

AN ECOLOGICAL SYSTEMS FRAMEWORK
FOR HOME ECONOMICS/HUMAN
ECOLOGY: THE LINKAGE OF
ENVIRONMENT, ENERGY AND ORGANISM
AS FAMILY

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This is to certify that the

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ABSTRACT

AN ECOLOGICAL SYSTEMS FRAMEWORK FOR HOME ECONOMICS/HUMAN ECOLOGY: THE LINKAGE OF ENVIRONMENT, ENERGY AND ORGANISM AS FAMILY

by

Eleanore Lund Vaines

Home Economics/Human Ecology from its formal beginnings at the Lake Placid Conferences has evolved conceptual frameworks to clarify the central focus of the discipline (Lake Placid Conferences on Home Economics, 1899-1909). To date some of these conceptual schemes have been implied and some have been abductive in nature (New Directions, 1959; Brown, 1967b and 1970; Quilling, 1970; Schlater, 1970; Lake Placid Conferences on Home Economics, 1973). Quilling has noted that Home Economics/Human Ecology in the seventies have reached an evolutionary point where they must consolidate knowledge and theory for the sake of clarity and " . . . reveal concrete directional tendencies and needs for the time, chart a course of action that is grounded in realism, based on logic and founded upon principles that can serve as practical guides" (Quilling, 1970, p. 258).

The objectives of this study were as follows: 1) Through a review of historical documents about the field, to define the evolution of the central focus of the discipline of Home Economics/Human

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Ecology. 2) To define the need for making the central focus more explicit and precise as well as one of the contemporary issues facing the field. 3) To clarify some of the changes that are presently taking place in Home Economics/Human Ecology in higher education. 4) Given a synthesis of the literature from objectives one through three which trace over time the development of the central focus of the discipline, to integrate this with a scientific revolution to propose the next stage in the evolution as an explicit deductive macro-map, referred to in this study as the Ecological Systems Framework (ESF). 5) To identify some reactions to the proposed ESF from the population of administrators of units of higher education of Home Economics/Human Ecology. 6) And to clarify how the ESF can be used as a tool.

The overall design of the study was planned as a means of fulfilling the objectives. The strategy was as follows:

1. To establish the need for this study two general sources of information were investigated. A review of some historical documents about the field was conducted. And from a limited sample of documents gathered from administrative units of Home Economics/Human Ecology in higher education, a content analysis was done to determine some of the organizational and name changes which are taking place.
2. These materials were synthesized along with information about a scientific revolution: General Systems Theory

applied to the Ecological Systems Approach. The proposed Ecological Systems Framework and a series of related propositions, were derived from all of these sources. The ESF is a deductive comprehension, therefore, of the central focus of Home Economics/Human Ecology.

3. A survey of all the administrators of units identified as Home Economics/Human Ecology was conducted to ascertain some reactions to the proposed ESF. The population reviewed a thirteen page Ecological Systems Framework Opinionnaire Packet and responded to a three page structured opinionnaire.
4. As a result of the data, refinements were made in the ESF and guidelines to use the ESF as a tool were developed.

The ESF as proposed is an open system and an organizational representation of Level I of the intellectual hierarchy. It is a development that has the potential to be used as a tool to guide the growth of the dimensions of Level II of the intellectual hierarchy identified as a system of the field's philosophy, research, theory, curriculum and practice (Brown, 1967b; Blackburn, 1973). The ultimate goal is to define the organic whole of the central focus of the discipline in more precise and explicit ways which includes the qualitative and quantitative aspects.

