CONCEPTS AND GENERALIZATIONS AS A NEW APPROACH TO TEACHING
HOME ECONOMICS EDUCATION.
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AS THE MODEL FOR THE GRADUATE IN HOME ECONOMICS HAS
CHANGED TO ONE OF A DECISION-MAKER WHO HAS THE neccessary
KNOWLEDGE AND ABILITIES TO SOLVE PROBLEMS AND MAKE JUDGMENTS
FOR HIMSELF RATHER THAN APPLY PRESCRIPTIONS LEARNED IN
SCHOOL, THE CONCEPT METHOD OF TEACHING HAS BECOME MORE
IMPORTANT. A CONFERENCE IN FEBRUARY 1961, CALLED TO CONSIDER
HOW A NATIONAL GROUP COULD GIVE LEADERSHIP TO THE
REEXAMINATION OF HOME ECONOMICS IN THE SECONDARY SCHOOL;
BEGAN TO IDENTIFY CONCEPTS FOR HOME ECONOMICS. SUBSEQUENTLY,
six workshops were held, with approximate y 175 home
ECONOMICS TEACHERS, TEACHER EDUCATORS, AND SUPERVISORS
REPRESENTING ALL STATES PARTICIPATING. CONCEPTS RESULTING
FROM THESE MEETINGS ARE GROUPED UNDER THE FOLLOWING
HEADINGS--(1) HUMAN DEVELOPMENT AND THE FAMILY (WITH A
GLOSSARY OF TERMS), (2) HOME MANAGEMENT AND FAMILY ECONOMICS,
(3) FOOD AND NUTRITION, (4) TEXTILES AND CLOTHING, AND (5)
HOUSING. SAMPLE CONCEPTS ARE--(1) IN ALL SOCIETIES
THE INDIVIDUAL'S PLACE WITHIN THE SOCIETY DEPENDS PRIMARILY UPON
AGE AND SEX, (2) THE WAYS IN WHICH PLANS ARE COMMUNICATED MAY
AFFECT THEIR IMPLEMENTATION, AND (3) NON-NUTRITIONAL AS WELL
AS NUTRITIONAL FACTORS PLAY IMPORTANT ROLES IN FOOD
SELECTION. THE APPENDIX CONTAINS A SPEECH BY GEORGE W.
DENEMARK, "THE CURRICULUM CHALLENGE OF OUR TIMES," AND AN
ARTICLE BY ASAHEL D. WOODRUFF, "PUTTING SUBJECT MATTER INTO
CONCEPTUAL FORM." THIS DOCUMENT WAS PUBLISHED BY THE NEVADA
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(MS)
CONCEPTS AND GENERALIZATIONS
AS A NEW APPROACH
TO TEACHING HOME ECONOMICS EDUCATION

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CONTENTS

Chapter I. The Role of Concepts in Teaching

Chapter II. History of the U. S. Office of Education

Secondary School Home Economics Curriculum Project

Chapter III. Curriculum Resource Material

Conceptual Framework and Generalizations in Home Economics

Chapter IV. Using the Conceptual Framework and Generalizations in the Teaching-Learning Process

Appendix

The Curriculum Challenge of Our Times by George W. Denemark

Putting Subject Matter Into Conceptual Form by Asahel D. Woodruff
Chapter I.

THE ROLE OF CONCEPTS IN TEACHING

The rapid expansion of knowledge in all the basic fields makes it impossible for anyone to know all there is to know about a subject. In an address before the Home Economics Seminar at French Lick, Indiana, Dr. Paul L. Dressell stated that "a meaningful organization of knowledge is necessary if the worth of knowledge is to be appreciated and its utility made apparent." He went on to say that much can be done in synthesizing knowledge by introducing global concepts or ideas which tie together what may previously have been unrelated facts. The advantage, of course, is that an individual can become acquainted with the field by mastering a relatively few significant ideas rather than a great number of specifics.

George W. Denemark\(^2\) writing on "The Curriculum Challenge of Our Times," has also stated this need when he said that "teachers of a given subject cannot teach all there is to know about it. For example, the history teacher, even though he is a college professor teaching at the doctoral level, cannot deal with all of history. Drastic choices must be made between what to include and what to leave out. Nevertheless, some of us have made a futile attempt to 'keep up' with the rapid pace of world events by talking faster or assigning more homework."

Dr. Denemark says that an approach which merits careful reflection by all educators is to focus upon the identification of the fundamental principles, the broad concepts, and the big ideas in the various subject matter fields. The answer, he says, is to carefully assess all fields of study and select those elements of each which will provide the strategic keys to an understanding of other events.

Home Economics is not alone in working on the concept approach. In a number of the basic disciplines, emphasis is being placed on developing a list of significant basic or key concepts, so selected that they will be continuously or recurrently used at higher levels of sophistication.

When the basic concepts of home economics are defined, the content of home economics as a discipline becomes more clear. Then curriculum planning may proceed in a more orderly fashion. In the words of George Denemark:\(^3\)

> In large measure the quality of American Education depends upon the extent to which we are able to conceive of a bold new design for the curriculum. The design must include common commitment to a new set of fundamentals derived from rigorous analysis of every field of knowledge.

3. Ibid.
It must also include granting each teacher expanded flexibility to select and choose the specifics best suited to the unique combination of conditions for learning. Achieving the proper balance of stability and flexibility in the curriculum is the challenge of our times for education.

Home Economics is an applied science, drawing its content from research in the social sciences, in the physical and the biological sciences and also from its own research. It also draws from the principles of art and design and applies these to problems of improving home and family life.

In its early days, home economics was concerned primarily with the "hows" rather than the "whys" of practices and procedures. However, as research findings began to contribute more and more to the understanding of the "whys", home economics has been increasingly concerned with applying the findings of research conducted in the arts and the sciences to practical applications. According to Dr. Paul Dressel, "In the present day, the increasing complications of our technology make it impossible to provide the potential practitioner in any vocation with a kit of tools and a set of prescriptions. The model for the graduate is changing to one of a decision maker who has the necessary knowledge and abilities to solve problems and make judgments for himself rather than to apply prescriptions learned in school."4

Asahel D. Woodruff5 stressed the importance of cultivating individual decision-making behavior when he said: "If a learner acts on another person's decisions, he does not know how, or learn how, to make his own decisions. He learns only to carry out specific acts in specific situations. If we wish to affect his behavior through his own knowledge, we must cultivate his own decision-making processes. This requires that we stop giving him the end products of another person's decisions (conclusions or admonitions), and give him the concepts with which he can make his own decisions."

"A concept," according to Dr. Woodruff, "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 and complex level it is a synthesis of a number of conclusions he has drawn about his experience with particular things."

"Its importance," Dr. Woodruff says, is that "Human beings make their decisions, and take their actions on the basis of their concepts about their environment and the particular parts of it which make up a person's situation at any one time. Concepts are the internally lodged elements that determine how a person will react to a particular stimulus situation. People's lives are lived in accordance with their concepts, insofar as they are able to carry out their wishes and intentions."

4. Paul L. Dressel. Ibid.
Herein lies the importance of the concept method of teaching. As individuals gain concepts, they are able to become more competent in decision-making.

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Chapter II.

HISTORY OF THE
U.S. OFFICE OF EDUCATION'S SECONDARY SCHOOL
HOME ECONOMICS CURRICULUM PROJECT

In February, 1961, the Home Economics Education Branch of the Office of Education under the direction of Edna P. Amidon called a conference in Washington, D.C. to consider whether and how a national group might work to give leadership to a reexamination of home economics in the secondary schools in light of changing social and economic conditions in the world. Dr. Marilyn J. Horn, Associate Director of the Sarah Hamilton Fleischmann School of Home Economics, was one of about 20 persons from the states--state and city supervisors, home economics educators, and subject matter specialists--together with representatives of national organizations, who met with the staff of the Home Economics Education Branch and other units in the Office of Education to consider this problem. The group discussed how they might give leadership in the development of guidelines for home economics in the secondary schools, and how they might give counsel and work with the Home Economics Education Branch staff in initiating such a project.

Edna P. Amidon stated that the reasons for the meeting, and the thinking back of the plans made, were related to the national concern about secondary school curriculums voiced by numerous people. Many in the profession, she stated, had expressed the view that criteria were needed to determine what in present secondary school programs had continuing value, what should be dropped, and what needed to be added in order to better serve today's youth--boys as well as girls.

At this February meeting, this group discussed the status of home economics in secondary schools as revealed by the 1959 national study, reviewed the widespread home economics curriculum development programs underway throughout the United States at state and local levels, and after hearing about work underway in various other subject matter fields in the secondary school, explored the idea of defining the unifying elements in home economics. It was suggested that if the basic concepts in the field of home economics could be identified, that this resource material could be used in nationwide development of curriculum. It was decided that this would be a productive approach. Also, approval was given to the preparation of a position paper on "The Place of Home Economics in the Secondary School" which had been recommended by the Executive Secretary of the National Association of Secondary-School Principals. The Bulletin of the National Association of Secondary-School Principals, Volume 48, Number 296, December 1964 carries this statement in a chapter entitled "Home Economics in the Secondary School."


- 1 -
A small start was made at this initial meeting in February on the process of identifying home economics concepts. Then in January of 1962, a subcommittee of five members reviewed a suggested outline of concepts for home economics with some generalizations to support them. This group, also, revised a tentative outline of material on the place of home economics in the secondary school. Next steps in the project were also considered.

**Regional Conferences of home economics education workers -- 1962 and 1963.**

Progress reports on the curriculum project were made at the 1962 Central and Pacific Regional Home Economics Education Conferences and at the 1963 Southern and North Atlantic Conferences. Through presentations, panel discussions and group work, key home economics educators were informed of the plans for the curriculum development project and became involved in the project.

