materials is presented in the third chapter, preceding the presentation of the developed resource material.

Six steps were followed in the developing of resource material:

- Step 1. Selecting the major concept to be learned.
 - Formulation of one, major generalization which shows the significance of the concept to be learned.
 - 3. Identification or formulation of other, more simple generalizations which give depth and meaning to the various subconcepts within the concept being learned.
 - 4. Formulation of behavioral objectives for the learners

 (prospective teachers) to specifically indicate the desired outcomes expected as a result of concept formation.

 Behavioral objectives have been stated in the form which is similar to the form used in the taxonomy of cognitive 13 and affective domain. 14

¹³Bloom.

¹⁴D. R. Krathwohl, B. S. Bloom, and B. B. Masia, <u>Taxonomy of Educacational Objectives</u>, <u>Handbook II</u>: <u>Affective Domain</u>, (New York: David McKay Company, 1964).

- 5. Suggestions for learning experiences for each concept that would be appropriate for the teacher education students in Pakistan. These learning experiences can be modified and additional learning experiences may be included.
- 6. Suggestions for methods of evaluation of concept formation by the students.

These resource materials are presented after trying several ways and it is hoped that this pattern of presentation will be most helpful to readers.

The study is comprised of four chapters. Chapter I has presented the introduction. Chapter II serves as theoretical framework for the study. In Chapter III, the procedure for developing the resource material is explained and the resource material is presented. Chapter IV presents a summary, as well as implications and recommendations for further study and development.

CHAPTER II

THEORETICAL FRAMEWORK

Role of Concepts in Learning

An inclusive definition of learning calls for considering learning both as a product and as a process. Learning which is a product may be defined as a change in behavior which results from experience. Learning is also a process which brings about the change in behavior as a result of experience. According to Burton, 1

... learning is a change in the individual, due to interaction of that individual and his environment, which fills a need and makes him more capable of dealing adequately with his environment.

Very often, learning is thought of merely in terms of acquiring knowledge. Knowledge is just one part of learning because learning goes far beyond it and is much more complex. Taba² has enumerated many different kinds of learning, which include: mastering motor skills; memorizing information; developing attitudes and values; concepts; and intellectual skills such as generalizing, scientific inquiry and problem solving.

¹W. H. Burton, <u>The Guidance of Learning Activities</u>, (New York: Appleton-Century-Crofts, Inc., 1962), p. 13.

Hilda Taba, <u>Curriculum Development</u>: <u>Theory and Practice</u>, (New York: Harcourt, Brace and World, Inc., 1962), p. 78.

Effective learning is not passively recalling what has been presented. It is an active task in which the learner engages. That which becomes a part of his thinking, feeling and action is what he has actually formulated, responded to or used in some way that is relevant.

Mastery of knowledge cannot be made the aim of education but knowledge can be used in several ways to help learning. Tyler thinks that some knowledge can help the learner in developing understandings which makes it possible for the learner to explain things which he could not do before. Some knowledge is useful for guiding action, such as knowledge of technology that tells how to do things. It is also useful in developing feelings so that the learner is aided in getting new satisfactions and meanings out of various kinds of experiences. One thing which is important is that all of these uses of knowledge require active participation on the part of the learner.

In view of the present explosion of knowledge, mastery of knowledge in any field becomes impossible and it may not even be desirable. This brings out the need for using only that knowledge which is essential in order to grasp and understand certain basic ideas of a field of education. These basic ideas have been referred to as concepts by an increasing number of educators. Psychologists agree that when the learner understands these basic ideas, or concepts, he can better retain that knowledge which is related to concepts.

³Ralph W. Tyler, "The Knowledge Explosion: Implications for Secondary Education," <u>The Educational Forum</u>, Vol. 29, January, 1965, pp. 145-153.

⁴ Ibid.

Concepts have been recognized as a very important part of the cognitive aspects of learning. According to Woodruff, 5 concepts are one of the important cognitive aspects of learning. In his own words,

. . . It is generally agreed among serious students of learning and behavior that such things as attitudes are not primary elements in learning. They are by-products. Learning is not basically a process of attitudinal change. It is a process of change in concepts, motor abilities, values, habits, and symbolism. When these things change, they produce changes in the behavioral manifestations which we call attitudes, appreciations, loyalties and so on. They also produce better thinking, better problem solving, democratic tendencies, and the other goals with which education is so much concerned today.

The importance of concept formation for effective learning has been realized by other educators, as well. Dressel⁶ states that concepts improve learning because they permit the individual to organize every new learning in which he engages and concept formation helps him to deal more intelligently with new situations.

Concepts can also serve to relate courses and disciplines since this would aid the transfer of learning. Course organization oriented to the facts and knowledge of a field of education is not only impossible but it is hardly desirable. This makes learning reduce itself to the level of acquisition of information and it is of little value to the learner as it becomes difficult to retain.

A major issue in curriculum development in home economics has been the maintenance of unity in the field. Dressel 7 feels that at present

⁵Asahel D. Woodruff. Basic Concepts of Teaching. (San Francisco: Chandler Publishing Co., 1962), p. vii.

⁶Paul L. Dressel. "The Role of Concepts in Planning the Home Economics Curriculum." <u>Home Economics Seminar, A Progress Report</u> (French Lick, Indiana, July 24-28, 1961), p. 12.

^{7&}lt;sub>Ibid.</sub>

the unifying elements in home economics are values which place more emphasis on solutions to problems rather than on the process of problem solving. He feels the need for identifying concepts in order to represent tangible ties for a profession, since the central focus of a discipline is its cognitive learnings.

Formation of Concepts

Concepts have been found to play a major role in the cognitive processes of learning. According to Woodruff, 8 all learning begins with some form of personal contact of an individual with an actual object, event, or circumstance. The process by which the senses transmit meaning to the brain is known as perception. It is from these constantly occurring acts of perceptions that people form their concepts which give them their understanding of life. As continued perceptions of an object goes on accumulating impressions in the mind, the meaning grows into a picture of increasing significance. It is this picture that Woodruff calls a concept.

There are certain stages in the development of a concept, perception being the first prerequisite. Woodruff describes this process of concept formation as,

..... Differentiation has long been recognized as the first process in concept formation. It consists of the rather slow task of getting the various entities in one's environment separated from each other so that the identity of each is recognized on contact and one is not mistaken for another. When this separation has been achieved, it is possible for the perceptual process to produce recognition of at least three different kinds of meaning. It is possible (1) to focus attention on the structural characteristics

Asahel D. Woodruff, <u>Basic Concepts of Teaching</u> (San Francisco: Chandler Publishing Co., 1961), p. 88.

of referents, or on the (2) <u>function</u> the referent is performing and the <u>consequence</u> which is being produced by that function, or on the (3) <u>qualities</u> of the referent, such as shape, color, morality, considerateness, gracefulness, efficiency, or speed.⁹

Woodruff explains that from the first (focus on structure) would emerge structural concepts. These concepts would go on developing to reach higher levels when concepts of increasing generality would be formed on the dimension of structure. From the second (focus on function and consequence) would emerge process concepts which integrate to produce concepts of all of the processes going on in life. From the third (focus on qualities) would emerge concepts of qualities, in which the quality has been abstracted from the concrete object or process in which it was perceived and was later conceived.

A significant point is that as any of these concepts develop and approach increasing complexity and maturity, they begin to involve all three kinds of meaning, although it appears that when they reach this stage the process element dominates and they take on the role of process concepts in decision-making behavior. Woodruff says,

... Process concepts seem rather clearly to be the basis of most decision-making because decisions tend to pertain to the resolution of situations which require adjustmental responses and therefore are preludes to adjustive acts in which the process, believed to lead to satisfaction of a need, is carried out. 11

Asahel D. Woodruff, "The Use of Concepts in Teaching and Learning," The Journal of Teacher Education, Vol. 15, March, 1964, pp. 88-89.

¹⁰Ibid., p. 89.

¹¹ Ibid.

The whole process of concept formation can be summarized by the three steps:

- 1. Differentiation and perception.
- 2. Mental image formation.
- 3. More complex and mature mental constructs.

Woodruff is in favor of this hierarchy of processes in concept formation. This means that each succeeding level appears to be dependent on the lower levels. He thinks that it is not possible to form a concept at a higher level for which the individual does not have the lower component elements. Another significant realization is that each level going upward in concept formation represents an increasing distance from concrete reality. Perception, therefore, is the first step which feeds immediate, sensory records of objects and events to the brain. 12 It is appropriate to use the phrase "mental image" for the concepts of these concrete objects and events. From this level on up, however, the concept is not a mental image any more. It is a highly organized and complex idea formed by the learner himself by organizing his percepts in a way that helps him relate effectively to the world and further experiences. At this stage there is no clear mental picture or image of this developed concept. 13

Factors in Concept Formation:

Among the many factors that play an important part in concept formation, knowledge is an important one. The trend had been to consider knowledge as the sole emphasis in teaching-learning activities.