The major findings of the study were as follows:

- The profession of Home Economics/Human Ecology is changing.
- There is a need to make the central focus of the discipline more precise and explicit.
- There is a need to move the comprehension of the central focus from abductive statements to deductive and then to inductive scholarly activities.
- The Ecological Systems Framework is proposed as one feasible abstracted deductive conceptual framework that reflects the central focus of the discipline. It has the potential to be used as a tool to guide the profession to systematically develop its scholarly base.
- There is a need to clarify the operational and theoretical definitions that the applied science of Home Economics/Human Ecology uses to describe its central focus.
- The reaction of the approximately 44% or 128 members of the population of administrators of units of Home Economics/Human Ecology in higher education who responded to the Ecological Systems Framework Opinionnaire Packet's structured opinionnaire ranged from 22% to 40% agreement on the sixteen statements. Agreement implied that the ESF reflects to some degree the central focus of the discipline and the ESF has potential to be a useful tool.

Implications drawn from this study suggest that the value of the applied science of Home Economics/Human Ecology as a helping profession depends to a degree on the development of the central focus of the discipline as explicit statements and models on which the field is organized. Because the field is changing, there is an urgency to consolidate the related internal and external components of the system into an organic whole and to identify these concerns as ongoing priorities to which the profession needs to invest human and material resources. If the central focus of the discipline is systematically developed the following outcomes can be predicted:

- 1) The central focus of the discipline can be deductively and inductively explored and defined in precise qualitative and quantitative terms.
- 2) The theoretical and operational symbol language of the profession can be defined and used more consistently.
- 3) The organic whole of Home Economics/Human Ecology can be congruently implemented.
- 4) The consensus of the profession's social system can be systematically tapped.
- 5) And as a result, the total resource bank of the profession can be better directed towards the growth and maturation of all of the facets of this applied science.

Home Economics/Human Ecology over time has demonstrated its commitment to serving the individual and family in the near environment. The practical strengths of the profession which were again clarified by this study, makes the urgency of attending to the development of the discipline's scholarly base a commitment to which the field needs to attend to assure a continued strong and growing future.

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LINKAGE OF ENVIRONMENT, ENERGY
AND ORGANISM AS FAMILY

By

Eleanore Lund Vaines

A DISSERTATION

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GLOSSARY OF TERMS

GLOSSARY OF TERMS

<u>Abductive</u>	A syllogism or deductive reasoning whose major premise is certain but whose minor premise is probable.
<u>Anomie</u>	Processes of disorganization and disintegration of structures. (Buckley, 1967, p. 33)
<u>Biosphere</u>	The envelope made up of the earth's waters, land crust and atmosphere where all organisms including man, live.
<u>Biota</u>	All living organisms, both plant and animal, of a region or period.
<u>Boundary</u>	The boundary of a system is that region which separates one region from another. Components within the boundary can be distinguished from components that are outside the boundary.
<u>Closed system</u>	A system that rejects any form of energy from the external environment. In terms of human behavior a "closed" system may not reject energy from the external world but may filter or

distort the incoming matter-energy and information. There are degrees of openness and closedness in any given system and at different times.

Communication

A complex phenomenon defined through the following sequence:

- a. Matter energy: The relativistic concept that all forms of matter and energy are really the same phenomenon with the apparent differences attributable to the nature of the sense organs of the perceiver, rather than to the nature of the energy form.
- b. Information (technical sense): The patterned structure of matter-energy.
- c. Communication: Information (pattern) for which the receiver and the sender share a common experience with respect to the information. "Airplane" defines a fairly common referent situation in western society, "aoogk" is not.
- d. Information (communication sense): Patterned matter-energy for which there is a common referent experience, and an agreement that the information regularly denotes the same referent object or experience, with

the additional provision that there is a corresponding reduction of uncertainty about the state of the perceiver's world.

Communication may . . . be conceived as the dynamic process underlying the existence, growth, change, the behavior of all living systems--individual and organizations. Communication can be understood as the indispensable function of people and organization through which the organization or the organism relates itself to its environment, and its parts and its processes one to the other.

Communication is fundamental to the living system--the individual or the organization--as is ingestion and consumption of "food" and "fuel" to run its physical and physiological machinery. (Thayer, 1968, p. 17)

Concept

A generalized cognitive notion. Concepts are regarded as abstractions from perceptual experiences linked by a single common factor, though it is not established beyond doubt that they originate in this way.

Constraint

To repress or restrain.