**Workshops**

Two workshops were held in 1962—the first at Iowa State University, July 16-18, and the second at Pennsylvania State University, August 13-24. At the Iowa workshop, concepts and generalizations in family relations were developed. At the Pennsylvania workshop, concepts and generalizations in the area of family economics were developed.

In these workshops specialists and consultants worked with teachers, teacher educators and supervisors to develop a conceptual structure with supporting generalizations. In stating the generalizations basic information given in presentations made by specialists in the areas of the workshops and in supporting disciplines were used. After the workshops these materials were revised in the Home Economics Education Branch on the basis of evaluation and suggestions by workshop participants. Further revisions were made by other selected specialists before duplication of the materials was made for their use at the 1963 workshops as working materials.

Four additional workshops were held in the summer of 1963 as follows:


3. Clothing and Textiles. Washington State University, Pullman, July 1-12. (Dr. Marilyn J. Horn, University of Nevada, served as consultant.)


Approximately 175 home economics teachers, teacher educators, and supervisors representing all states, along with specialists and consultants participated in the workshops and identified concepts and generalizations in the various areas. After further revisions by workshop participants and specialists, another workshop was held in the summer of 1964 at the University of Missouri to refine and combine the materials on concepts and generalizations for the different areas of home economics which were developed in the 1962 and 1963 workshops.
After final editing by the staff of the U. S. Office of Education, the concepts and generalizations were duplicated and sent to the State Supervisors of Home Economics Education for use in curriculum planning and in teaching. (See Chapter III.)

Relating work of secondary and college groups

While the work was being done on the Secondary School Curriculum Project, colleges were also becoming interested in the concept approach to teaching. In July, 1961 a seminar was held at French Lick, Indiana sponsored by the Home Economics Division of the American Association of Land-Grant Colleges and State Universities. Those who attended the February 1961 conference called by the Home Economics Education Branch were invited to this seminar along with others who were concerned with secondary education. These persons considered implications of the work being done at the Seminar to the secondary school curriculum study.

A plan for continued cooperation between Land-Grant College committees working on definition of content, and the Home Economics Education Branch was made.

With a member of the Home Economics Education Branch of the U. S. Office of Education as a consultant, Dr. Alberta D. Hill, a group of teacher-educators met at the University of Nevada in Reno, October 1964, to develop concepts and generalizations for teacher education in home economics. They considered competencies needed for home economics teachers and developed major concepts and generalizations under each competence. Teacher educators, also, will be using the concept method of teaching.
The theory that the identification of basic concepts and generalizations would provide structure for various areas of home economics and valuable resource material for curriculum building was accepted by those who met for a curriculum conference in 1961, and by others who attended the workshops which followed.

A curriculum that is structured on unifying concepts is flexible and can be adjusted to local conditions and to changing conditions, both of which can affect the curriculum. Once the pertinent concepts and generalizations have been identified, the content to develop them can be chosen from among a wide range of possibilities. Also, a curriculum so structured can easily be reviewed in the light of new ideas and information; this would be useful in indicating research which might be needed and in suggesting new approaches to the curriculum. In addition, the identification of concepts and generalizations should facilitate the evaluation of the teaching-learning process.

This paper gives the outlines of concepts and generalizations for home economics developed in the workshops held in 1962 and 1963, and brought together in the 1964 workshop. They are organized under the following headings:

-- Human Development and the Family
-- Home Management and Family Economics
-- Food and Nutrition
-- Textiles and Clothing
-- Housing

The terms concept and generalization are defined in many ways in writings on curriculum. Therefore, it is important to indicate how they are used in this material.
Concepts are abstractions used to organize the world of objects and events into a smaller number of categories. They have many dimensions and meanings and constitute the recurrent themes which occur throughout the curriculum. Examples of concepts which appear in the following pages are:

-- Development and socialization of the individual (See p. 4)
-- Resources and their utilization (See p. 10)
-- Nature of food (See p. 16)

Generalizations express an underlying truth, have an element of universality, and usually indicate relationships. Examples of generalizations which appear in this paper are:

-- As more services are built into foods, the control of industry over the kinds and quality of food increases while that of the home decreases. (See p. 18)
-- The attitudes and information of the meal planner about food and nutrition influence the nutritional adequacy of the food served. (See p. 19)

In developing the generalizations included in this paper, the following criteria were used as guidelines:

-- The generalization is based on objective data, on experience, or on theory accepted by specialists in the field.
-- The terms used have clear and precise meanings.
-- The development of the generalization is an important task of the school.
-- The generalization will provide insight in dealing with new situations in social and cultural learnings.
-- There is a reasonable possibility of learners developing some understanding of the generalization through experiences in the home economics curriculum in the high school.

Since these five outlines were developed by different groups, they are not entirely uniform. Three of the outlines are introduced with brief explanatory statements while the other two are not. The variations in the outline form under which the conceptual structure and generalizations are organized are evidence of the independent work of the subject-matter groups. All generalizations have an Arabic numeral.
HUMAN DEVELOPMENT AND THE FAMILY

The conceptual structure and generalizations for this outline were developed from two separate outlines prepared in two separate workshops—the Iowa State University workshop which focused on Family Relationships, and the Merrill-Palmer workshop which focused on Development of Children and Youth. The two outlines were fused into one because to some extent they overlapped and because it was felt that a single outline would be more useful as resource material for developing home economics secondary school courses or units of courses dealing with child growth and development, and with personal and family relationships.

Numbers in parentheses appearing in certain statements of generalizations refer to the Glossary of Terms included at the end of this outline.

I. Universality of individuals and families

1. In all known societies there is a recognized unit that assumes the functions of child bearing, child rearing, regulation of behavior, and economic support.

2. Cultural patterns are transmitted from one generation to another primarily through the family (1).

3. There are more similarities in family patterns within one culture than there are in family patterns of different cultures.

4. Every known society and every individual has values which give direction to behavior and meaning to life.

5. In all societies the individual's place within the society depends primarily upon age and sex.

6. Within each individual there is an urge to grow (2) toward his fullest potential.

7. There is a universal and irreversible pattern of individual human development (3).

II. Uniqueness of individuals and families

1. Each individual is unique and this uniqueness helps to account for variations in family units within the same culture.

2. There is a reciprocal relationship between the family and society.
3. Each individual family member affects and is affected by his family.

4. Cultures differ according to what is considered acceptable and normal behavior.

5. Since every individual, every family, and every society is unique, the process of socialization (4) is different for each individual.

6. Each individual differs from every other individual in his inherent potentialities.

7. Each individual is unique in his potentialities and in his pattern and rate of development.

III. Development and socialization of the individual

1. Development is continuous and proceeds in an orderly sequence with periods of acceleration and deceleration occurring in each phase of development.

2. When one aspect of development is taking place at an accelerated rate, other aspects may seem to be on a plateau.

3. Critical periods occur throughout the life span during which an individual's total development, or some aspect of it, is particularly sensitive to environmental influences.

4. The human organism has a great capacity for physical, mental, and social self-repair and for adaptability.

5. To the extent that an individual's developmental needs are met as they occur, he is free to move toward his full potential.

6. To the extent that an individual's developmental needs are met consistently and in an atmosphere of emotional warmth and love, he seems to develop a basic trust in himself and in the world around him.

7. Situations conducive to the development of self-respect are those in which the individual is valued as a person of intrinsic worth and dignity.
8. Maturation is change in structure that cannot be measured in amount by means of a standard measuring scale, but can be appraised by reference to an orderly sequence of qualities, features, or stages.

9. Maturity is revealed in an individual's use of the resources available to him to develop his potentialities.

10. A mature adult copes (5) with his environment, shows a certain unity of personality, and is able to perceive and accept the world and himself realistically.

11. The human organism is an open, dynamic system, constantly taking in stimulation from its environment, and constantly behaving in response to the stimulation; such behavior, in turn, affects and changes the environment.

12. Modeling (6) is a particularly effective technique for learning roles, attitudes, and values.

13. When an individual experiences satisfaction from the results of a particular pattern of behavior, he is likely to incorporate that pattern into his behavior.

14. The sense of self (7) grows gradually and continually as the individual participates in an ever-widening environment.

15. Creativity is the capacity to innovate, invent, or reorganize elements in ways new to the individual.

16. In the process of self-development the individual builds up a set of values which are important criteria for his decision making.

17. Value systems are developed as a person's needs are met, as he thinks about and reacts to his experiences, and as he adjusts to change.

18. Some of the most influential and compelling values are held unconsciously.

19. The more accurately the individual perceives his values, the greater his ease in choosing among alternatives of action.

20. Socialization results from a continuous interaction of the individual and his environment.
21. An optimal atmosphere for the socialization process in our society seems to provide a combination of affection and control.

22. Each person's behavior is influenced by the attitudes, values and interpretations of his environment that he has accumulated through his experiences.

23. Values are learned from early and continued experiences in the family, with poor groups, and in the community.

24. The needs of parents and children are sometimes complementary and at other times conflicting.

25. The individual's interpretation of his own role (8) and of the roles of other family members influences his interaction within the family.

26. Families and communities share responsibility for offering children and youth opportunities for education, for maintaining physical and mental well-being, for recreation, for protection from danger, and for developing religious faith.

IV. Challenge and creative possibilities of change

1. The task of socialization is more complex in societies where there is rapid social change.

2. Social change resulting from technological advances, political strategy, and newly emerging or absorbed ideologies places strain on cohesion within and between families.

3. Individuals resist change.

4. Change generally occurs first in the material aspects of culture; this in turn produces change in the nonmaterial culture.

5. Technological changes, advances in science, and improved communication and transportation have resulted in other social agencies assuming some of the responsibilities traditionally performed by the family.

6. When individuals understand change and have some methods and resources for coping with it, they can be a force in determining the direction of change.
Glossary of Terms

1. **The family in America**: the basic social institution composed of persons united by ties of marriage, blood, adoption, or by common consent; characterized by common residence and economic cooperation.