^{12&}lt;sub>Ibid</sub>.

^{13&}lt;sub>Ibid</sub>.

Then came another school of thought which had a viewpoint that knowledge should not be given too much emphasis because attitudes are what the schools need to teach. Recently, knowledge is again receiving major attention but of a different kind. Educators have more recently rediscovered the need for knowledge as the raw material for thinking. It is here that concepts are closely identified with knowledge, since there has been a constant inference that concepts have a significant place in man's thinking processes. The critical factor is whether this knowledge is part of the conceptual scheme or is just at the verbal level. Brandwein, Watson and Blackwood bring out the relation of factual knowledge to the conceptual scheme of a person. These authors are of the opinion that:

. . . Conceptual schemes are made up of concepts; concepts of a series of related elements or facts; and facts of data that result from observation. $^{14}\,$

It must be realized that teaching and learning are not to stop at this level of factual knowledge if the aim of the teacher is to help the students form their own concepts. Bruner 15 says, "The teaching and learning of structure, rather than simply the mastery of facts and techniques, is at the center of the classic problem of transfer."

Several factors other than knowledge have been found to influence the efficiency of concept learning. Marascuilo and Amster 16 studied

Paul F. Brandwein, Fletcher G. Watson and Paul E. Blackwood, Teaching High School Science: A Book of Methods (New York: Harcourt Brace and Co., 1958), p. 111.

¹⁵Jerome S. Bruner, <u>Process of Education</u> (Cambridge: Harvard University Press, 1960), p. 12.

Leonard Marascuilo and Harriet Amster, "The Effect of Variety in Children's Concept Learning." <u>California Journal of Educational Research</u>, Vol. 18, May, 1966, p. 113.

the effect of variety of experiences in children's concept learning of a complex mathematical task. The subjects in this study were selected from high and low socio-economic level schools. The findings revealed that the effect of variety was not significant for the conceptual learning of students for the higher socio-economic status level schools while it was significant for the lower socio-economic schools. This may indicate that a variety of experiences are helpful in conceptual learning for those learners whose experiences have been previously limited.

Woodruff, ¹⁷ while reviewing the research related to the factors that affect the efficiency of concept learning makes some conclusions which are presented in the form of generalizations:

- 1. Concepts form more quickly and with less error when the subject knows in advance what he is to look for.
- 2. Learning of a concept is improved by both emphasis and counter emphasis or directing attention to relevant stimuli and away from irrelevant ones.
- 3. Increased amounts of irrelevant information increase the difficulty and time required in learning a concept, and this relationship becomes more important as the complexity of the concept increases.
- 4. Misinformative feedback (the giving of misleading information to students when they respond to a conceptual problem) is a serious source of difficulty in concept learning, particularly with concepts of increasing complexity.

These generalizations have implications for teaching activities aimed at developing the learner's ability to form and to use concepts.

Asahel D. Woodruff, "The Use of Concepts in Teaching and Learning," The Journal of Teacher Education, March, 1966, 15, pp. 93-94.

A Concept Approach to Teaching-Learning

Concept learning is being recognized as the dominant element in education. A useful way of discussing the conceptual approach to teaching is by comparing it to the traditional or the "comprehensive" technique as identified by Tischler. He discriminates between the "conceptual" technique and the "comprehensive" technique as,

. . . The <u>comprehensive technique</u> which most of our schools use requires that the student study the subject in great detail and depth. Usually this study is accompanied with drill, rote memory, and continuous review. However, in the conceptual approach, the student receives information which may be considered as being one inch thick and one yard wide. The comprehensive approach on the other hand provides information which is one yard thick and one inch wide.

Tischler further explains that concept teaching requires that the teacher and student carefully select material which is important from all the technical, comprehensive content. He feels that concept study must provide motivation and perhaps little or no skill training. Skill training is necessary only after the decision to investigate the material further has been made. In summary, concept teaching provides for decision-making, motivation, meaningful information for the present time, and provides for a means of communication between the student and others.

A conceptual approach to teaching science in the high school has been suggested by Brandwein, Watson and Blackwood. These authors say:

. . . When one looks at learning and teaching, the two sides of the same coin, one recognizes the <u>intent</u> of the good teacher is to help the students develop concepts. We shall propose that the

Morris Tischler, "Conceptual Thinking in a Technical Society," Industrial Arts and Vocational Education, Vol. 55, June, 1966, pp. 26-28.

most useful way of doing this is through the learning activity; the student himself goes through the process of forming concepts. Similarly we shall propose that the meat of science, its <u>content</u>, is the concepts and conceptual schemes of science.

Then concept formation is the intent of science and the concepts formed are its content. When this intent and this content are fused in teaching (and, therfore, in learning), effective education in science is approached. 19

These authors feel that teaching for concept formation in science includes many teaching activities. These activities include a certain proportion of drill, review activities of large concepts as they are applied in actual situations, field-trips, films and some skill activity in the laboratory. Brandwein, Watson and Blackwood summarize the process of teaching for concept development as,

. . . The kinds of problems a teacher helps his students identify are coincident with that teacher's <u>objectives</u>. The way these problems are solved in the classroom is identified with his <u>methods</u>, and the kinds of concepts formed, their scope, and their sequence are identified with the teacher's <u>curriculum</u>. It is for these reasons that we propose that a modern approach to science teaching must not consider problem solving alone, but must in the light of the learning theory consider also <u>problem seeking</u> and <u>concept formation</u>. 20

In a study by Hoover, ²¹ the findings revealed that the concept approach to teaching family relationships, (developed in the study), resulted in the ability of college students to develop conceptual understandings. This indicates that course content, organized on the basis of concepts, principles and generalizations provided an adequate framework for organizing learning experiences in family relationships

¹⁹Brandwein, Watson and Blackwood, p. 109.

²⁰ Ibid., p. 113.

²¹Helene P. Hoover. "Concept Development of College Students Exposed to Systematic, Organized Learning Experiences in Family Relationships," (unpub. Ed.D. dissertation, Oklahoma State University, July, 1966), pp. 112-120.

which encouraged concept development. Several other findings of this research are significant to developing teaching procedures that result in concept formation by the learners.

Hoover's conclusions included the following:

- 1. Students indicated that some learning experiences were more helpful than others in their attainment of conceptual understandings. Analysis of case studies, lectures and analysis of films viewed in class were more effective than were sociodrama, group work and a tape recording in helping students attain concepts.
- 2. Students were able to attain conceptual understanding with progressively fewer planned learning experiences as they moved from one to the other concept.
- 3. Academic ability, as defined in the study, was associated with concept development. Students differed in their ability to state generalizations. Those students associated with low conceptual understandings were able to express generalizations of a more elementary nature, while those students who rated high on concept development stated generalizations which indicated development of higher cognitive processes.

Conceptualization of Curricula

Teaching which is aimed at helping the students discover concepts and generalizations can only be possible when the curricula have been structured to provide for this. This is not to say that all the teaching-learning which has been carried out prior to the notion of teaching by the concept approach was ineffective. Perhaps the effective teachers did use concepts and generalizations or principles in organizing their teaching, but is is possible that they did not recognize that in actuality they were using a concept method of teaching. However, in order to provide for effective teaching-learning by all concerned, it is important that curricula be revised and reframed in terms of the major concepts that make up a certain field or discipline.

Bruner is of the opinion that the problem of curriculum revision according to concepts and generalizations is twofold. He says,

. . . First, how to have the basic subjects rewritten and their teaching materials revamped in such a way that the pervading and powerful ideas and attitudes relating to them are given a central role; second, how to match the levels of these materials to the capacities of the students of different abilities at different grades in school.²²

Bruner 23 sees four advantages inherent in teaching the fundamental structure of a subject, or in other words teaching organized around basic concepts. First, understanding fundamentals makes a subject more comprehensible. Second, detailed and specific facts are very easily forgotten unless structured by some overall, synthesizing concepts. Third, understanding something as a specific example of a more fundamental principle helps as a model for understanding other things that are later encountered. The fourth, structure and principles in teaching is that constantly reexamining content taught in the schools for its fundamental character, thus reducing the gap between the latest knowledge of research and the theories which have become obsolete.

Learning experiences are the crucial factor in planning curricula to develop concepts.

. . . For the learning of concepts the process includes seeing or perceiving a referent, thinking about it until the concept is clear, and then trying out the implications of the new concept until its values become apparent. These are the processes the 1earner must go through. It is up to the teacher to see that he goes through them. 24

²²Bruner, p. 18.

²³Ibid., pp. 23-26.

Asahel D. Woodruff. <u>Basic Concepts of Teaching</u>, p. 156.