Consumers

Agents which use particular matter-energy forms in order to achieve particular goals.

There is no longer an "away." One person's trash basket is another's living space . . . there are no consumers--only users. The user employs the product, sometimes changes it in form, but does not consume it--he just discards it. Discard creates residues that pollute at an increasing cost to the consumer and to his community. (Hook and Paolucci, 1970, p. 317)

<u>Cope</u>	Behavior in a purposeful problem solving manner.
<u>Cost</u>	The satisfaction or goods denied in the course of achieving or acquiring other goods or satisfactions.
<u>Curriculum</u>	The experiences a learner has under the guidance of an educational institution. It is a systematic arrangement of certain courses designed for certain students for defined purposes.
<u>Cybernetics</u>	The study of feedback and control; how systems maintain equilibrium through homeostasis or equifinality.
<u>Deductive</u>	Reasoning from a known principle to an unknown, from the general to the specific, or from a premise to a logical conclusion, also a conclusion so deduced. (SEE: Abductive and inductive)
<u>Discipline</u>	A branch of instruction or learning based on a body of theory.
<u>Ecological Systems Approach</u>	This approach is the application of General Systems Theory to studying the human organism, populations of human organism as environment, and in relation to the natural and man-made environment.

Ecology

The study of the relation of organisms or groups of organisms and their environment. The term "ecology" refers to patterns of nutrients and informational relationships among organisms of a certain given ecosystem.

Ecosystem

A set of mutually interdependent organisms and their environment, whose mutual existence depends upon the presence of each other.

. . . a group of living organisms that are related to each other by their common access to some particular, well-defined energy flow (such as sunlight, which falls on an entire watershed, or the flow of food through the digestive tract, in the case of the intestinal ecosystem) and by their participation in a web of nutrient and informational flows. (Blackburn, 1973, p. 1142)

. . . refers to a community together with its habitat . . . is an aggregation of associated species of plants and animals together with the physical features of their habitat . . . (it is) any size or ecologic rank . . . the concept . . . emphasizes the interrelations between the group or organism that form a community and . . . its environment. (Hook and Paolucci, 1970, p. 315)

Emergents

SEE Synergy

Energy

It is the interface and vitality of all living systems. The ultimate source of energy is the Sun. Energy can be defined in two broad categories: Matter-energy and information. (SEE Communication) Energy is related to human

organizations: 1) Human organisms are converters of energy and 2) an organization is an ordering of energy.

Energy cycle

The process by which the energy of the sun is passed from one living organism to another or is stored, as in coal or oil.

Entropy

The opposite of information in the technical sense. If information is pattern or order, then entropy is the corresponding amount of randomness or disorder.

Environment

The aggregate of surrounding things or conditions that surround a designated ecosystem; the totality of external influences on an organism. The near environment are those conditions that are closest to the organism and therefore tend to have a more immediate daily effect. The distal environment is linked to the near environment and in an abstract sense forms concentric circles around it.

Equifinality

The process by which an organism, family, or community alters its internal structure and processing or coping style in order to accommodate to a new condition in the environment.

Open systems where the same final state may be reached from different initial conditions and in different ways is a characteristic that is termed equifinality.

Equilibrium

An arbitrarily defined point or condition about which an organism (or organism as family or community) maintains a steady state.

Exchange

One of two parties provide some good(s) to the other. (SEE Transaction)

Externalities

Matter-energy which has arbitrarily been defined outside of a system of interest in order to gain some particular convenience or advantage (e.g. children may be defined as externalities for the purpose of studying particular kinds of parent behaviors).

Family
(Organism as)

It is a system of individual organisms that is a complex organization with a history and rules. It is, therefore, an identifiable unit of interacting organisms with some common goals, commitment over time and the sharing of resources and living space in an ecosystem. The ecosystem mediates between the organism as family, the near environment and the larger society.