2. **Growth**: change in amount or degree of a bodily attribute (structure) which can be measured by means of some standard measuring scale.

3. **Human development**: all processes of change both in the body itself (structure) and in its behavior (function), from conception through old age.

4. **Socialization**: a process whereby the individual learns the ways of a given culture; involves learning to know himself as well as his environment.

5. **Coping**: purposeful problem-solving, behavior.

6. **Modeling**: the process whereby an individual incorporates into his own behavior the perceived behavior of another with whom he identifies intentionally or unintentionally.

7. **The self**: a composite of the individual's thoughts, abilities, feelings, values, and perceptions of his roles, as well as his concept of himself.

8. **Role**: a function assumed by an individual or a group in a particular situation.
HOME MANAGEMENT AND FAMILY ECONOMICS

Home management includes decision-making and the organization of activities involved in the use of resources for defining and achieving goals of families.

I. Environmental influences on individual and family management

A. Societal
   1. Conditions in society influence stability and/or change in availability and use of resources.
   2. The demands and expectations of society present management opportunities and responsibilities to individuals and families.
   3. Individuals and families have the responsibility to provide for their own welfare beyond the basic expectations of, and protection provided by, society.

B. Economic
   1. The family economy affects and is affected by the larger economy.
   2. Total income and/or goods and services available for consumption are influenced by individual and family productivity.
   3. Individual and family choices influence, and are influenced by, market conditions and marketing practices.

II. Managerial processes

A. Decision-making
   1. Decision-making reflects varying degrees of rationality.
   2. Decisions are affected by the interaction or factors which influence managerial behavior.
   3. Rational decisions represent choices resulting from logical analyses of the elements of situations.
   4. The decisions of individuals and families reflect differences in the perception of goals and goal achievements.
5. Satisfactory decisions may involve family members in different ways at different times.

6. Disadvantages as well as advantages are usually inherent in the alternatives involved in a decision or choice.

7. Risk and uncertainty in decision making vary with people and situations.

B. Organization of activities

1. Organization is the way in which individuals and families carry out activities.

2. The organization of different individuals and families differs in aim and effect.

3. Plans may incorporate more than one decision.

4. The implementation of plans may involve reappraisal and adjustment of procedures to meet changing conditions.

5. Individuals and families may facilitate management through creating routine procedures and coordinating activities.

6. The ways in which plans are communicated may affect their implementation.

7. Effective organization is related to optimal use of resources.

8. Anticipated outcomes and incentives energize organizational processes.

III. Effective elements in management

A. Resources and their utilization

1. The perception of available resources may enhance or limit the management potential of individuals and families.

2. The assessment of a resource in terms of other resources or managerial activities clarifies its contribution to management.

3. The availability and/or scarcity of resources affect the range of choices.

4. Different forms or combinations of resources may yield similar satisfactions.
5. The cost of using resources for any purpose is that which must be given up because of such use.

6. The optimal use of resources varies with differences in families and situations.

7. The changes in the circumstances accompanying family life stages influence the availability of resources and the demands made upon them.

8. Families differ in resources available to meet economic needs and risks.

B. Values, goals, and standards

1. Management by individuals and families reflects differences in values, goals, and standards.

2. Values serve as guides for developing goals.

3. The extent to which goals are realistic is affected by the assessment of resource potential.

4. Flexibility in standards influences adaptability to changing circumstances.

5. Families holding similar values may seek different goals.

6. The rank order of an individual's or family's values may vary in different situations.

7. Clarity of values, goals, and standards is affected by experience in management.
FOOD AND NUTRITION

I. Significance of food

A. As related to cultural and socioeconomic influences

1. The knowledge that nutrition is related to health, longevity, and general well-being has unfolded through centuries of human experiences and has developed into a science that changes and expands with the additional findings of research.

2. Food habits of individuals change as a result of indirect influences such as changes in supply resulting from advances in production, technology, and distribution; economic resources; and the educational, social, and cultural environment.

3. The adequacy of the food supply of people in all parts of the world has an effect upon people everywhere.

4. Distribution of food from areas of surplus to areas of scarcity is necessary for the physical, economic, and psychological well-being of people and carries political implications.

5. The kinds of foods, the ways they are prepared, their grouping in meals, and even the manner in which they are served and eaten constitute the food customs that are characteristic of a country or region. Though these customs differ widely, they can meet nutrient needs equally well.

6. Specific foods, methods of preparation and serving, and times at which foods are eaten, acquire symbolic meanings associated with religious beliefs and ceremonies, social usages, status, ethnic and family traditions, maturity levels, and masculine and feminine roles.

7. The role of food as a socializer, as an aid to breaking down communication barriers, and as a symbol of hospitality and friendliness justifies an appropriate use of resources.

8. Skill in food planning and preparation can be used to satisfy family values and goals and for gainful employment.
B. As related to nutrition

1. All life is composed of, and requires, combinations of elements which, when utilized to form and maintain tissues or sustain activity, are known as nutrients. Food is the usual source of nutrients.

2. Individuals have need for all nutrients, but their differences in ability to store and synthesize nutrients influence the kind, amount, and timing of intake needed for the most effective utilization of food.

3. Combinations of elements required by living organisms are classed as proteins, lipids, carbohydrates, minerals, vitamins, and water.

4. Each nutrient has specific functions; in some cases one nutrient is known to influence the functioning of another nutrient or other nutrients.

5. The energy needed for growth, maintenance, and bodily activity is provided by the oxidation of lipids, carbohydrates, and proteins.

6. All nutrients are used by the body to build and maintain tissues and to regulate body processes. The various tissues and body processes have characteristic nutrient needs.

7. Inadequate, excessive, or imbalanced intakes of nutrients may be detrimental to health.

8. The amount and kind of nutrients needed by individuals vary and are influenced by heredity, age, sex, size, activity, climate, and physical and emotional state.

9. The digestion, absorption, and utilization of food components are interrelated processes influenced by the physical and chemical nature of the foods ingested, the physical and emotional state of the individual, and the interactions of the various nutrients in the metabolic process.

10. The optimum frequency of eating in relation either to physiological comfort or to utilization of nutrients is not known and may differ with individuals and situations.

11. Adequate nutrition can be attained with many combinations of foods commonly available throughout the world. No single food pattern is essential to health.
Basic to the development and evaluation of adequate food patterns is knowledge of the nutrients needed by the body and their sources in available foods.

Instinct is not a reliable guide for food choices; how to select an adequate diet needs to be learned.

C. As related to physiological and psychological satisfactions

1. Non-nutritional as well as nutritional factors play important roles in food selection.

2. The primary satisfactions provided by eating include the relatively immediate sensory and physiological effects it produces and the psychological meanings it has acquired.

3. Hunger is an uncomfortable physiological state which occurs in the absence of food and often influences, and may dominate behavior until relieved.

4. The occurrence of hunger is affected by the time lapse since the last intake of food, the amount and composition of food eaten, the habits of the individual in relation to each of these, his emotional state, and perhaps his inborn hormonal balance.

5. The degree of comfort or discomfort experienced after eating is influenced by the particular foods eaten and their total volume and the interaction of emotional and/or physiological stress with digestive activity.

6. The association of food with intimacy from the day of birth may make it a means of nonverbal communication of love or indifference, acceptance or rejection, and other emotional feelings.

7. Emotional stresses, having no connection with foods in their origin, may be expressed in irrational behavior toward food such as criticism, rejection, or overeating.

8. People are likely to accept a wide variety of foods if they have wide experience, knowledge, and appreciation of foods and if their environment reinforces positive rather than negative attitudes.

9. Wide acceptance of food by the individual can mean easier adaptability to varied social environments and differing economic circumstances, and increased likelihood of obtaining adequate nutrition and pleasure from food.
10. Food habits and preferences are a product of complex interactions among physiological and psychological satisfactions associated with food, beliefs about foods, and economic resources.

11. Food habits like other behavior patterns are subject to deliberate modification by those who are motivated to change and act accordingly but are highly resistant to direct attempts to change.

12. An individual's food habits may be such an integral part of his personality complex that efforts to change may damage his capacity to function effectively.

II. Nature of food

A. Chemical and physical properties

1. A few foods are pure chemical compounds which contain only one nutrient, but most foods are complex systems made up of many chemical compounds, some of which do not have known nutritive value.

2. Similarities in the physical structure and chemical composition of foods are the bases for their classification, handling, and processing.

3. The usefulness of a food in the human diet may be limited by the presence of toxic substances and/or pathogenic microorganisms.

4. The appearance, texture, flavor, temperature, and other sensory qualities that influence the acceptability of food products depend upon the physical and chemical properties of the food.

5. The inherent color of food is determined by the presence of naturally occurring or chemically produced pigments and those physical properties of the food itself which affect light reflectance. The color seen is affected by external factors such as light source and background color.

6. The texture of a food is dependent upon the physical structure of its components. Texture is recognized by sensations induced by various sensory receptors. Structures associated with texture include: crystalline and amorphous solids; liquids of varying degrees of viscosity; and mixtures of liquids, solids, and/or gases in such forms as foams, gels, and emulsions.
7. Flavor is determined by the chemical composition of a food and, for most foods, by small amounts of many different compounds. Flavor is experienced through the taste and odor sensory organs.

B. Factors effecting change in properties of food

1. The intensity and characteristics of some sensory qualities of food can be changed by temperature and depend upon personal sensitivity.

2. Genetic factors and agricultural practices may influence the chemical composition and physical structure of raw foods and make it possible to produce foods with the specific properties required for a variety of processor and consumer uses.

3. The sensory qualities, nutritive value, and safety of foods may be altered by the physical and chemical environment such as changes in temperature, kind of manipulation, and the presence of water, oxygen, and other chemical substances. These changes are usually interrelated and are often affected by time.