When it is not possible to provide the actual referent in a learning experience, it may be presented by some vicarious teaching material. The objectives can be stated in the form of actual statements of concepts which the students are being helped to formulate, but Woodruff cautions against passing these concepts on to the students in a predigested and preconstructed form, the learners have to do their own conceptualizing, and this is really what educates them.

Language is a vital factor in concept development as long as the teacher uses the words already familiar to the student who can recall their meaning. When the teacher uses new words which the students do not understand the learning process will be disturbed and the student will try to memorize the new words instead of making it a part of his conceptual scheme. This factor is important to consider in teaching at the higher level where abstract ideas are conveyed by language. This is especially important to be considered in Pakistan as the medium of instruction may be other than the native language. Used skillfully language is by far the fastest and most effective tool for turning perceptual information into organized concepts. 25

Evaluation of Conceptual Understandings

Evaluation of conceptual learnings can be achieved best by observing the behavior of a student when faced with alternatives. Actions are based on choices, except probably a reflex action, and actions depend generally upon an understanding of concepts, appropriately applied. 26

²⁵Ibid., pp. 180-181.

 $^{^{26}}$ Brandwein, Watson and Blackwood, p. 110.

Evaluation for concept development needs to be varied and many methods of assessment are needed. Bloom²⁷ and his coauthors have developed a taxonomy of cognitive processes and have also suggested ways and examples of how these behaviors can be evaluated. It must be recognized that paper and pencil tests are only one example of evaluation techniques. It is a combination of various techniques that provides for effective and valid evaluation. The student's self evaluation is important when teaching is done with the concept approach, since concept formation is done by the students themselves.

Conceptualization of the Preservice Professional Content of Teacher Education Curriculum

The role of professional education is to help students develop significant basic concepts in their chosen field. This belief is based on the underlying assumption that conceptualization of significant ideas enable an individual in solving or dealing with the problems in his profession. The main aim of the preservice professional content of teacher education should be concerned primarily with bringing about a desirable change in a student's conceptual scheme about teaching-learning. This is essential to

. . . The prospective teacher (teacher education student) who because of many and varied exposures to teaching has formed, prior to course enrollment, certain concepts about teaching and that these concepts exist within some sort of conceptual scheme. If it is further assumed that in most instances the concepts or schemes are likely to be incomplete, since the exposure of the prospective teacher has been limited to the learner position and the criteria for fitting a conceptual structure have been limited

^{27&}lt;sub>Bloom</sub>.

to his own learning-behaving style, then the professional education curriculum should give particular attention to the reorganization and extension of the conceptual scheme of teaching that the prospective teacher already possesses. 28

Traditionally, the broad field of education has been divided into many subdivisions, which may include areas of educational psychology, history and philosophy of education, supervision and administration.

LaGrone ²⁹ is of the opinion that these subdivisions do not help the teacher education student in developing an integrated concept of teaching because these courses are organized in terms of internal consistency and specialization within each area rather than in terms of preservice professional teacher education. This segmentation tends to disconnect and diffuse the content so that it is no longer focussed at the preservice professional education component of a program of teacher education.

The main concern of teacher education is to enable teachers to help other learners learn. This concern should be the pervasive force in all courses of the teacher education student. This implies that the professional education of teachers should be unique and different from other professions, like medicine, law or engineering. LaGrone says "the basic criteria for the selection of professional content should be based on the anticipated teaching functions." Teaching

Professional Component of a Program of Teacher Education: Teacher Education and Media Project (Washington, D. C.: The American Association of Colleges for Teacher Education, 1964).

²⁹ Ibid., p. 9.

³⁰ Ibid., p. 11.

functions" here does not imply the routine, specific, behaviors which tend to make teaching uninteresting or stereotyped, but an insight into the challenges of the role and competences of a teacher.

The TEAM Project:

A major stimulus to conceptualization of the professional content of the teacher education curriculum was the work of the TEAM project, Teacher Education and Media), under the directorship of Herbert F.

LaGrone. This project was aimed at revising the preservice professional component of a program of teacher education. Educators who have been very closely associated with research on "concepts" and "concept approach to teacher education" served as advisors on this committee. These people included, among others, Asahel D. Woodruff (chairman), L. O. Andrews, David Krathwohl, and B. O. Smith.

The outcome of this project was a statement regarding the need and rationale for conceptualization of the preservice professional component of the teacher education curriculum. A proposal was suggested as one way of conceptualization of the purposes and content of teacher education. The content was organized in terms of significant concepts in teaching-learning, and all these concepts were grouped under five courses. The topics for the five courses were:

- Course 1. Analytical Study of Teaching.
- Course 2. Structures and Uses of Knowledge.
- Course 3. Concepts of Human Development and Learning.
- Course 4. Designs for Teaching-Learning
- Course 5. Demonstration and Evaluation of Teaching Competences.

^{31&}lt;sub>Ibid</sub>.

One of the main problems that was faced by this committee was the identification of the concepts to be included as essential at the preservice level rather than at the in-service or graduate study in education.

This proposal emphasized the importance and role of modern media, (educational T.V., videotape, tape recordings, movies, etc.). However, they realized that media served their purpose only when,

. . . a media system is developed along with the professional content, it is possible to assist the prospective teacher in developing the most complete conceptual scheme. 32

A recommendation made by the TEAM project regarding the sequences of concepts to be introduced to the teacher education student is to begin the first professional course with the concepts that are directly related to the classroom functions of a teacher and as the scheme of the student is extended, other concepts like "professionalism" and "building a philosophy of education" may be included. 33

This recommendation has been followed in the present study. The concepts selected to be included in the first professional home economics education course and those which relate directly to the teaching-learning process.

Concepts of Home Economics Teacher Education

A nation wide and major attempt at conceptualization of the preservice phase of home economics teacher education curriculum is the

³² Ibid., pp. 11-12.

³³Ibid., p. 8.

work of a seminar, held at the University of Nevada in 1964. This effort has been previously discussed in the introduction of this study. At this first seminar the group of teacher educators gave attention to an undergraduate home economics teacher education curriculum structure, including expected outcomes, major concepts and major generalizations. The expected outcomes were stated in terms of seven competences. Under each competence a list of major and supporting concepts was included.

For the present study, four concepts were selected to structure a portion of a home economics education (professional) course in Pakistan at the undergraduate level. These four concepts are included under the competence of effective teaching (See competence 5: page 30).

Selected Concepts:

- 1. Behavioral objectives in teaching-learning process.
- 2. Content in teaching-learning process.
- 3. Learning experiences in the teaching-learning process.
- 4. Evaluation in the teaching-learning process.

The list of competences and concepts developed by teacher educators in home economics education is included in the following.

"A Basic Framework of Competences and Concepts for Home Economics Teacher Education Programs at the Preservice Level" 35

COMPETENCE 1: Integrates philosophy of life, philosophy of education, and philosophy of home economics as a basis for thought and action.

³⁴Dalrymple, pp. 431-433.

^{35&}lt;sub>Ibid</sub>.

- Major concept: Philosophy of Home Economics Education.
- Supporting concepts: (A) Aspects of Philosophy of Home Economics Education--philosophy of personal life, philosophy of home economics, philosophy of education. (B) Processes in Development of Own Philosophy of Home Economics Education as a Basis for Thought and Action-identification of own beliefs, evaluation of own and other beliefs, synthesis of a continuously developing philosophy.
- COMPETENCE 2: Identifies and accepts the professional role of the home economics teacher.
 - Major concept: Professionalism--the Home Economics Teacher.
 - Supporting concepts: (A) Characteristics of a Professional Person--commitment, professional code of ethics, participation in professional activities, personal and professional growth. (B) Functions of the Home Economics Teacher Role--director of learning, guidance and counseling person, mediator of the culture, member of the school community, resource person as a home economist, liaison between school and community, initiator of change for improvement of family life. (C) Processes of Role Acquisition--awareness and identification, expectations of significant others, valuing, internalization, and commitment.
- COMPETENCE 3: Establishes and maintains mutually satisfying or acceptable interpersonal relationships in the professional environment.
 - Major concept: Interpersonal Relationships in Professional Environment.
 - Supporting concepts: (A) Self in the Interpersonal Relationship. (B) Others in the Interpersonal Relationship. (C) Communication within the Interpersonal Relationship.
- COMPETENCE 4: Plans and implements effectively the part of the home economics program for which the educator is responsible.
 - Major concepts: (A) Home Economics Program. (B) Bases for Home Economics Program Decisions--philosophical orientation, social and cultural realities, resources, conceptual framework of home economics, learning theory, learners. (C) Program Planning and Evaluation--participation in program planning and evaluation, operational procedures for program planning and evaluation.

COMPETENCE 5: Teaches effectively.

Major concepts: (A) Organization for Teaching-Learning-behavioral objectives in the teaching-learning process, content in the teaching-learning process, planning learning experiences. (B) Guidance of Learning Experiences-use of communicative processes, management of the classroom. (C) Evaluation in the Teaching-Learning Process.