A simple approach to viewing the family as an ecosystem is to consider energy flows. Adams has listed two major ways in which energy is related to human organizations: 1) an organization is an ordering of energy and 2) human organizations are converters of energy. (Hook and Paolucci, 1970)

Feedback

Used here in the communication sense, as information returned to the sender of a message about the effect of the original communication. There are two kinds of feedback: Positive and Negative. (SEE Morphogenesis and Morphostasis)

- a) Positive feedback: Positive feedback produces unstable behavior in the perturbations from the norm and can eventually result in collapse of the system. The effect of information returned which causes amplification of the original behavior so that it occurs more often or in larger amounts. Excessive positive feedback: The system comes to respond in a wild and unpredictable manner.
- b) Negative feedback: Negative feedback results in stable behavior, but little growth. The effect of information returned which causes a reduction of the original behavior. Note: A technical term, not a synonym for criticism. Excessive negative feedback: The

system comes to behave as a closed system by appearing to reject external data.

Function

The purposes or consequences of the existence or operation of a unit for other units in a system or for the system as a whole. Berlo proposes three functions of communication:

- 1) production--getting the job done,
- 2) innovation--exploring new alternatives,
- and 3) maintenance--keeping the system and its components operating. (Berlo, 1970, pp. 9-11)

General Systems Theory

The study of systems for the purpose of identifying commonalities of systems found in different applications. A science of organizing and organization.

"Good"

Any external thing that has utility.

Heuristic view

Serving to discover or reveal with the connotation of self-discovery. It emphasizes theory and interconnected conceptual schemata that are fruitful for further research. (Kerlinger, 1964, p. 9)

History

One of the three primary aspects of systems.

(SEE Structure and Process)

History is more than the passage of time. It involves also the accumulation in the system of residues or effects of past events (structural changes, memories, and learned habits). A living system carries its history with it in the form of altered structure and consequently

of altered function. There is a circular relation among the three primary aspects of systems--structure changes momentarily with functioning, but when such change is so great that it is essentially irreversible, a historical process has occurred, giving rise to a new structure. (J. G. Miller, 1971, p. 284)

Home Economics

. . . is the study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study specially of the relation between those two factors. (Lake Placid Conferences on Home Economics, 1902, pp. 70-71)

Home Economics is the study of the human and material forces affecting homes and families and the utilization of this knowledge for the benefit of mankind. (Byrd, 1970, p. 414)

. . . home economics is the study of man as a total being, his near environment, and the interaction between them. (Creekmore, 1968, p. 95)

(The goal of home economics) . . . controlling certain aspects of the environment for the welfare of mankind (Brown, 1967, p. 772)

Household Unit

A production and process unit.

Human Ecology

Human Ecology is,

. . . a search for understanding and controlling the mutually sustaining relationships that couple man and his environment. (Hook and Paolucci, 1970, p. 316)

The term connotes a complex conceptual systems framework. The focus of the framework is the organism as family in the near environment with the interface of energy. It represents a whole

system of parts which is greater than the sum of the parts. The mission or goal of Human Ecology is to serve the organism as family to the ends of improving the quantitative and qualitative aspects of their ecosystem.

Inductive

Reasoning from particular facts or individual cases to a general conclusion; also a conclusion reached by such reasoning. (Kerlinger, 1964, pp. 14-15) (SEE Abductive and Deductive)

Information

. . . consider the movement of energy in a system . . . and that "energy" being moved can be exemplified by sound or light waves . . . or by some material equivalent, such as the printed message. As energy moves within the system, some of it may exhibit patterning; the remainder--that which is not patterned--is labeled "noise." Only when the system's members perceive the patterning is "information" possible Over time it is possible to specify how likely any given pattern is or what other patterns it occurs in conjunction with, and so on. This definition of information is highly dependent on the perceptual processes of the human observer. (J. G. Miller, 1965)

Information may be: 1) environment, 2) instruction, and/or 3) motivational. (Berlo, 1970)

Information Processing

From the information processing viewpoint, the essence of the organism's interaction with the world is the identification and acquisition of potentially useful stimuli, the translation and transformation of the information received into meaningful patterns, and the use of these patterns in choosing an optimal response. (Schroder and Suedfeld, 1971, p. 3)

Input

What is fed into a system.