4. The storage life, geographic distribution, and variety of food products can be increased by processing food in various ways such as refining, preserving, and manufacturing of new products.

5. Knowledge of the significant chemical constituents and physical systems present, and of the principles governing the physical and chemical processes used, contributes to understanding and control of the physical and chemical changes that occur during food processing and preparation.

6. Directions for obtaining a product of given characteristics are reliable only when the nature of the original food or food mixture, and the effect of the physical and chemical processes to which it will be subjected are considered.

7. The physical processes commonly employed to alter the nature of food include: heating by conduction, radiation, and internal generation; cooling; evaporating; dialyzing; dissolving; emulsifying; crystallizing; agitating; fractionating; and comminuting.

8. Food storage and preservation methods are designed to retain or enhance the initial nutritive value, safety, and sensory qualities of food through the control of natural maturing processes, the growth of contaminating
microorganisms, and a variety of chemical reactions and physical changes.

9. Research continually extends our understanding of and ability to control the nature of food and its behavior.

10. Technological developments that result in changes in the nature of food and food products often bring a need for changed procedures in food handling, storage, and preparation.

III. Provision of food

A. Production

1. As more services are built into foods, the control of industry over the kinds and quality of food increases while that of the home decreases.

2. Changes in agricultural practices, in technological developments, and in size and the composition of population affect per capita supply, distribution, and consumption of food.

3. When there is a scarcity of land and an increase in population density, the reliance on primary (plant) sources for food increases, and the discovery and use of new sources of food become increasingly important.

4. Technological growth and current sociological trends promote developments in food processing, acceptance of a variety of food forms, and changes in patterns of consumption.

B. Consumer practices

1. Rational choice becomes more difficult as the number of food products and ways of merchandizing them increase.

2. Consumers' choices are a determinant of marketing practices, prices, and of the qualities of foods in the market.

3. Informed consumers making rational and discriminating choices in the purchase of food can influence the functioning of the market to serve consumer interests and to improve the effective use of resources.
C. Protective measures

1. Safety of food is determined by the natural qualities, by the procedures used in the production and processing, and by the sanitary measures used in the handling and storing of food in the market and in the home.

2. Federal, State, and local agencies work toward the protection and guidance of consumers in their purchase of certain foods by assuring the wholesomeness of these foods and their freedom from adulteration, by establishing standards of identity, by requiring truthful labeling, and by prohibiting false statements in advertising.

3. When there is evidence that the addition of a particular nutrient or other additive to a food serves a useful purpose, government defines and regulates such additions.

4. The support and cooperation of informed citizens increase the effectiveness of government and private agencies in improving the quality, safety, and quantity of the food supply.

D. Management of resources

1. The attitude and information of the meal planner about food and nutrition influence the nutritional adequacy of the food served.

2. The individual's knowledge of nutrition contributes to a wider freedom of choice among foods in attaining adequate nutrition.

3. Discrimination is required in the selection of foods that contribute a balance of nutrients to the daily diet and at the same time fulfill such non-nutritive requirements for daily meals as are involved in meeting food budgets, family traditions, and individual preferences.

4. Nutritional knowledge helps the individual evaluate food fads, fallacies, and sensational claims which may be harmful to health or lead to economic problems.

5. Participation in planning, preparing, and serving meals can be a source of pleasure and satisfaction, and can provide an opportunity for aesthetic and creative expression.

6. Participation in accepted social practices can contribute to the individual's facility and sense of security in various situations involving food.
7. The organization of activities in providing food for the family involves planning and coordination of resources and family demands.

8. The resources available for meeting personal and family food needs include personal capacities, available goods and services, and purchasing power.

9. While a competent manager can reduce the amount(s) of money needed for food, there is a practical minimum below which it becomes increasingly difficult to acquire adequate nutrition and to provide culturally accepted variety in food.

10. Use of resources for household food production is influenced by the values (nutritive and non-nutritive) placed on food, the kind and quality of resources available, and the personal satisfaction derived from producing food.

11. The choice of which resource to use in providing food for the family depends upon the quantity of each resource available, the cost of the alternatives and their effectiveness in producing the desired result, and the ability of the user to employ the resources for the purpose desired.

12. Family food costs will vary with the size and composition of the family, the value placed on food, and the resources available.

13. Performance of routine tasks according to a plan designed for repeated use facilitates planning, preparing and serving food.
TEXTILES AND CLOTHING

I. Significance of textiles and clothing to the individual in society

A. Interrelationship of clothing and culture

1. In all cultures dress has provided a means of: physical protection; self-adornment; conveying status; group, role, and sex identification; portraying ritual symbolism; and self-expression.

2. Dress, including self-adornment, emanates from the culture and reflects the political, economic, and religious mores of the times.

3. Variations in clothing exist within a culture as well as among cultures.

4. Clothing customs are transmitted from group to group, generation to generation, and from the society to the individual.
   a. Some customs of dress are only folkways, and conformity to these is not essential to the welfare of the group; other customs of dress are considered mores and embody the basic moral values of the culture.
   b. Dress takes on new meanings and associations as the social environment changes. Similar, but not necessarily identical, customs are carried from generation to generation.
   c. Individuals learn by social sanction what clothing behaviors are accepted in the culture.

5. Clothing reflects social attitudes and values and is related to social change.
   a. Individuals who are able to challenge the status quo bring about innovation in dress which may become integrated into the culture.
   b. The rate of fashion change is related to the rate of change in culture.
   c. Clothing may present a value model for the masses and be an instrument in shaping the values of the multitude.

6. The cultural background of the individual influences choices, means of acquisition, and use of textiles and clothing.

7. Surviving fragments of clothing are tangible resources for the study of cultures of the past, and help to preserve the elements of a culture for future generations.
B. Social and psychological aspects of clothing

1. Clothing is related to group identification and group behavior.
   a. Clothing often reflects social stratification because attitudes and clothing practices may differ at the various socioeconomic levels.
   b. Clothing becomes a less reliable indicator of social class or economic status as similar kinds of clothing become increasingly available to all persons.

2. Clothing is a means of communicating role.

3. An individual may be more readily accepted in a particular role if he conforms to the group's clothing expectations for that role.

4. Clothing may help the individual to make adjustments when changing from one role to another and to attain success in that role.

5. In order to conform to the accepted clothing customs of a group, the individual must accurately perceive these customs.

6. Clothing may be used as a means of satisfying basic needs when these needs are not met in other ways.

7. Clothing is used in defense or enhancement of the self.


9. Clothing and decoration function to convey the individual's mental state, moods, and feelings to others.

10. Clothing is a cue to personality; it conveys an impression of what the individual is, does, and believes.

11. An individual uses clothing as a cue in forming impressions of others.
   a. Impressions made by appearance and dress have greater impact in limited contact situations.
   b. In order to create desired impressions through dress, the individual needs to be aware of the meaning dress communicates to others.

12. As an individual matures, his clothing perceptions and values change.
C. Clothing as a medium for artistic perception, expression, and experience.

1. Clothing may be a source of beauty and personal satisfaction.

2. Clothing may be a means through which the components of art are perceived, illustrated, and experienced.

3. Art components in clothing may be utilized to express meanings, feelings, ideas, and emotions.

4. The elements of art and dress may be organized in such a way that the effect of individual elements is intensified, tempered, or obscured.

5. Variation in the use of art components may alter the frame of reference in which we see the human form.

6. Clothing as a form of artistic expression reflects the cognitive, moral, and social aspects of the era, culture, or society in which it is created.

7. "Taste" in dress refers to sets of values used by an individual or a society in making critical judgments or fine discriminations.

8. Taste is affected by education, by one's perceptual abilities, and by the moral pattern of an era.

D. Textiles and clothing in the economy

1. Production and distribution of textiles and clothing influence consumption patterns of individuals and families.

2. Methods and risk involved in the production and distribution of textiles and clothing influence the quality, cost, and availability to the consumer.

3. The textile and clothing industry is affected by the consumption patterns of individuals and families.
   a. Consumer response to fashion change will result in adjustments in the clothing industry.
   b. Producers and distributors adjust the quality of clothing merchandise to the amount of money consumers will spend.
   c. Political, social, psychological, and geographic factors influence what is produced in the textile and clothing industry.
4. The complex interaction of the world economy, the clothing industry, and consumption patterns affect the cost, quality, and availability of goods to individuals and families.

5. The welfare of society may be affected by economic decisions of the clothing industry, governments, and consumers.

E. Physiological aspects of textiles and clothing

1. Clothing facilitates adjustment of the human body to the environment.

2. The comfort of clothing is influenced by fabric, finish, construction, and style, and the suitability of these for various activities.

3. The physical condition of the human body influences the type of clothing selected.

II. Nature of textiles and clothing

A. Textiles

1. Textiles are products of fiber and/or yarn, fabric construction, and finish.

2. Each fiber has physical and chemical properties which affect its performance in a fabric.
   a. Fibers vary in such properties as length, luster, resiliency, strength, and crimp, and also in their reaction to such conditions as light, moisture, temperature, and stress.
   b. Some characteristics of fibers may not be retained in the finished fabric if blended or combined with other fiber(s) or modified during some stage in the manufacturing process.
   c. Fibers may be modified both chemically and physically to produce desirable characteristics for specific end uses.

3. Differences in yarns result from variations in ply, twist, count, weight, crimp, texturizing processes, and other design variations.

4. The characteristics of yarns produce variation in fabrics with respect to texture, design, function, and end use of the fabric.
5. Fibers and/or yarns may be converted into cloth by various methods such as weaving, knitting, knotting, interlacing, bonding, felting, extruding.

6. Fabric construction is a determinant of the properties of the end product; fabrics produced by different methods have definable characteristics.