COMPETENCE 6: Uses and participates in research.

- Major Concepts: (A) Functions of Research in Home Economics Education. (B) Research Method. (C) Levels of Participation in Research. (D) Sources of Research Findings.
- COMPETENCE 7: Co-operates as a home economics teacher-citizen in local and expanded community efforts which have significance for individual and family well-being.
 - Major concepts: (A) Interrelatedness of Individual, Family, School and Community for the Well-Being of Families. (B) Civic Responsibility as a Home Economics Teacher.

In 1966, the second seminar was held at the University of Nebraska, where the same group of teacher educators in home economics considered the conceptual framework for organizing the graduate level program in home economics teacher education. A revision was also made of the first attempt in 1964, when the undergraduate level curriculum had been considered to identify competence and basic concepts.

The four concepts selected for this study were also included in the revised version of concepts considered essential in home economics teacher education at the undergraduate level which affirms their significance after reexamination by the same group of teacher educators.

The system of teacher education in Pakistan makes it possible for any college graduate to become qualified as a teacher after only one year's training in a teacher training college. This is a major point of departure in the system when compared to teacher education in the United States. As a result of the recommendation made by the

Commission on National Education in Pakistan, ³⁶ more secondary schools are offering courses in home economics. This creates an increasing demand for teachers of home economics. Since the future of home economics depends to a great extent on the quality of professional education of these teachers, the present study attempts to reorganize a phase of the pre-service teacher education curricula in home economics. This reorganization has been in terms of developing resource material for a home economics education course around four of the basic concepts.

The next chapter presents, first an explanation of the procedure followed for developing resource materials followed by the presentation of the resource material.

Report of the Commission on National Education, Ministry of Education: Government of Pakistan, 1959.

CHAPTER III

DEVELOPMENT OF RESOURCE MATERIAL

Explanation of the Procedure Used for Developing Resource Material

The main concern of this study was to develop resource material for teaching four basic concepts of home economics education at the undergraduate level in Pakistan. The four concepts for which resource material have been developed have been presented in Chapter I and again in Chapter II. All four concepts are essential for students to develop the competence needed for effective teaching.

These four concepts are:

- 1. Behavioral objectives in the teaching-learning process.
- 2. Content in the teaching-learning process.
- 3. Learning experiences in the teaching-learning process.
- 4. Evaluation in the teaching-learning process.

The first consideration in teaching by a conceptual approach is to identify significant concepts to be developed in learners in the desired area. For this study, the four significant concepts were not identified by the writer but were selected from a list of essential concepts in home economics education at the undergraduate level.

(Please see pages 28, 29 and 30 for this list of competences and concepts.)

It might be helpful if an example of a concept other than in teacher education is given. A simple concept in the area of Foods and Nutrition may be

"Growth in relation to protein intake."

The next step in this resource material is the formulation of a major generalization about the concept which is to be developed by learners. If the same example of the concept in nutrition mentioned above is used, a major generalization for this concept may be,

"When a diet is adequate in protein, along with other essential nutrients, then it is likely that growth and repair of body tissues will be promoted."

The next step consists of identifying other, more simple generalizations for a concept. These generalizations indicate what subject mater is essential to be included in teaching for the formation and development of a concept. An example of this simpler type of a generalization is,

"Proteins from animal sources are better able to promote growth than those from vegetable sources."

The next three steps are involved with identifying behavioral objectives, learning experiences and methods of evaluation for each concept. To illustrate, an example of a learning experience for the same concept could be,

"The students plan diets adequate in protein using various protein sources including both animal and vegetable foods."

This learning experience is likely to help the learner attain some desired behavioral objectives. One example of the many behavioral objectives is,

"The learner applies generalizations about protein sources in selecting a diet."

Since this objective relates to the process of thinking, it belongs in the category known as the "Cognitive Domain." A method of evaluation can be a paper-and-pencil test item in which students are to identify certain foods from a list of foods which are likely to meet the daily amount of protein recommended.

These examples serve to illustrate the steps of procedure used in this study to develop resource material. Four significant concepts were selected, and generalizations were identified for each concept. Some of these generalization were formulated by the writer, while others were selected from a list of generalizations developed by teacher educators in home economics.

Since learning experiences have been considered to be very important in helping learners develop concepts, the learning experiences which have been suggested in this material follow the stages in concept formation. The three steps in the process of concept formation have been discussed in the following and examples of the types of learning experiences which facilitate this process are also suggested.

1. Perceiving and differentiating one concept from any other by seeing its qualities and characteristics. This involves focussing the student's attention on one significant concept so that its characteristics and qualities can be perceived or seen. The types of learning experiences suggested to bring about perception and differentiation of a concept in this resource material include readings from a variety of references by the student to see the characteristics and qualities of this concept. Observation of teaching serves as a means of seeing the concept to get a mental picture.

- 2. A mental image or a concept is formed by perceiving and differentiating the concept from other concepts. Then a learner organizes and reorganizes this conceptual structure by clarifying doubts, by further questions or discussions. Therefore the types of learning experiences suggested here include discussions, analysis of observation experiences, group and individual reports and questions asked by learners.
- 3. A more complex and mature mental construct or a highly organized concept is formed when the student actually tries to apply his concepts of a certain idea to solving problems which involve an understanding of a particular concept. To follow this element, the types of learning experiences provided in this resource material include opportunities for the students to apply their concepts to developing some examples for each concept. For example, when the students actually try to develop some behavioral objectives for the secondary school students in home economics, they have to apply their understanding of the concept of "Behavioral objectives in the teaching-learning process."

Since some learning experiences are broad enough to relate to more than one behavioral objective, several behavioral objectives have been listed for these learning experiences. Some learning experiences also serve as a method of evaluation and this, too, has been indicated in the resource material.

Behavioral objectives have been classified according to the type of behavior involved. For example, if a behavioral objective relates to the thinking process, the word "Cognitive" has been written in parentheses after the objective. Likewise "Affective" indicates that the objective involves some feelings or emotion. No sequence has been

followed in listing the behavioral objectives since these have been made to correspond to the desired sequence in the learning experience. The belief underlying this was that learning experiences need to be in a certain sequence in concept formation and development, and behavioral objectives are achieved along with these experiences.

The use of films, tape recordings and other modern education media has not been included in this resource material. This is because the writer is not familiar with what exists in Pakistan at present in the way of these resources. On return to the country, such possibilities will be explored and if audio-visual material is available which will enhance the teaching-learning of these four concepts then these materials will be used.

This resource material is not of a prescriptive nature. It includes only suggestions for teaching so that students are likely to conceptualize significant ideas (concepts) related to effective teaching-learning of home economics at the secondary school level in Pakistan. The main difference in this resource material as compared to others is that in place of following a subject matter outline of the syllabi for teaching, significant concepts and generalizations have been used as the guidelines for teaching.

A very important underlying assumption in the use of this resource material is that teacher educators will need to guide and help the students at every stage of concept formation. However, too much teacher direction as is the case when learning experiences are limited to listening to lectures only, makes it difficult for students to think independently and this blocks the process of concept formation. Since the idea of concepts and generalizations will probably be new to most

students the teacher will have to explain some new terms in a language familiar to the students. It may even be necessary to explain some terms in the native language in Pakistan so that the process of concept formation is not replaced by memorization without understanding.

Concept I: BEHAVIORAL OBJECTIVES IN THE TEACHING-LEARNING PROCESS

Major Generalization:

Formulation of behavioral objectives in the teaching-learning process gives direction for selecting content to be taught, learning experiences and for evaluation of student growth.

Generalizations:

- 1. A teacher is more likely to provide meaningful learning experiences for the students when she has clearly defined objectives in terms of desired behavioral changes in the student.
- 2. When goals of education are stated in terms of behavioral objectives, it becomes possible to evaluate student growth by seeking evidences of these changes in student behavior.
- Behavioral objectives can be classified into categories according to the types of behaviors involved.
- 4. Behaviors that relate to thinking processes are classified in the "cognitive" domain,
- 5. Behaviors that involve emotions and feelings belong in the "affective" domain.
- 6. The action pattern domain is mainly concerned with behaviors involving some motor responses, but many social skills also belong here.
- which includes the thinking processes, emotions and feelings, and action patterns, then it becomes possible to educate the whole individual.

- 1. Is willing to express personal opinion regarding objectives and the need for educational objectives. (Affective)
- 1. Students get together in groups and have a brain-storm, the question is:

"What are objectives, what is the need for objectives in education?"

This learning experience provides a means of focussing the attention of students on the concept, "Behavioral objectives in the teaching-learning process." The discussion following the brain-storm might indicate to the teacher the students' present concept of educational objectives. This would serve as a starting point for an introduction.