<u>Institutionalized</u>	. . . they involve complex interpersonal, and often highly organized, networks of expectations, communications, normative interpretations, interests, and beliefs, embedded in the same socio-cultural matrix as are "legitimized" structures. (Buckley, 1967, p. 161)
<u>Interaction</u>	To act on one another; act reciprocally.
<u>Interdependence</u>	Mutually dependent.
<u>Interface</u>	In the context of this study I am using the term to imply a relationship between two living systems that is an abstracted space relationship greater than linkage. Interface is essential to the vitality of the two interacting open systems.
<u>Interrelationship</u>	Mutual relationship; interconnection.
<u>Level of analysis</u>	SEE Systems Level
<u>Linkage</u>	A term used to indicate that two or more systems are connected to form a greater system; it suggests a regularized pattern of interaction between the two systems which in a sense forms a bond between them.
<u>Metabolism</u>	Open systems exist through continual exchanges with the environment. They maintain themselves through a continual inflow and outflow, a

building up and breaking down of components. The process is known as metabolism. Two types of metabolism are basic to the functioning of all living systems: The metabolism of matter-energy and the metabolism of information. Living systems organize themselves only in and through these two processes. Some processes also involve both together.

Morphogenic and Morphostasis

. . . modern science has shifted from concern for relatively stable substance and "qualities" to analysis of a more shifting structure in the relations of parts, we focus on the particularly fluid nature of the structure of . . . systems and the thin conceptual line between this "structure" and what is called "process." The perspectives of information theory and cybernetics on structure and process are investigated in conjunction with an attempt to sketch the foundations for a generalized model of the morphogenic or structure-elaborating process seen to operate in complex adaptive systems, starting with conceptualization of the "act" and the basic interaction process. (Buckley, 1967, p. 5)

Since its inception, cybernetics was more or less identified as a science of self-regulating . . . systems. Thermostats, physiological regulation of body temperature, automatic steering devices, economic and political processes were studied under a general mathematical model of deviation-counteracting feedback networks.

By focusing on the deviation-counteracting aspects . . . cyberneticians paid less attention to the systems in which the effects are deviation-amplifying. Such systems are ubiquitous: accumulation of capital in industry, evolution of living organisms, the rise of

cultures of various types, interpersonal process that are loosely termed as "vicious circles" and "compound interests" (Maruyama, 1963, p. 164)

Maruyama (1960 and 1963) termed these deviation-counteracting (negative) feedback processes,

morphostasis. Deviation-amplifying (positive) feedback processes, he termed morphogenesis.

These concepts differ from the less complex notions of negative and positive feedback processes in that Maruyama's terms describe relationships which are mutually causal rather than one way.

Multifinality

The option of moving from a given state to any one of a number of alternative possible states.

Normative

What ought to be.

Niche

- a) A particular role of an individual organism in its community and its environment, including its position in the food cycle, its behavior and so forth.
- b) The specific space occupied by an organism within its ecosystem.

Open system

A system so structured so that there is an unimpeded flow of energy forms into, and out of the

system. The energy can be in the form of matter-energy or information.

. . . complex adaptive systems are open systems in intimate interchange with an environment characterized by a great deal of shifting variety and its constraints. (Buckley, 1968, p. 509)

The typical response of open systems to environment intrusions is elaboration or change of their structure to a higher or more complex level. Thus the environmental interchange is not and does not long remain random or unstructured but rather becomes selective due to the mapping or coding or information-processing capabilities inherent in an open system. As the system becomes more involved in wider interchanges between the organism and the environment the system becomes more complex. This is a selective process involving the psychological dimensions of selective exposure, selective perception and selective retention. Open systems are "negentropic"--tend to decrease in entropy and tend to become more elaborate in structure. (Buckley, 1967, pp. 50-51)

Organism

The human organism or human level (versus animal or insect levels) is a unique organized complex of properties and functions. The human system has properties and functions that are determined not only by the properties and relations of its individual parts, but by the character of the whole which they compose and by relations of the parts to the whole. (SEE Systems Level and Synergy)

Organization

Includes the following five elements:

- 1) Two or more individuals,
- 2) who recognize that certain goals can be better achieved through interdependent rather than individual action;
- 3) take in information and/or material from the larger environment;
- 4) operate on them in some fashion and
- 5) return the modified inputs to the environment.