7. Finishes may be applied to fabrics to produce and control desired qualities.

8. Factors influencing the choice of finish for a fabric are: the type of fiber and its arrangement in yarn and fabric, the receptivity of the fabric to various finishing preparations, the extent to which the fabric can be chemically modified, and the use for which the fabric is intended.

9. The finished textile will give more satisfactory service when the characteristics of the fabric are compatible with intended end use.

10. Knowledge of the physical and chemical characteristics of textiles and clothing helps individuals and families predict their performance and gain increased satisfaction from selection, use, and care.

B. Garments

1. Garments are combinations of textile and apparel materials, design, and construction.

2. The extent to which component parts of a garment are compatible determines the functional and aesthetic value of the garment.

3. The engineering in the basic construction of a garment affects its appearance, comfort, and performance.

   a. The position of fabric grain in a garment influences fall and pliability of the fabric on the figure. Fabric grain can be distorted by stitching, pressing, and handling during the construction process.

   b. The adjustment of fabric to body contour may be accomplished through the manipulation of darts and seams, and the incorporation of ease allowances.

   c. The appearance and durability of a garment depend upon the accuracy and detail of workmanship in the construction.
III. Acquisition and use of textiles and clothing

A. Selection

1. The factors involved in making clothing decisions include the individual's resources, needs and desires, family composition, and stage in the life cycle, and on the mobility of people, climatic conditions, social environment, and stage in the fashion cycle.

2. The choices made in the acquisition and use of clothing are influenced by the individual's value patterns and the relative importance of his various clothing goals.

3. The decisions made in regard to clothing are affected by the interaction and emotional interdependence of family members.

4. The resources available for meeting clothing needs include available goods and services, purchasing power, personal information, ability, time, and energy.

5. The availability and use of resources for achieving clothing goals are related to the allocation of resources to other individual and family goals.

6. The information provided by agencies and industry through such means as labels and advertising is one resource which may assist the consumer in predicting the performance of textiles and clothing.

B. Use and care

1. The suitability of a textile product for its intended use is dependent upon the nature of the textile, its design, and its construction.

2. The utilization of a textile product is related to the care needed and the facilities available for providing that care.

3. The type of care needed by the product will be determined by the nature of the textile, construction, and ornamentation.

C. Responsibilities of consumers

1. The consumer can improve production and distribution of textiles and clothing by communicating needs, wants, satisfactions, or dissatisfactions to the retailer and the manufacturer.
2. The consumer's purchase of any item of clothing denotes to the retailer or manufacturer approval of the item.

3. The return of items that are unsatisfactory to the consumer is one way of communicating with retailers and manufacturers.

4. The concerted effort of consumers can bring about improved standards of clothing products and increased consumer information.

5. Full utilization of resources and fulfillment of social responsibility require knowledge of, and adjustment to, social and technological change.
HOUSING

Housing fulfills many functions for man. It is the means of modifying his environment to meet his physical needs such as comfort and safety, his psychological needs such as privacy and security, and his social needs for recognition and interaction with people. Man uses satisfaction of housing needs as a means of self-expression.

Housing performs social and economic functions for society. Many of a society's values, patterns of living, and economic, technological, and cultural nature developments are conveyed manifested in housing.

The community, neighborhood, the dwelling itself, and its furnishings and equipment are all aspects of man's housing environment. Some components of housing include location, structure, design, furnishing, and equipment.

Housing takes many forms including multi-family and single family dwellings, apartments, dormitories, rooms, mobile homes, tents, and retirement houses. Housing may be mobile or stable. It may be located in urban, suburban, rural, or in various vacation areas.

The first workshop called to develop material in this area was called Housing, Interior Design and Furnishings, and Equipment. In this outline the title has been shortened to Housing.

I. Influence of housing on people

A. Physical and psychological

1. Housing provides the setting for the physical and emotional development of individuals and families.

2. The characteristics of environment such as temperature, humidity, lighting, noise, odors, fumes, orderliness, and aesthetic qualities affect the physical and psychological well-being of individuals.

3. The variables in a dwelling such as air temperature, relative humidity, and air movement affect heat loss from the human body and therefore physical comfort.

4. The space organization, structural design, and location of the dwelling influence the ease or difficulty of housekeeping tasks and the types of activities engaged in by the individual and/or family.

5. The number, size, design, and location of storage facilities can simplify or complicate family living.

6. The amount of space and its organization affect the physical, psychological, and social reactions of people.
7. The aesthetic character of housing affects the social activities of individuals and relationships between family members.

8. The aesthetic character of housing affects the mental well-being of the housing occupants.

9. Beauty attained through the use of color, design, texture, orderliness, and scenic views contributes to minimizing psychological fatigue.

10. The use of color in a home is decorative and has a psychological effect.

B. Social

1. Housing provides the setting for the social development of individual and family members and their interactions.

2. The family affects the neighborhood and its environment and in turn is affected by the neighborhood and its environment.

3. Housing and its surroundings are status defining for individuals and families.

II. Factors influencing the form and use of housing.

A. Human

1. Housing enables man to satisfy some of his basic physiological, psychological, and social needs.


3. The extent to which an individual's psychological need for beauty is satisfied is related to his aesthetic appreciation.

4. The human factors which influence the form and use of housing are individual and family needs, values, attitudes, aesthetic and educational levels, abilities, and skills.

5. The individual's or family's physical, social, and psychological needs, way of living, and resources influence the choice of dwelling, furnishings, and equipment.

6. Housing standards are influenced by incomes, values, attitudes, educational levels, and housing knowledge.
7. An individual's or a family's requirements for housing change with varying conditions of society, and with variations in the family situation.

8. Persons with physical and mental limitations have special housing needs.

9. The physical condition, age, and personality characteristics of individuals affect the degree to which the dwelling, furnishings, and equipment are used safely.

10. Man consciously or unconsciously expresses his values through housing.

11. The values of individuals and families, their standards, their ways of living, and their preferences affect the neighborhood environment.

B. Environmental

1. Environmental factors which influence the form and use of housing are social, economic, cultural, technological, physical, and political (governmental).

2. Neighborhood and community developments reflect the social organization and cultural values of citizens.

3. The resources expended on housing by a nation or community affect the form, quality, and quantity of available housing.

4. Development and expansion or deterioration and reduction of housing units in a community are affected by policies and activities of Federal, State, and local agencies.

5. The size, design, and construction of housing are affected by zoning ordinances, building restrictions, and by other housing in the community.

6. Planning for neighborhoods and communities is affected by factors such as the role and quality of government agencies and their public support, and by the cooperative or conflicting interests of different individuals and groups in the community.

7. Services, facilities, and utilities supplied by the neighborhood and/or community affect the ways by which an individual or family satisfies its housing needs and wants.
8. Science and technology make it possible for man to regulate environmental conditions within the dwelling by controlling temperature and humidity, providing adequate and appropriate light, controlling noise and odors, and developing aesthetic qualities in the dwelling.

9. Certain technological changes which alter the external environment intensify the need for freedom from distracting noises and for air that is safe from chemical pollution.

III. Processes in providing housing

A. Designing

1. Design is the process of organizing the basic elements of line, form, shape, texture, and color.

2. Art principles are means of design organization.
   a. Balance is equilibrium in a design organization.
   b. Harmony is the relatedness or agreement among the parts of a design.
   c. Rhythm is organized movement in a design.
   d. Emphasis is giving significance to those parts of a design considered important.
   e. Proportion establishes relations between divisions of space.
   f. Scale establishes relations between man and space.

3. Unity is the oneness of a design.

4. Variety is a difference or diversity.

5. Design is the end product of the organization of the basic elements.

6. Form refers to an organization of structural elements in which a designer has expressed his conception and vision.

7. Function as it is understood in architectural theory is an integration of purpose and form at its highest level with beauty as an integral part.

8. Designing any aspect of housing offers opportunities for creativity.
9. Creation of an aesthetic interior requires the harmonious integration of furnishings with structural components.

10. Background interest results from organization of decorative elements.

11. An interior assumes an individual character as the designer responds to the life of the inhabitants and the building structure.

12. The design of housing is affected by the individual and family life cycles and the ability of the designer as well as by the locality, site, and materials available.

13. Advances in technology lead to change in design theory, and change in design theory leads to advances in technology.

14. The extent to which housing satisfies an individual's or a family's desire for privacy depends upon the site, the neighborhood, the placement of the house on the lot, landscaping, and the arrangement of space within the house.

15. Landscaping adds to the beauty, function, and economic value of housing and relates a house to its site and neighborhood.

16. The quality and quantity of lighting affect the function and decorative aspects of rooms.

17. The kind and amount of illumination needed in housing vary with the physical surroundings, the demands of the physical tasks, and the visual acuity of the occupants.

18. Glare occurs when the source of light is too bright for its distance from the seeing task, when the source of light is exposed, when there is a wide contrast, and when the light is intensified by reflection.

19. The quantity and quality of lighting affects the ease of doing visual tasks.

B. Selecting

1. The advantages and disadvantages of buying an existing house (old or new), buying land and having a house built, or of renting, are related to the needs, wants, and resources of the specific individual or family.
2. Rational decisions in selecting, building, or remodeling a house are influenced by the ability of a family to analyze its needs, to recognize areas in which assistance is needed, and to use sources of reliable information and professional services.

3. The decision as to whether to own or rent a dwelling requires weighing of the psychological and financial advantages and disadvantages from the immediate and long-term viewpoints.

4. Rational choice of location and site of housing involves consideration of the climatic conditions, the availability of desired services, and needs, desires, and activities of the individuals or family.

5. The limiting factors in the selection of housing are scarcity of dwellings on the market, availability of materials, inadequate financial resources, governmental restrictions, discriminatory practices, and lack of information.

6. A knowledge of the availability and characteristics of materials, building processes, furnishings, and equipment provides a basis for making rational decisions concerning housing.