The learning experience serves as a method of evaluation.

- 2. Recalls meanings of terms such as "objectives," "behavioral objectives," "cognitive," "affective," "action-pattern," "psychomotor," "domains." (Cognitive)
- Students read about educational objectives from a selected reference list (see references for Concept I on p. 44). These readings are selected from several textbooks in home economics and education in general.

Group Presentations:

The teacher may find it helpful to evaluate the presentations, keeping in mind the following factors:

- 3. Differentiates between "behavioral objectives" and "overall, broad objectives," in the teaching-learning process. (Cognitive)
- 4. Is developing some appreciation for the belief that acquisition of information is only one type of behavioral objective. (Affective)
- 5. Is increasingly aware of the variety which is desirable in formulating behavioral objectives in the teaching-learning process. (Affective)

Presentations are given by the students in terms of the following questions:

- a. What is the significance of objectives in a program of education?
- b. How do broad, overall objectives differ from behavioral objectives?
- c. How do behavioral objectives assist in the process of teachinglearning?
- d. What types of behavioral objectives belong in the cognitive, affective, and actionpattern domain?
- e. Why is it essential to formulate behavioral objectives in these domains.

- m. a. How does the student present new ideas to the class members.
 - b. Is there enthusiasm about presentation (arranging materials interestingly, pulling significant ideas from readings).
 - c. Are fellow class members encouraged to ask questions and participate in discussion.

- 6. Is becoming familiar with what 3 are the Pakistani educators' recommendations are about goals of education (Cognitive)
- 7. Is developing some awareness of issues related to educational objectives at the secondary level in Pakistan. (Affective)
- 8. Asks the opinions of other teachers, and friends for their opinions about the educational objectives in home economics in Pakistan and why. (Affective)
- 9. Is able to identify the type of behavioral change implied by a stated behavioral objective. (Cognitive)

Students read the <u>Report of the Commission on National Education</u> (Pakistan) in relation to the following:

- a. The broad, overall goals of education recommended.
- b. The aims and purposes of education for women.

Students read the Report of the Curriculum Committee for Secondary Education: Pakistan, in relation to the following:

- a. The objectives of secondary education.
- b. The objectives of teaching home economics at the secondary school level.

The evaluation may be based on evidences of students interest and enthusiasm about educational objectives in the Pakistani educational set-up. These may include:

- a. The student brings paper clippings of opinions, news, and controversies about educational objectives in Pakistan.
- b. Contributes ideas in class discussion related to this idea.
- c. Reads some related references which are not assigned.

- 10. Is willing to take a stand on 4. the issue that educational objectives are an essential part of any teaching-learning process. (Affective)
- 11. Observes the process of teaching-learning, and is able to pick out examples of some of the behavioral objectives used by the teacher, as well as trying to identify those evidenced in her teaching. (Cognitive)
- 12. (As stated previously) Is able to identify the type of behavioral change implied by a stated objective. (Cognitive)
- 13. Can suggest some original examples of behavioral objectives in any of the subject matter areas of home economics. (Cognitive)

- Students observe teaching of home economics in a secondary school. They center attention upon the following:
 - a. The goals stated by the teacher for the class in which the observer was present.
 - b. Identify some goals or objectives if none was stated by the teacher but her teaching gave some indication of it.

The students write observation reports, in which some actual statements made by the teacher and learners are included, which relate to the idea of goals and objectives in the teaching-learning of home economics. The students may share ideas and ask questions in a discussion which follows the observation experience.

A written report of the students' observation may be evaluated keeping in mind the following factors:

- a. Was the student able to identify some objectives in the classes observed, and whether these objectives were stated by the teacher or just indicated by her teaching.
- b. Is the student able to pull together some ideas about behavioral objectives which seemed significant after this observation.

- 14. Is able to think of several original examples of behavioral objectives in a specific, subject matter area in home economics suitable for learners in the secondary schools in Pakistan. (Cognitive)
 - 5. The students examine several sample behavioral objectives in home economics for the secondary school level in different subjects. (Some samples included in Appendix, pp. 77-79.)

After examining these samples, the students may have some questions or suggestions for additional behavioral objectives in the same or other subject matter areas.

Each student may select a specific subject matter area in home economics at the secondary school level, and develop several behavioral objectives in this area. This would be an individual effort, however, students may find it helpful to ask questions as they proceed.

The learning experience also serves as evaluation.

This individual effort by the student at formulating some original examples of behavioral objectives is likely to indicate to the student herself and to the teacher, her ability to apply her knowledge and understandings to an actual situation.

References Selected for Concept I

1. Bloom, Benjamin S., Editor, <u>Taxonomy of Educational Objectives</u>, <u>Handbook I</u>: <u>Cognitive Domain</u> (New York: David McKay Company, 1956), pp. 1-9 and 25-63.

A useful discussion of a system of classifying educational goals in the Cognitive, Affective and the Psychomotor domains. Presents sample behavioral objectives which belong in the Cognitive domain.

2. Hatcher, Hazel and Mildred E. Andrews, <u>The Teaching of Home Economics</u> (Boston: Houghton Mifflin Co., 1963), pp. 178-188.

A discussion on setting class goals in home economics.

3. Hall, Olive A. and Beatrice Paolucci, <u>Teaching Home Economics</u> (New York: John Wiley and Sons, Inc., 1961), pp. 149-180.

Deals with determining home economics objectives, and how students relate objectives to learning experiences and evaluation.

4. Report of the Commission on National Education, Ministry of Education: Government of Pakistan, (Karachi: Govt. of Pakistan Press, 1959), pp. 10-13 and 189-194.

Recommendations for the goals of education in Pakistan, and especially those for women.

5. Report of the Curriculum Committee for Secondary Education (Rawalpindi: Government of Pakistan Press, 1961), pp. 11-27; 182-190; 364 and 417-424.

Explanation of basic considerations in planning the curriculum; stages, problems and objectives of secondary education; home economics for classes VI to VIII, and for classes IX to X.

6. Tyler, Ralph W., <u>Basic Principles of Curriculum and Instruction</u> (Chicago: University of Chicago Press, Syllabus Division, 1950), pp. 3-40.

A general discussion of sources of educational objectives, stating objectives in terms of behavioral outcomes desired by the learners and using objectives as guides in selecting learning experience and evaluation of student growth.

7. Williamson, Maude and Mary S. Lyle, <u>Homemaking Education in the High School</u> (New York: Appleton-Century Crofts, 1961), pp. 3-44.

A discussion of the relationship between home economics objectives and those of general education.

Concept II: CONTENT IN THE TEACHING-LEARNING PROCESS

<u>Major Generalization</u>: When learning is considered to be broader than memorization of information, then it is likely that subject matter content will be used as a base for developing higher mental processes like thinking and problem solving.

Generalizations:

- 1. A field of education is composed of a systematic body of knowledge.
- 2. The content of home economics subject matter is divided into five major areas in Pakistan, namely, Child Development and Family Relationships; Clothing and Textiles; Foods and Nutrition; Housing, Family Economics and Home Management; and Related Arts and Crafts.
- 3. The goals of teaching are likely to be reflected by the manner in which teachers organize subject matter content for instruction.
- 4. A meaningful way of organizing subject matter content for any area in home economics is in terms of basic concepts and generalizations.
- 5. A concept is a big idea used to organize objects and events into a smaller number of categories; they can serve as a basis for organizing curriculum content at different levels and in different areas.
- 6. A generalization is a complete statement which expresses an underlying truth, is applicable to many situations and usually indicates relationship between two or more elements.

- 7. No subject has any inherent qualities or superiority over any other subject in thinking or in training students to think.
- 8. When the teacher sees no goal or purpose of learning some subject matter, then memorization of subject matter alone is likely to occur.
- 9. When learners are forced to memorize specific facts without relating these facts to a bigger idea (concept) it becomes difficult for them to retain these facts for a long period of time.
- 10. Factual information tends to be forgotten easily unless opportunities are provided for its use and application.
- 11. When the teacher capitalizes on the interests and immediate needs of learners in organizing subject matter for teaching, she is using a psychological approach.
- 12. The logical organization of subject matter is based on the systematic arrangement of concepts and generalizations in an area of education.
- 13. The psychological approach for organizing subject matter is of greater value with children, while the logical organization of subject matter may be more meaningful to mature adults.
- 14. The tendency to memorize becomes greater when the medium of instruction for students is a language which is less familiar and other than their native language.

- Comprehends meanings of terms like "concepts," "generalizations," "principles," "facts," "subject matter content." (Cognitive)
- 2. Differentiates between a concept and a specific subject matter topic. (Cognitive)
- Students write what they understand by the terms "subjectmatter content," "facts," "principles," "generalizations," "concepts." This is done without consulting any books or reference material, so that it is possible to get at the students' present knowledge and understanding about this concept. It is likely that some students may not have knowledge or any meaning for these terms. This can serve as a starting point for the introduction by the teacher. Students are then asked to find out the meanings of these terms from references they can find. This will help the students to start the process of forming a concept.