All of these processes occur and relatively stable and regular patterns develop and energy patterns can be observed and predicted.
(Farace and MacDonald, 1971)

Output

The energy that comes out of a system that is usually transferred, delivered, or altered, the act of producing.

Philosophy

The critical study of the basic principles and concepts of a particular branch of knowledge; a system of principles for guidance in practical affairs. Tends to be qualitative and concerned with ends.

Practice (Technology and Craftsmanship)

The use and production of technical knowledge which will enable the home economics profession to:

- . . . 1) diagnose intelligently the needs of mankind relevant to our professional goal and
2) to use techniques which will achieve the purpose of helping persons to control those

aspects of the environment necessary and desirable. (Brown, 1967, p. 772)

Probability Theory

In a systems context, procedure for estimating the level of certainty, information, or uncertainty (entropy) of a system in a given supra-system or environment.

Process

Never ending, never beginning, continuous through time; a series of events forming a recognizable pattern that recurs often enough so that one may observe the pattern over and over. It is one of the three primary aspects of systems. For heuristic purposes it is useful to "stop-action" of this continuous film and isolate certain elements in the process.

Producers

Agents which render matter-energy into usable form for components of particular systems.

Profession

A vocation requiring knowledge of some department of learning or science. The profession referred to in this study is Home Economics or Human Ecology. The practitioner of the profession is referred to as a home economist. (SEE Home Economics and Human Ecology)

Professional

One who practices a profession after going through the prescribed recognized initiation. A person who belongs to one of the professions. The professional referred to in this study are those persons who have graduated from a recognized College or University in some version of Home Economics or Human Ecology and perceive their professional identity as a home economist committed to the definition and mission of Home Economics/Human Ecology.

Proposition

A problem to be solved, a subject to be discussed or a statement to be upheld. The expression is usually one in which the predicate affirms or denies something about the subject.

Qualitative

The qualitative aspects of the profession are those attributes that have been acquired and determine the nature and behavior of the persons and the things with which the profession is concerned. These attributes are such qualities as values, beliefs, attitudes, moral and ethical concerns.

Quantitative

The quantitative aspects of the profession refers to determining and expressing exact amount or measures of a particular attribute

of persons or things with which the profession is concerned. (SEE Walker, 1973, for example)

Quality Life

In this study refers to a standard of living above the survival level. Quality life may or may not be a function of resources but human and material resources are either directly or indirectly related to a quality life. (Andrews, 1973)

Reciprocal

Mutual

Research

A systemized effort to discover or revise facts, theories or applications that usually start with a question. The scientific method is used as a means.

Science

Controlled explanation. An activity designed by man to increase the reliability and verifiability of the assumptive world.

Conant defined science as "an interconnected series of concepts and conceptual schemes." (Compton, 1972, p. 9)

Sociocultural

. . . used to make explicit the difference between the human level of organization and lower merely "social" level of certain animal and insect species. (Buckley, 1967, p. 1)

Spheres of man

In an abstract sense these are like concentric circles: From the largest to the sphere closest to man: 1) Lithosphere, 2) hydrosphere,

3) atmosphere, 4) biosphere, 5) sociosphere or the sphere of man.

Steady State

The dynamic behavior of a system over time, in which there is the free input and output of information in response to the state of external systems.

Structure

One of the three primary aspects of systems. (SEE Process and History) The basic concepts of structure are systems, boundary, environment, level of analysis and synergy.