7. Legal and other professional advice regarding housing affords protection against ill-advised undertakings and guards against fraudulent and unfair schemes.

8. Space organization, structural design and location of the dwelling influence selection and arrangement of furnishings and equipment.

9. Safety in housing is affected by the type and quality of materials and construction.

10. The factors affecting the choice of fuel for the home are the comparative advantages and disadvantages in its use, availability and cost, user's preference, and practicality of installation.

C. Building

1. The advances in technology and change in design theory result in new building materials and methods of construction.

2. The materials and methods of construction influence the form of housing.
3. The quality of housing is related to quality of design, materials, and methods of construction.

4. The materials and methods used in construction influence the total cost of housing.

5. The adequacy of the installation of utilities affects the safety and efficiency of equipment.
   a. Safety in home wiring is obtained by using materials that carry the label of the Underwriters Laboratories, by installing materials in accordance with requirements of the National Electrical Code and local codes, by keeping wiring in repair, and by using appropriate circuit breaking devices.
   b. Adequacy of home wiring affects the number and kind of appliances that can be used at one time and the performance of heating appliances, motor driven appliances, and lighting.
   c. Where there are regulating agencies, utilities for new and remodeled housing are subject to inspection and approval.

6. Central location of utilities in a dwelling is an economic advantage.

7. Safety in the use of electric equipment is conditioned by safety in home wiring, ratings of fuses and circuit breakers, location of outlets and switches, suitability of outlets, adequacy and repair of insulation within appliances and cords, and precautions in the use of equipment.

D. Financing

1. Housing financing is an integral part of over-all financial management and requires the making of rational decisions with regard to fitting housing expenditures within individual and family income.

2. The kind and amount of housing space a family can secure is influenced by the amount of money available and by its purchasing power.

3. The monetary value of housing changes as the relationship between supply and demand changes.
4. The costs of dwellings vary according to structural design, construction standards and codes, methods and materials used, locality, age of the structure, and condition of repair.

5. Using resources such as time, energy, and money for obtaining housing, furnishings, and equipment requires giving up the use of these resources for other purposes.

6. The willingness and ability of individual family members to do some of the construction of the dwelling and its contents and to do some of the maintenance of the property are means of extending the family income.

7. Factors involved in the total cost of home ownership depends on the sale price; on whether housing is bought for cash and/or credit; the size and terms of loan, if any; taxes; insurance; closing costs; depreciation; and maintenance.

8. Understanding of financing procedures and costs provides a basis for rational decisions in obtaining housing.

9. Financing policies and practices affect the quality of the physical characteristics of the house, its design, materials and construction.

10. The cost of credit for housing is affected by the rate of interest and the length of the amortization period.

11. The terms of mortgages vary among various types of lending institutions as to the maximum amount that can be borrowed, tenure of the mortgage, and rate of interest.

12. The amount and kind of housing insurance purchased is influenced by the need, income, value of the house, nature of the housing mortgage, and cost of the insurance.

13. The consumer's selection of housing, furnishings, and equipment affects marketing and production practices.

14. The cost of using major equipment includes the original purchase price, the cost of installation, operation, maintenance, and repair, and the loss of interest on money if invested.

E. Furnishing and Equipping

1. Furnishings and equipment are means by which man adapts housing structures to his private use.

2. Family composition, values, goals, standards, patterns of living, and available funds and space influence the
kind and quantity of furniture and equipment acquired by an individual or family.

3. The selection and arrangement of interior furnishings are based on needs, personal preferences, and the individual's concept of design.

4. Aesthetic satisfaction in home furnishings requires consideration of personal values, interests and concept of design.

5. Homemaking tasks are facilitated by equipment appropriate for the individual or family and installed or stored for maximum convenience.

6. Well-based decisions in the selection, use, and care of equipment and furnishings are dependent upon the user's being informed of new products and changes in design, materials, and construction.

7. Decisions to buy, make, or remodel furniture, draperies, or floor covering depend upon one's interest and available human and material resources.

8. Efficiency in equipment is affected by the design, construction materials, installation, suitability for the job, and maintenance of the equipment, and the skill with which it is operated.

9. Returns from an investment in equipment depend upon its appropriateness for the purpose(s) to be achieved, the skill and frequency with which it is used, the efficiency of its operation, and the utilization of its special features.

10. The purchase of equipment of an established brand from a reputable dealer increases the possibility of dependable servicing.

11. An understanding of the meaning and the reliability of available seals is useful in buying equipment.

12. The frequency with which the equipment is used is related to convenience of storage or its arrangement in the work center.

13. The arrangement of equipment and supplies in work centers influences the expenditure of time, motion, and energy needed.
14. When safety is emphasized in the selection, placement, installation, and use of household furnishings and equipment, the possibility of physical injury to occupants and damage to property is reduced.

F. Managing

1. Management related to housing involves decisions regarding the allocation of human and material resources.

2. Housing is a resource used in attaining individual and family goals.

3. The extent to which an individual or family can satisfy housing wants and needs depends upon available income and its purchasing power and ability to manage resources.

4. Private and governmental agencies, mass media, and educational institutions are sources of information and assistance for the selection, use, and care of housing, furnishings, and equipment.

5. Planning functional work areas involves decisions on the amount of space needed, according to the characteristics of the individual(s) who will perform the tasks, and decisions on the organization of the equipment and supplies.

6. The arrangement of the work areas affects the organization and direction of work, the methods used and efficiency in the performance of activities.

7. Counter space between work areas helps reduce steps by providing a stacking, loading, and holding zone.

G. Maintaining

1. Public and private maintenance of individual and public sites affects the beauty, safety, and economic value of property.

2. A knowledge of the characteristics of materials used in construction is valuable in the use and care of equipment and furnishings.

3. The proper use and care of furnishings and equipment reduce maintenance and repair costs.

4. The safety of housing is influenced by its construction and maintenance of materials.

(April 1965)
Chapter IV.

USING THE CONCEPTUAL FRAMEWORK AND GENERALIZATIONS IN THE TEACHING-LEARNING PROCESS

During the past several years in a series of curriculum workshops sponsored by the University of Nevada and the Nevada State Division of Vocational Education, Nevada homemaking teachers have developed a series of curriculum guides using concepts and generalizations developed in the workshops sponsored by the U. S. Office of Education in its Secondary School Curriculum Project.

Since curriculum guides using the concept approach are not yet available in some areas of home economics, homemaking teachers may find the steps as outlined below of some help as they plan to use the concept method of teaching.

STEP 1.

In preplanning for teaching an area of the home economics curriculum, a teacher needs first to think of her objectives. What is the student like? What developmental tasks is she facing? What needs are apparent through observation, pupil-teacher planning, a study of the community or a study of the needs of society? In this preliminary planning, a teacher will find it helpful to study the conceptual framework and generalizations of the area, to refer to State or County curriculum guides for suggestions as to what may be appropriate to teach at that level, and to make some preliminary decisions as to appropriate objectives or desired outcomes for the unit.

STEP 2.

Decide on the major concepts and generalizations for the unit. For example, in a unit on housing at the Homemaking I. level in the Nevada State Curriculum Guide, the following concepts and generalizations were chosen for development.

**Concept 1. Influence of housing on people**

*Generalization:* The use of color in a home is decorative and has a psychological effect.

**Concept 2. Factors influencing the form and use of housing**

*Generalization:* Man consciously or unconsciously expresses his values through housing.

**Concept 3. Processes in providing housing**

*Generalization 1:* The selection and arrangement of interior furnishings are based on needs, personal preferences and the individual's concept of design.

*Sub-Generalization:* The choice and placement of accessories for the purpose of personalizing and beautifying the interior are influenced by such factors as types of furnishings, space, use, elements and principles of design.
Sub-Generalization: Making or improvising furniture or furnishings provides opportunities for creative expression, developing family interests and stretching the family budget.

Generalization 2: Homemaking tasks are facilitated by equipment appropriate for the individual or family and installed or stored for maximum convenience.

Sub-Generalization: The amount, kind and location of storage needed depends upon the possessions and activities of the individual or family.

STEP 3.

Once a decision has been made concerning the major concepts and generalizations for a unit, the planning for learning activities can begin. For each generalization selected, the teacher may select one or more appropriate desired outcomes, select appropriate text and reference materials, consider facts and background materials students need to know, and plan learning activities which will help students to arrive at the generalization.

EXAMPLE OF TEACHING PLAN

Generalization: Making or improvising furniture or furnishings provides opportunities for creative expression, developing family interests and stretching the family budget.

Desired Outcome: Becomes aware of values in making or improvising furniture or furnishings.

References:

The Home and Its Furnishings, Chapter 7.
Adventuring in Homemaking, Book I, Chapter 5.
Experiences in Homemaking, Chapter 17, Unit 5.
Homemaking for Teenagers, Book I, Chapter 4.
The Seventeen Book of Decorating, Chapter 8.
My Wishbook of Home Furnishings, pp.22, 25-34.

Background Information:

1. Making something attractive out of something unlovely and inappropriate is an achievement that carries with it tremendous satisfaction for everyone who participates.

2. Ideas can save money. A little ingenuity can sometimes result in a very attractive substitute for an expensive piece of furnishing.

3. Handicrafts give a feeling of pride in workmanship. However, what you make for your home should be useful and attractive. Often the simplest things are the most beautiful.
Some things that can be made for a bedroom are:

- Bookshelves, made from boards and a few bricks, glass or concrete blocks.
- Dressing table, made from orange crates or unpainted chests connected with a board or plate glass.
- A bench or stool, made from an inverted nail keg, an old round piano stool or a low chair with a back removed.
- Drawer dividers.
- Closet accessories.
- Curtains and bedspreads.

Learning Experiences:

1. Visit homes where family members have improvised or made furnishings. Ask family members to describe satisfactions they received or listen for expressions of satisfactions.