The learning experience also serves as evaluation.

- 2. (As stated previously) Differen- 2.
 tiates between a concept and a
 specific subject matter topic.
 (Cognitive)
- 1. (As stated previously) Comprehends meaning of terms like
 "concept," "generalization,"
 "subject-matter content," "principles," and "facts."
 (Cognitive)
- 3. Recognizes various subject matter areas which make up the content of home economics. (Cognitive)
- Identifies generalizations in discussion of subject matter. (Cognitive)
- 5. Is developing a belief that memorization of information falls short of the aim of education. (Affective)

Students read selected references (see references for Concept II on page 52), and have a panel discussion in which the following emphases are highlighted:

- a. Role of subject matter in learning.
- b. Organization of subject matter, logical and psychological.
- c. The function of concepts and generalizations in learning.
- d. Difference between learning organized around concepts and generalizations and learning limited to memorization of specific information.
- e. Difference between concept formation and memorization of information alone.

A paper-and-pencil test may be be used which attempts to measure the student's ability to comprehend and recognize meanings of terms like "concepts," "generalizations." A number of test items may consist of several statements, from which students may be asked to identify those which are examples of generalizations.

Evaluation of students' ability in identifying some basic concepts from the subject matter outlines (syllabi) in home economics. Students may be asked to write these concepts they have identified from the subject matter outlines.

- 2. (As stated previously) Differ- 3.
 entiates between a concept and a
 specific subject matter topic.
 (Cognitive)
- 3. (As stated previously) Recognizes the various subject matter areas in home economics. (Cognitive)
- Analyzes subject matter in various areas of home economics to identify some concepts. (Cognitive)

7. Is willing to examine subject matter in home economics to identify some basic concepts. (Affective)

Students examine and analyze courses of studies (Pakistani syllabi) in home economics at the secondary school level to identify some basic concepts in the various subject matter areas.

A discussion follows in which students share their examples of some concepts they have identified from the syllabi and also state why they think these are concepts. Any misconceptions can be revealed here and the teacher may help to clarify these.

examples of concepts in any home economics subject matter area they wish to select. Then the students identify some generalizations for at least one concept.

This learning experience serves as a means of identifying the students' ability to think of some examples of concepts and generalizations in one subject matter area of home economics.

- 8. Is increasingly aware of concepts 5. and generalizations in different areas of home economics. (Affective)
- 5. (As stated previously) Is developing a belief that memorization of information falls short of the aim of education. (Affective)
- 9. Is increasingly aware that concepts are more meaningful to students as compared to memorization of information alone. (Affective)

Students are asked to think of 1. examples of some words or phrases which they use in conversation but do not have a clear understanding of their meaning.

This experience helps to illustrate to students that they do not always understand the meanings of words they use, and that verbalization differs from concept formation.

Next the students think of some words or ideas in home economics for which they have detailed knowledge as well as understanding. The experiences which helped them in developing a complete picture (concept) of these ideas can then be identified.

This learning experience may illustrate that several experiences are necessary before a concept can be formed. The teacher may ask the student to write how a child may form a simple concept of something, for example, "food," "dress," "play."

This illustration by the student may indicate to the teacher if the student understands how concepts are formed from a variety of experiences.

2. Students are asked to write any significant ideas that they may have developed after this unit. The teacher may be interested in seeing if they can express these as generalizations.

References Selected for Concept II

- Buston, William H., <u>The Guidance of Learning Activities</u> (New York: Appleton-Century-Crofts, Inc., 1961), pp. 106-112; 340-342; 26-29; 32-33 and 42-47.
 A discussion of what is subject matter; logical and psychological organization of subject matter; origin of knowledge and imposition of knowledge on students.
- Eppright, Ercel, Mattie Pattison and Helen Barbour, <u>Teaching Nutrition</u> (Ames, Iowa: Iowa State College Press, 1963), pp. 102-114.
 Explanation of generalizations and their use in teaching.
- Hall, O. A. and B. Paloucci, <u>Teaching Home Economics</u> (New York: John Wiley and Sons, Inc., 1961), pp. 17-19; 134-136; 208 and 234-235.
 A discussion of subject matter in home economics, and generalizations.
- Hatcher, H. and M. E. Andrews, <u>The Teaching of Home Economics</u> (Boston: Houghton Mifflin Co., 1963), pp. 190-209.
 Developing new learnings through concepts and generalizations in home economics subjects.
- 5. Report of the Curriculum Committee for Secondary Education (Rawalpindi: Govt. of Pakistan Press, 1961), pp. 182-190; 364-365 and 417-426.
 Syllabi for home economics at the middle and secondary school level in Pakistan.
- Williamson, M. and M. S. Lyle, <u>Homemaking Education in the High School</u> (New York: Appleton-Century-Crofts, 1961), pp. 71; 97-98 and 229-230.
 Generalizations in home economics.
- 7. Work Material for Curriculum Workshops, Department of Health, Education and Welfare, Office of Education, Division of Vocational Education, Home Economics Education Branch, Washington, D. C., (n.d.).

 This material presents a listing of significant concepts generalization for various subject matter areas in home economics.

Concept III: LEARNING EXPERIENCES IN THE TEACHING-LEARNING PROCESS

<u>Major Generalization</u>: Meaningful learning experiences are likely to be planned when a teacher uses knowledge about learners' needs, abilities, concerns, interests and previous learning experiences.

Generalizations:

- 1. Learning experiences refer to the interaction between the learner and the conditions around him to which he reacts.
- 2. Learning is promoted when the learning experiences provided are related to the problems the student sees as being real.
- 3. Using a variety of techniques facilitates the identification of learners' needs, interests and abilities.
- 4. Individuals differ in their success of learning through different instructional resources.
- 5. Flexible planning is essential to adapt learning experiences suited to individual needs.
- 6. Successful learning experiences are likely to encourage continued learning, while a feeling of failure is likely to inhibit further learning.
- 7. The quality and depth of learning usually increases when the learner is provided with opportunities in which he has to apply generalizations to solve problems.
- 8. Teaching methods which foster a high degree of interaction among learners offer opportunities for social learning.

- 9. Learning may take place through direct contact with real things as well as through vicarious experiences.
- 10. The more real the learning experience, the greater the number of learners are likely to profit from it.
- 11. Vicarious experiences are more meaningful to older, mature people as compared to children where real or direct learning experiences are more helpful.
- 12. Sometimes a single learning experience may serve to attain several behavioral objectives; at other times more than one learning experience may be necessary to achieve one objective.
- 13. The process of concept formation and development is helped when a teacher makes use of such devices as large and small group discussions, special reports and questions and answers among learners, as well as lectures.

- 1. Recognizes meanings of terms
 like "learning," motivation,"
 "cooperative planning."
 (Cognitive)
- Recognizes a number of different techniques to help pupils learn, like discussions, laboratory, field trips, lecture, demonstrations. (Cognitive)
- 3. If familiar with some means of collecting information about learner's background in Pakistan. (Cognitive)
- 4. Is able to identify conditions which foster or hinder learning in a specific situation. (Cognitive)
- 5. Is willing to consider learner's background information before planning learning experiences.

 (Affective)

Students read several references 1.
 to get knowledge about what is
 involved in planning learning
 experiences. (See references
 for Concept III on page 59.)

A discussion follows centered on the following emphases:

- a. What is learning -- how do opinions differ on what is considered to be learning.
- b. Conditions likely to promote or hinder learning.
- c. Various possibilities of planning learning experiences--teacher directed planning and cooperative planning.

Students may be presented with several case studies which are illustrations of significant ideas, like teacher-directed planning, cooperative planning, conditions which foster or hinder learning.

The student's ability to identify significant ideas from these case studies may serve as an index of their growth in the formation of a concept of learning experiences in the teaching-learning process.

- How to get information about the learner's background which will help in deciding upon the kinds of learning experiences. (The emphasis will be on methods suitable for Pakistan.)
- 6. Is increasingly aware of indi- 2. The students may be helped in vidual differences among learners with regard to their rate of learning. (Affective)
- 7. Is developing a belief that learning is more likely to occur when learners take an active part in planning and carrying out learning activities. (Affective)
- 8. Is constantly aware that learning experiences should help the learners to go beyond the memorization of information. (Affective)

analyzing their own learning experiences in this course, using the two concepts previously learned, and identify:

- a. What learning experiences helped them most in understanding the two concepts.
- b. What learning experiences were not much help in understanding.

The student's willingness to analyze previous learning experiences in this course to evaluate their relative effectiveness may be an indication of developing interest in the concept of planning learning experiences. The students write in their own words about learning experiences that helped in understanding an idea and those which helped to a small degree.