2. Ask class members to describe projects which their family members have created.

3. Read references on do-it-yourself projects.

4. Plan and carry out a project for the homemaking department or for your own home.

5. As a home experience, make something for your own home.

Summary Questions to help students formulate generalizations in their own words:

1. What were the big ideas we have been discussing during the past few days?

2. What discoveries have we made as we visited homes where families have created things for their homes, or as we have read about ideas for do-it-yourself projects, or as we have actually created something ourselves?

3. How might you apply these ideas in a new situation?

4. What are the basic ideas we can formulate out of this?

Dr. Barbara Osborn, Associate Professor of Home Economics Education, University of Connecticut, gave these suggestions for teachers to use as guidelines for teaching students to generalize:

1. After selecting concepts, guide the thinking of students through asking questions; guide the students to locate, interpret and evaluate supporting facts; use a variety of experiences.

2. Lead students to point out the differences and similarities among the factors in a situation and to begin to draw conclusions.

3. Ask students to state conclusions orally or in writing of complete sentences. This enables the teacher to discover mistaken ideas and re-teach if necessary. These first conclusions should be tentative since generalizations must be based on many experiences.

4. If students have misconceptions, plan and present additional experiences to clarify the concept.

5. Ask for conclusions of students and accept the kind of statements that students are ready to make. They may not be able to generalize as broadly as you had anticipated and may state generalizations very differently than you did when planning. It is important to recognize when they are saying the same thing though using different words and to accept their first attempts at stating generalizations.

6. Plan further experiences in applying the generalizations. This will increase the understanding of them and develop ability to use them.

Dr. Osborn has also suggested that teachers use the following criteria to evaluate the generalizations they select in curriculum planning:

-- Is the generalization needed for solution of problems important to the student? Will it lead to insights in dealing with new problems?
-- Is the student ready for the generalization? Has he had meaningful experiences from which to generalize?
-- Is the generalization based on objective data or theory accepted by specialists in the field?
-- Is there a reasonable possibility of developing the generalization through experiences in high school home economics?
-- Is the generalization necessary for further growth in ability to think in the area?

Remember that concepts grow out of experience in pursuit of a problem or purpose of some sort. The school, therefore, must provide many and varied experiences. Opportunities for observation, handling, experimentation, and discovery are necessary.

Concepts are not achieved quickly nor at a given time. They are never fixed or final. Levels are to be discerned. The process goes on continuously. Concepts are achieved ordinarily through an active, dynamic process, not through a formal or so-called "logical" process (except with very well-informed, mature learners).

Concepts to be developed should be carefully selected and then presented through many and varied learning experiences.

Burton, Kimball and Wing2 in "Education for Effective Thinking" have given some suggestions for teaching which will help students develop an understanding of concepts. They remind teachers of the importance of learners being provided with as rich and varied environments as circumstances will permit. The school must often compensate for a meager neighborhood environment.

This means that learning situations and activities should be provided to make it possible for learners to come into contact with numerous and vivid, clear-cut examples of things, persons, processes and relationships for which concepts are being achieved. The examples of things, processes, and relationships should be met as far as possible through direct experience. Direct experience (field trips, for example) should be supplemented by vicarious experience obtained by means of motion pictures, radio and television programs, dramatizations, lectures, pageants, and many types of printed materials.

Learners should be stimulated to reflect upon and to analyze experiences, illustrations, meanings, and the process of developing concepts. Reflection and analysis are almost certain to result if the learning situations are life-like and meaningful to the learners.

Learners should be encouraged to state their understanding (meaning growing into concept) in simple everyday terms, as far as possible. This is a simple direct test for the possession of meaning; a verbalist cannot state meanings in everyday words. Learners should be encouraged to illustrate concepts with specific situations drawn from their own experience. When a concept is difficult to put into words, students can be encouraged to demonstrate his understanding in other ways such as drawing pictures, making models, presenting dramatizations. If a student cannot express what he knows in some manner, the teacher can assume he does not know. Learners should be taught to avoid meaningless repetition of words that they have read or heard.

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APPENDIX

1. The Curriculum Challenge of Our Times
   by George W. Denemark

2. Putting Subject Matter Into Conceptual Form
   by Asahel D. Woodruff. (From Proceedings
   of the Pacific Regional Conference, Home
   Economics Education, Reno, Nevada, March 2-6,
   1964)
The Curriculum Challenge of Our Times

By George W. Denemark

Dean, School of Education, University of Wisconsin, Milwaukee; formerly Executive Secretary of the Association for Supervision and Curriculum Development, NEA.

Is it possible to combine both stability and flexibility in the modern school curriculum? Can common objectives for education be established that allow ample room for adapting learning experience to individual learners, teachers, and community settings? Can we achieve broad national commitment to certain goals in elementary and secondary education while still preserving the character of community and regional strengths? Can various subject fields and different grade levels build on each other without necessitating a tightly regimental instructional program that makes the teacher a technician rather than a professional? What can be done to provide continuity of education for the twenty per cent of our school children who are in a new school each year?

These questions represent the major dimensions of the central curriculum issue facing our schools today. The issue is not what a small group of attention-seeking writers and speakers would have us believe. It is not a choice between a standardized traditional curriculum devoted to the fundamentals and an individualized curriculum growing out of the emerging interests of each child. It is not a superficially simple either-or choice at all, for our times demand large measures of both stability and flexibility in the education of every boy and girl.

We cannot afford to choose stability or flexibility, continuity or adaptability, enduring cultural values or urgent problems of contemporary life, group welfare or individual fulfillment. Good education demands all of these components, not half of them. Today's thoughtful teachers and administrators are increasingly asking themselves how these important ingredients may best be combined in a curriculum for elementary and secondary schools.

One approach that merits careful reflection by all educators is to focus upon the identification of the fundamental principles, the broad concepts, the big ideas in the various subject fields. Closely associated with this emphasis is a growing concern for the interrelationships between fields of knowledge—linkages between fundamental ideas associated with different subjects or areas of inquiry. The combination of these approaches has much to offer those concerned with a design or rationale for modern school curriculum.

What has always been true must be obvious to all today: Teachers of a given subject cannot teach all there is to know about it. For example, the history teacher, even though he be a college professor teaching at the doctoral level, cannot deal with all of history. Drastic choices must be made between what to include and what to leave out. Nevertheless, some of us have made a futile attempt to "keep up" with the rapid pace of world events by talking faster or assigning more homework.

Such measures cannot solve the dilemma confronting today's teacher, for the curriculum sandwich is already stacked so high with miscellaneous layers of information and detail that few if any learners can manage a solid bite. The answer lies in carefully assessing all fields of study and selecting those elements of each which provide the strategic keys to an understanding of other events.

These questions should guide this process: What are the fundamental principles, the central concepts, the major ideas associated with a field of study? Which ideas are central to an understanding of the methods of inquiry unique to that field? Which ideas underlie a whole series of other ideas and are thus essential if any real understanding of that field is to come about?

Lest this approach be understood by some to mean a return to an old-fashioned, traditional curriculum, let us be clear that it implies instead revolution in the various subject fields. This revolution is already underway in certain subject fields such as mathematics, biology, physics. Fortunately, the revolution is being led by some of our most eminent scholars, for it demands that the most penetrating, searching kinds of analyses be made of each discipline for the purpose of identifying its unique structure, its basic principles, its central ideas. Classroom teachers and other curriculum workers must join with scholars and scientists in the search for these central ideas and must take the initiative in designing school curriculums that reflect and communicate them.

Discovery on the frontiers of knowledge is important in every field and important to us all, but perhaps even more important, at least at this moment in history, is the discovery of a fundamental rationale--of an organizing framework within which new knowledge can be viewed and interpreted. The best minds in each discipline must be focused on this important task.

As insight is gained into the fundamental principles of knowledge in various fields, every teacher at every grade level and in all subject fields will have the task of planning specific learning experiences that will focus on these principles in such a way as to enrich and illuminate each child's understanding and utilization of them. The task will, of course, remain a never-ending one, necessary as long as knowledge and experience expand.

Such a concept of curriculum can help teachers of all age levels and all subjects to understand the basic unity of teaching as a profession and of learning as a continuing process. Such a concept will provide continuity to education, for the most fundamental, most far-reaching principles...
will have relevance at the kindergarten level, just as they will at the graduate school level and at each school milestone along the way.

Such a concept makes it possible for a student to relate his experiences in a high-school English class to those he is having in history class. The education of the engineer or architect can be viewed not only in terms of drafting and mathematics but in terms of art and music as well, for the principles of balance and of rhythm will be seen to have application in many facets of living. The education of a skilled professional in law, medicine, engineering, or other vocational field will be perceived as having its beginnings in the grasp of fundamental principles introduced in the elementary school and continued through high school and the general education programs of college or university.

Some people might object that such a plan would result in endless, boring repetition of a narrow scope of learning in grade after grade and subject after subject. Actually, however, the range of specific content and experience is unlimited, and repetition is involved only as relationships between specific learning experiences are made clear in the process of enlarging a concept or general principle.

This does not differ from the way in which any concept is developed: through progressively widening a circle of experience by observing many areas in which an idea has application. For example, we come to a fuller understanding of the meaning of democracy as a way of life by viewing examples of democratic behavior not only in politics but also in labor-management dealings, in family relationships, in religious institutions, in teacher-pupil relationships, and the like. The concept grows beyond its political meaning as opportunities are presented to reflect on its relevance to other dimensions of human relationships.

An illustration of generalization and a possible set of related learnings may be helpful in understanding this approach to curriculum planning. One of the important ideas which many educators believe schools should help to communicate is the generalization that a person's ideas of right and wrong, of importance, of good, are heavily influenced by his social-cultural environment. In other words, what someone believes is determined in large measure by the values of his nation, church, school, and family and by other environmental influences. Such an understanding could be developed in countless ways at various ages and through many different content fields. Here are but six to serve as illustrations.