(As stated previously) Recognizes a variety of ways to help learners understand an idea.
 (Cognitive)

c. What additional learning experiences can they suggest which might have been of help in understanding previous concepts.

- Is able to plan and carry out group activities. (Actionpattern)
- 7. (As stated previously) Is developing a belief that learning is more likely to occur when learners take an active part in planning and carrying out learning activities. (Affective)
- 10. Is willing to give some independence to learners to make choices about learning experiences. (Affective)
- 2. (As stated previously) Recognizes a variety of ways to help learners understand an idea. (Cognitive)

3. Students plan for a field trip to see different schools in which home economics is being taught. This learning experience is aimed primarily at giving some opportunity to students to take part in planning and carrying out a learning experience on their own.

Students evaluate the field trip experience to identify if it helped them in gaining some insight into what is involved when a teacher plans for a group activity such as a field trip. Evaluation is also done in terms of what learning took place when the homemaking departments and facilities in several schools in Pakistan were observed.

- 11. Is able to apply generaliza- 4
 tions about learning to solving
 problems concerned with planning learning experiences.
 (Cognitive)
- 12. Is able to think of a variety of possible learning experiences which can be provided for secondary school students to help them understand a concept in home economics subject matter areas. (Cognitive)
- 13. Becomes increasingly competent in making various illustrative materials to serve as visual aids in learning. (Action-Pattern)
- 14. Is able to plan learning experiences for a selected concept from a specific subject matter in home economics at the secondary school level. (Cognitive)
- 8. (As stated previously) Is constantly aware that learning experiences should help learners go beyond memorization of information. (Affective)

4. In one of the learning experiences for Concept II (content in the teaching-learning process), students had developed some generalizations for a concept they had selected in a home economics subject for the secondary school level. Now students are asked to develop some learning experiences for the same concept and generalizations. Students would also be made responsible for developing some visual illustrative material for this concept which will help in teaching at the secondary school level.

> The students would then present their projects to class members and show how they would use this visual illustrative material in helping secondary school students understand a concept in home economic subjects.

This project will be indicative of the students' knowledge and understanding about learning and planning learning experiences for a specific concept. This learning experience provides an opportunity for students to gain some insights into planning learning experiences that actually help in solving a problem.

References Selected for Concept III

- 1. Brownell, William A., and Gordon Hendrickson, "How Children Learn Information, Concepts and Generalizations," <u>National Society for the Study of Education</u> 49th Yearbook, (Part I, 1950), pp. 92-124.
- 2. Burton, W. H., <u>The Guidance of Learning Activities</u> (New York: Appleton-Centruy-Crofts, Inc., 1962), pp. 1-124; 135-246 and 346-378.
 A discussion of the principles of learning, the learner and the teacher and planning and developing units.
- 3. Dewey, John, <u>Experience and Education</u> (New York: The Macmillan Co., 1938), pp. 44-52.

 A discussion on the value of experience in learning.
- 4. Hall, O. A. and B. Paolucci, <u>Teaching Home Economics</u> (New York: John Wiley and Sons, Inc., 1961), pp. 182-240.

 Determining learning experiences in home economics.
- 5. Hatcher, H. and M. E. Andrews, <u>The Teaching of Home Economics</u> (Boston: Houghton Mifflin Co., 1963), pp. 211-227.

 Choosing and carrying out learning experiences.
- 6. Williamson, M. and M. S. Lyle, <u>Homemaking Education in the High School</u> (New York: Appleton-Century-Crofts, 1961), pp. 75-93 and 93-205.

 A discussion on understanding pupils, homes, families and the community; and basic principles of guiding pupil development through various methods.
- 7. Woodruff, Asahel, <u>Basic Concepts of Teaching</u> (San Francisco: Chandler Publishing Co., 1961), pp. 77-123 and 155-215.

 A discussion on learning from experience and planning learning experiences for concepts.

Concept IV: EVALUATION IN THE TEACHING-LEARNING PROCESS

Major Generalization: The extent to which teachers and learners successfully engage in the process of teaching-learning depends upon the goals to be attained, the methods and materials used, and the identification of student-growth toward selected goals.

Generalizations:

- 1. Evaluation techniques help a teacher to determine the extent to which a learner is achieving various educational objectives.
- 2. The kind of evaluation that students expect during a unit of study influences the quality and quantity of their learning.
- 3. Pupil growth and development are continuous, therefore evaluation which is continuous will be a meaningful index of pupil growth.
- 4. The greater the extent of participation of learners in the process of evaluation, the more valuable the evaluation is likely to be.
- 5. The greater the number of significant records of pupil growth, the more objectively can the growth of learners be evaluated.
- 6. Self evaluation by the student tends to give him personal satisfaction with his progress and to motivate further achievement.

- 7. The more adequately the teacher samples the behavioral objectives in the construction of a measuring instrument, the greater the validity of the test will be.
- 8. The reliability of a test may be increased when two or more people marking the same test repeatedly have a high degree of agreement among the scores.

- Is increasingly interested in evaluation and has a desire to participate in self-evaluation. (Affective)
- 2. Is willing to consider evaluation as a necessary part of the teaching-learning process. (Affective)
- . Students write a composition, the title is:

"Why Examinations Should not be Abolished."

This experience is an attempt to focus the attention of the learners on the concept of "Evaluation in the teachinglearning process." This composition may also serve as an index of the students' present beliefs and understanding regarding the concept of evaluation. This may be used as a starting point by the teacher to motivate students to find out more about evaluation. A discussion which introduces the concept of evaluation would follow this composition.

A paper-and-pencil test which measures students' knowledge and understanding about the concept of evaluation may be used as a pre-test.

- Knows meanings of terms, like 2. testing, measurement, evaluation, assessment, appraisal. (Cognitive)
- Students read a variety of selected references, (refer to the reference list on page 67.) and present reports in terms of the following emphases:

The same test which was first used as a pre-test is taken again. This will help the students obtain some evidence of their growth in the formation of a concept of evaluation.

- 4. Knows the various types of methods and techniques of evaluation suitable at the secondary school level. (Cognitive)
- 5. Is increasingly aware of the broad nature of evaluation. (Affective)

- a. Difference between "measurement" and "evaluation."
- b. Different types of measuring devices in home economics at the secondary school level, i.e., paper-and-pencil tests, performance tests, individual projects, self-evaluation devices.
- c. Strengths and limitations of various evaluation methods and devices.

Discussion follows the presentation of reports where students clarify ideas with the help and guidance of the teacher.

- 6. Is able to apply knowledge about 3. evaluation to understand the Pakistani system of evaluation. (Cognitive)
- 2. (As stated previously) Is willing to consider evaluation as a necessary part of the teachinglearning process. (Affective)
- 7. Is developing interest in making attempts to improve the system of evaluation in Pakistan.

 (Affective)
- 8. Is able to apply knowledge about 4. evaluation to identify desirable characteristics in evaluation devices. (Cognitive)
- 9. Analyzes sample tests and examinations to identify desirable characteristics in evaluation devices. (Cognitive)

Students read from the Report of Commission on National Education, Pakistan, and Report of the Curriculum Committee on Secondary Education, Pakistan. These readings are concerned with the examination system in Pakistan and help the student to know the local system of marking and evaluation.

Students examine some sample evaluation devices, (provided by the teacher). These sampledevices are used to base a discussion and explanation of the characteristics desirable in a

device.

The student indicates her interest in improving the Pakistani system of evaluation by reading independently and expressing personal opinion about evaluation in magazines and newspapers.

The student has the ability to think of some ways of evaluating pupil growth when supplied with information about learners in a specific grade level, and in the various subject-matter areas of home economics.

- 10. Is able to suggest some methods of evaluating pupil growth for secondary school students in home economics subject matter areas. (Cognitive)
- 11. Is able to construct some suit- 5.
 able evaluation devices to use
 at the secondary school level
 in home economics. (Cognitive)
- Students construct some original tests to use at the secondary school level in home economics subject matter areas. This experience provides a chance for the students to apply their knowledge about evaluation to the actual construction of evaluation devices.

The student makes creative effort in constructing some suitable evaluation device to use in the area of home economics for a specific grade level in Pakistani schools.

- 5. (As stated previously) Is in- 6 creasingly aware of the broad na-ture of evaluation. (Affective)
- 2. (As stated previously) Is willing to consider evaluation as a necessary part of teachinglearning.
- The students and the instructor review together the different methods used in obtaining evidence of student growth in this course, with regard to the evaluation process. This experience would provide the learners with a real example of how evaluation forms an integral part of all teaching-learning.

Students write some significant ideas that they may have grasped from the experiences provided for the concept "Evaluation in teaching-learning process."

The teacher would have some evidence of student growth in concept formation by analyzing the statements made by students.

- 12. Is careful and cautious with regard to passing judgment on students' growth with incomplete evidence. (Affective)
- 1. (As stated previously) Is increasingly interested in evaluation and is willing to participate in self-evaluation.

References Selected for Concept IV

- 1. Arny, Clara B., Evaluation in Home Economics (New York: Appleton-Century-Crofts, 1953).

 The whole book forms a basis for understanding the concept of evaluation. A good discussion of validity, reliability and sample evaluation devices in home economics.
- 2. Burton, W. H., <u>The Guidance of Learning Activities</u> (New York: Appleton-Century-Crofts, Inc., 1962), pp. 465-486.
 A good distinction is made between measurement and evaluation.
- 3. Hall, O. A. and B. Paolucci, <u>Teaching Home Economics</u> (New York: John Wiley and Sons, Inc., 1961), pp. 285-339.

 Very useful discussions on test-construction for measuring cognitive learnings.
- 4. Hatcher, H. and M. E. Andrews, <u>The Teaching of Home Economics</u> (Boston: Houghton-Mifflin Co., 1963), pp. 22-285.
 Very good illustration of evaluation devices in home economics.
- 5. Report of the Commission on National Education, Ministry of Education: Government of Pakistan, (Karachi: Govt. of Pakistan Press, 1959), pp. 23-25 and 125-217.

 Examinations in higher education and at the secondary level in Pakistan.
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 Examinations in the Pakistani system of education.
- 7. Tyler, R.W., <u>Basic Principles of Curriculum and Instruction</u> (Chicago: University of Chicago Press, Syllabus Division, 1950), pp. 68-81.

 Evaluation of student growth in terms of behavioral objectives.

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A very good discussion of the purposes, principles and examples of evaluation devices in homemaking.

CHAPTER IV

SUMMARY AND IMPLICATIONS FOR

FURTHER RESEARCH

Summary

The present study was concerned with developing resource material for teaching four basic concepts of teacher education in a beginning home economics education course. These four concepts were selected from a list, "Competences and Concepts of Home Economics Teacher Education Programs at the Undergraduate Level."

This identification of competences and concepts was the result of a seminar in which a group of leading teacher educators in the United States participated in 1964. Seven competences were identified as being essential for home economics teachers and for each competence several basic concepts were formulated to organize the content of home economics education courses. The underlying belief was that an understanding of these basic concepts would be helpful if desired competences were to be attained by prospective teachers.

The writer selected four basic concepts from this list which related to the competence of "Effective Teaching." The main object of

and the confidence of the colors

¹Julia I. Dalrymple, "Goncept Structuring of Home Economics Education Curriculum," <u>Journal of Home Economics</u>, Vol. 57, June, 1965, pp. 431-433.

this study became the development of resource material for teaching a home economics education course in Pakistan using the selected four concepts to organize the curriculum content. Concept formation by students is a prerequisite to problem solving and thinking, therefore the need for concept structuring of a teacher education course for Pakistan was recognized as being important. The main goal of this home economics education course would be developing basic concepts of teaching by students (prospective teachers) rather than the learning or memorization of a great deal of information about techniques and methods of teaching.

The four basic concepts were:

- 1. Behavioral objectives in the teaching-learning process.
- 2. Content in the teaching-learning process.
- 3. Learning experiences in the teaching-learning process.
- 4. Evaluation in the teaching-learning process.

All four concepts were considered basic to the process of instruction. In developing the resource material, generalizations were formulated for each concept. The purpose of these generalizations was to indicate what should be expected from students after they understood each concept.

Learning experiences were developed to help the students in attaining several behavioral objectives. The activities suggested for teaching concepts included a variety of methods like reading a number of references to become familiar with the characteristics and qualities of each concept; discussions and presentations by students to clarify and reorganize ideas; and individual and group projects which necessitated applications of generalizations by the students.

Behavioral objectives were identified to clearly indicate types of behavioral changes desired after the formation of these four concepts by students. Several behavioral objectives related to more than one learning experience, and some learning experiences helped in attaining more than one behavioral objective. Each behavioral objective was classified into either the Cognitive, Affective or the Action-pattern domain.

Evaluation methods were also suggested for each concept. These evaluation methods did not include any instrument or device but suggestions were made as to the type of devices that may be used. A list of references was included which the student would need to read for each concept.

The writer developed three examples of sample behavioral objectives for one concept each in Foods and Nutrition, Family Relationships, and Clothing and Textiles. These could serve as illustrative material to help students in getting a concept of "Behavioral Objectives in the Teaching-Learning Process."

Implications for Further Research

- 1. The main contribution of the present study was to suggest a possible framework for organizing curriculum content related to concept formation in home economics education. The usefulness of this resource material for Pakistan cannot be determined unless it is actually used in teaching a course. This in itself constitutes a problem for research.
- 2. Another implication is that other home economics education courses may also be reorganized in terms of significant concepts and

generalizations. Resource material needs to be developed for teaching other courses so that curriculum content may be revised to include only basic ideas or concepts. The home economics education courses in the Master's degree program in Pakistan may include other important concepts like "Interpersonal Relationships," "Professionalism," "Cooperation in Home Economics Education Research."

- 3. Illustrative teaching material for concepts and generalizations needs to be developed in Pakistan. Audio-visual material like films, and other media need to be prepared for teaching concepts effectively, thus providing meaningful vicarious learning experiences.
- 4. The content of home economics courses in Pakistan are usually outlined in the form of a syllabus and not necessarily in terms of major ideas or concepts. Research is needed whereby these courses can be revised and their content reformulated in terms of concepts and generalizations, both at the secondary school and college level.
- 5. Research which shows the relative effectiveness of various types of learning experiences which will help students develop concepts is essential.
- 6. Evaluation devices and instruments must be developed to provide means of evaluating student growth. This would be in terms of their ability to use concepts and generalizations in solving problems.
- 7. This resource material and other teaching material developed after teaching home economics education courses in Pakistan, might be developed into a textbook for home economics education in Pakistan.
- 8. Exploratory studies are needed which will reveal how to tie in the idea of teaching in terms of concepts into the educational system, patterns of living and cultural beliefs unique to Pakistan.

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APPENDIX

SAMPLE BEHAVIORAL OBJECTIVES IN THREE AREAS OF HOME ECONOMICS

AT DIFFERENT GRADE LEVELS IN THE SECONDARY SCHOOLS

1. Foods and Nutrition:

Grade level: Ninth

Major goal: To help a student realize what is necessary for proper nutrition so that the significance of food habits becomes clear.

Behavioral Objectives: Cognitive Domain

- 1. Remembers and recalls functions of nutrients, and food sources of nutrients.
- Selects appropriate foods for various nutritional needs by applying generalizations about nutrients in foods.
- 3. Applies knowledge and understanding about nutrients and food groups in relation to growth when planning meals for family.
- 4. Analyzes each nutrient in relation to its function in proper nutrition.
- Unifies and integrates the concept that proper food habits are a major factor in growth and nourishment.

These behavioral objectives are those concerned with recall of information and problem solving using generalization, therefore these behaviors belong in the Cognitive domain. Concepts are a part of the cognitive domain, and most often educators are concerned with cognitive behavioral objectives. However, the importance of developing desirable attitudes and values has also received emphasis. On the next page some examples of behavioral objectives are given which belong in another

domain, called the Affective domain, because it includes behaviors that relate to feelings and go beyond knowledge.

2. Family Relationships:

Grade level: Tenth

Major goal: To help the student develop devotedness to one's family in relation to one's own growth as a person.

Behavioral Objectives: Affective Domain

- 1. Is developing awareness of factors that influence her role as a teenager in a Pakistani family.
- 2. Is willing to realize the difficulties involved in changing one's habits or behavior.
- 3. Is developing some appreciation for one's family as it meets her basic needs.
- 4. Is developing interest in factors that influence her family's beliefs and values.
- Makes conscious effort to consider others needs and feelings in the family.
- 6. Is increasingly sensitive and develops a sense of respect for her own self and others in the family.

These behavioral objectives are those which emphasize a behavioral change in a teenager so that she learns to appreciate her family and gets to understand her own self better.

In addition to the behavioral objectives in the Cognitive and Affective domains, learning can also be in terms of developing skills.

Some examples of this third type of behavioral change are presented on the next page.

3. Learning about Family Clothes:

Grade level: Eighth

Major goal: To help the student in developing some skill in using the machine.

Behavioral Objectives: Action-pattern

- 1. Watches techniques of threading and running the machine demonstrated by the teacher, and understands these steps.
- 2. Is able to follow steps in using the machine.
- 3. Is developing increasing skill in using the machine, breaks thread less often than before, stitches fairly smoothly.
- 4. Is able to notice the sound of the machine and detect if tension is correct by looking at a stitched seam.
- 5. Is skilled in using the machine and can make modifications by sewing not only straight but also curved seams.

VITA

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