1. Soon after children enter school, a teacher might point out and discuss differences among them with respect to certain religious beliefs and practices. The discussion could touch upon the fact that some religious denominations in the United States prohibit their members from saluting the flag or repeating the Pledge of Allegiance.

2. A geography lesson in the intermediate grades focusing on a study of the West Indies might call attention to the fact that as a result of experiences under the rule of Denmark prior to World War I many Virgin Islanders today associate working in the fields, or even gardening, with inferior social status.
3. At an appropriate point in her course, a home economics teacher might call students' attention to the fact that in certain areas of the United States white eggs bring a premium price because housewives consider them better than brown ones, while in other areas exactly the reverse is true.

4. In tracing the patterns of authoritarian ideas, a high-school history class might examine how the doctrine of Aryan superiority indoctrinated in German school children during the Hitler regime led many German youth to support the persecution of minority groups in the name of patriotism.

5. A college anthropology class studying various customs of other cultures might give attention to the Kwakiutl Indians of British Columbia, who still practice a ceremony called "potlatch," in which the status of an individual is determined not by how much property he owns but rather how much he has given away.

6. In a course in tests and measurements, a college instructor might refer to a study of answers given on an intelligence test which showed that an item concerned with the musical term "sonata" resulted in unusually large differences in the per cent of correct response when analyzed according to the social-status background of the students tested.

These are six specific areas of content which might be dealt with at some point in the education of a student from kindergarten to graduate school. On the one hand, they might be viewed as six discrete learning experiences. On the other, they might be seen as illustrations of the general principle identified earlier—that a person's ideas of right and wrong, of importance, of good, are heavily influenced by his social-cultural environment.

For the most part, the importance of the specific knowledge associated with each separate illustration is slight, but the importance of the generalization toward which they all point is tremendous and pervasive. The student who truly grasps this generalization will have learned a fundamental lesson applicable to a wide range of personal and societal relationships.

It is easy to see in these illustrations that the particular facts chosen are not critical to the major learning involved. True, they must be relevant and sufficiently unambiguous to prevent confusing the learner. Which illustrations are used, however, will vary—must vary—according to a number of significant variables in the learning situation. Deciding factors may be the interests of the particular children in the class; the background and experience of the teacher; the nature of the community and the cultural background and ethnic composition of its members; the books, films, field trips, and other learning resources that are available; or significant events in the news. All of these and more represent important variables in the teaching-learning situation that might cause a teacher to employ one content rather than another as the basis for communicating a generalization to his students.
The teacher who had traveled in Mexico rather than in the Virgin Islands might wish to see cultural patterns of that nation as a basis for building understanding of the link between personal values and cultural patterns. The interests of some children in explorers or scientists might cause a teacher to cast her illustrations in those areas. Teaching in a culturally deprived section of Chicago populated by recent immigrants from many cultures would perhaps suggest a different set of illustrations than would teaching in one of the fashionable, culturally homogeneous suburbs of that same city.

This approach to teaching calls for flexibility, imagination, and creativity. It calls for as many differentiated educational activities as there are varying combinations of pupil interests, teacher competencies, community resources, and world problems. It rules out use of a single textbook, courses of study repeated dully year after year, dusty specimen exhibits dragged out annually and single standards of achievement enforced uncritically throughout entire communities and states. It offers countless opportunities for individual teachers and school faculties to design learning experiences that truly fit the learner and the community. Teaching will be exciting to teachers as they assume creative roles in selecting and ordering the content which fits the unique combination of factors composing a particular teaching-learning situation.

In large measure the quality of American education depends upon the extent to which we are able to conceive of a bold new design for the curriculum. The design must include common commitment to a new set of "fundamentals" derived from rigorous analysis of every field of knowledge. It must also include granting each teacher expanded flexibility to select and choose the specifics best suited to the unique combination of conditions for learning. Achieving the proper balance of stability and flexibility in the curriculum is the challenge of our times for education.
1. **THE COGNITIVE CYCLE IN BEHAVIOR AND LEARNING**

Cognitive processes operate in a learning-behaving cycle, a model of which is useful in discussing teaching processes and materials. See attached figure.

2. **SOME DIFFERENT FORMS OF CONCEPTUAL ELEMENTS IN THE LEARNING-BEHAVING CYCLE**

<table>
<thead>
<tr>
<th>PERCEPTS</th>
<th>Concepts</th>
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<tbody>
<tr>
<td>(The sensory beginnings of concepts)</td>
<td>(Organized perceptions; the raw material from which decisions and behavior are produced)</td>
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Of Processes
Of Structures
Of Qualities

Derivations from conceptual knowledge:
- Topical organization of knowledge for "filing" purposes
- Items of information (verbal form) related to concepts
- Definitions of terms

Conclusions (Part of the process of decision-making when one is seeking a line of action in a situation that requires an adjustive act)

Derivations from conclusions:
- Admonitions (Recommendations to others based on previously reached conclusions)

3. **REQUIREMENTS FOR CULTIVATING INDIVIDUAL DECISION-MAKING BEHAVIOR**

If a learner acts on another person's decisions, he does not know how, or learn how, to make his own decisions. He learns only to carry out specific acts in specific situations. (Following procedures)

If we wish to affect his behavior through his own knowledge, we must cultivate his own decision-making processes. This requires that we stop giving him the end products of another person's decisions (conclusions or admonitions), and give him the concepts with which he can make his own decisions.

4. **THE NATURE OF A CONCEPT**

Definition:
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 meaning 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 and complex level it is a
synthesis of a number of conclusions he has drawn about his experience
with particular things.

Its importance:
Human beings make their decisions, and take their actions on the basis
of their concepts about their environment and the particular parts of it
which make up a person's situation at any one time. Concepts are the
internally lodged elements that determine how a person will react to
a particular stimulus situation. People's lives are lived in accordance
with their concepts, insofar as they are able to carry out their wishes
and intentions.

A Conceptual Statement:
A description of the properties of a process, structure, or quality,
stated in a form which indicates what has to be demonstrated or
portrayed so a learner can perceive the process, structure, or
quality for himself.

Kinds and Examples of Conceptual Statements:
Process Concepts
A concept of a process, event, or behavior, and the
consequences it produces when it occurs. A statement
of this kind should take this form:

When
this event(s) occur(s) it will tend to produce this result
or process(es) behavior(s) they these feelings
these circumstance(s) exist(s) these conditions
these quality(ies) structure(s) these reactions

e.g.
When dissipative forces are increased, matter tends toward the gaseous state.

When individual politicians with similar goals organize themselves for political purposes, they
become much more effective in achieving their goals.

Structural Concepts
A concept of an object or structure of some kind. e.g. a physical
object, a chemical structure, or a geographical unit. A state-
ment of this kind should take this form:
Electrons exist in more or less concentric electron shells surrounding a nucleus.

Atomic crystals consist of atoms in a regular arrangement.

Amorphous solids are composed usually of large, long chain molecules which are entangled with each other.

Cherryvalé's business district is three blocks long and one block wide.

**Concepts of Qualities**

A quality is a property of an object or process and has no independent existence. Nevertheless, we speak of qualities as if they had independent existence, by abstracting them, or taking them out of the objects or processes in which they are found and treating them in the abstract.

However, qualities operate in our thinking in the same way as structures and processes. We see them as structural entities, or we see them as processes having certain effects. "Square" is an abstract structural concept. "Kind" is an abstract process concept.

A concept of a quality will therefore take the same form as any structural or process concept.

e.g. (Structural)
A square has (or squareness is having) four sides of equal length which are connected by right angles.

(Process)
Speed causes accidents.
When people are honest (fulfill obligations and honor the rights of others) security is increased for all.
Quasi-Concepts and Statements

Many conclusions that have been reached by people are put in less than complete form, and lack something of helping a reader come to an understanding of life, offering him instead the judgment of another without substantiating data. In contrast, a fully stated concept supplies the data on which a conclusion is based, and permits a person to examine the evidence for himself. Hence, it offers the possibility of more complete comprehension, and the freedom of individual acceptance or rejection of the conclusion.

Statements of believed or established fact have the nature of "information" but they do not in and of themselves play a central role in the decision-making process. In order to become useful in that manner, they must be turned by the listener into his own concepts, or complete thoughts about a process, a structure, or a quality. This is usually difficult for him to do because he lacks the perceptual background. Examples of conclusions, which are quasi-conceptual statements are:

- A aerica is a haven for the oppressed.
- Truth is beauty.
- Religion is a force for good in human life.

Conclusions lead to the formation of admonitions, which are often offered to students as subject matter. Examples are:

- Oppressed people ought to go to America.
- Everyone should be truthful.
- Religion should be encouraged.
- Our natural resources ought to be protected.
- Farmers should plow along contour lines.

5. PUTTING SUBJECT MATTER INTO CONCEPTUAL FORM

a. Be sure the author's conclusion or admonition is stated concisely and clearly so his intent and meaning are clear.

b. Find the events, of which the writer was aware, that led him to reach the conclusion. Cite the events, and the consequences. Put them into an if...then form, as a process concept.

c. If the subject matter consists of information, that is, data in verbal or symbolic form, three possibilities exist:

   (1) Have the students memorize it.

   (2) Recast it in conceptual form, as a concept of structure, or process, or quality.

   (3) Ignore it.
Much information, when it is directly related to a useful concept, is itself useful even in verbal form, and justifies memorization. To put it into conceptual form and teach it as concepts is time consuming. If its usefulness can be realized in verbal form, and if concepts of the verbal information are of marginal value, the time and labor to recast the materials is not justified. Information which is not directly related to some useful concept is not worth memorizing.
The Cognitive Cycle in Behavior and Learning, with Forms of Conceptual Elements Located in Relation to the Decision-Making Process