Subsystems

. . . one sort of unit, each of which carries out a distinct and separate process and another sort of unit, each of which is a discrete, separate structure. The totality of all the structures in a system which carry out a particular process is a subsystem. (J. G. Miller, 1971, p. 288)

Symbiosis

The association of two or more organisms for mutual benefit.

Supra-systems

SEE Systems Level

Synergy
(Emergents)

The advantage gained by the operation of a system that is not possible to gain by adding the separate contributions of the systems, subsystems or components: The WHOLE is greater than the sum of its parts.

System

An arbitrarily defined set of interdependent parts working together toward a common purpose such that the parts can be labeled, their boundaries defined, and their functions specified.

Systems Level

Systems level in human living systems ranges from the individual organism in the context of the organization through the simplest interpersonal system (the dyad), to the group (which could be formed on the basis of work relationships, communication relationships or in other ways), the organizational division, or the entire organization.

Technology

A set of techniques employed by a population to gain sustenance from the environment and to facilitate the organization of sustenance producing activities. Technology has the potential for redefining the environment.

Theory

A theory is a more or less verified or established explanation accounting for known facts or phenomena. Theory is also a term used to mean general principles which seem to predict or account for an event with an accuracy so

much better than chance that we say the principle is "true." Theory is a unified system of definitions, postulates and observations organized in such a way as to most simply explain the interrelationship between variables.

Tool
(Scientific Tool)

Any concrete or abstract contrivance designed or used for a particular purpose. Anything used in doing certain work or producing a certain result especially such as requires accuracy or precision.

Transaction

On the other side of, to the other side of, over, across, through (negotiate), to succeed in crossing, surmounting, moving through. Transactional patterns (codes and rules). A complex exchange. Transactions may involve three or more organisms.

Transform

To bring about some change of state in the environment.

CHAPTER I

THE PROBLEM

The Background of the Study

Joan Quilling investigated, "The Nature of the Family Projected by the Home Economics Profession, as Evidenced Through Examination of the American Home Economics Association Literature" (Quilling, 1970). The findings of this study are included in her unpublished doctoral dissertation completed at Michigan State University. She noted that home economics has reached an evolutionary point where it must consolidate knowledge and theory for the sake of clarity and " . . . reveal concrete directional tendencies and needs for the time, chart a course of action that is grounded in realism, based on logic and founded upon principles that can serve as practical guides" (Quilling, 1970, p. 258).

The advent of the seventies brings an urgency to determine the fundamental concepts upon which the field of home economics is based. Neglecting such examinations can only breed vague and ill-defined theoretical foundations which in turn lead to incoherence among the field's practicing professionals (Quilling, 1970, p. 2).

The present study was inspired by this thorough and thought-provoking work as well as the important contributions of predecessors who have also been consistently urging the profession to formulate

a scholarly base as a firm foundation for growth (for example, Budewig, 1957 and 1964; Brown, 1964, 1967a, 1967b, 1970).

In the past it has been customary to approach the creation and dissemination of knowledge in a linear fashion that connotes a direct cause-effect relationship in an essentially static vague juxtaposition. The traditional approach to the study of the family and the near environment of the family have tended to reflect this attitude. It has meant that the emphasis is on the parts of the system and as a result the central focus of the discipline is perceived as fragmented and circumscribed.

We are asking many of the same questions and posing some of the same problems that were discussed at the Lake Placid Conferences with no clearer notion of the answers than were expressed then (Budewig, 1957, p. 36).

Has Home Economics/Human Ecology responded to the needs of the time? Has it continued to respond with a unified focus? Has it charted a unique and complementary course with other helping professions? Have clear statements of the nature of the field been made concerning the applied science of home economics?

The Lake Placid Conferences on Home Economics met for ten consecutive years from September 1899 to July 1909. These meetings clarified the central focus of the discipline. From this foundation the field has sought to integrate the ideal of studying man in interrelationship with his environment as an organic whole. In practice this holistic view has been implemented either in the main as the practical or the ideal.

According to Marjorie Brown:

Home Economists have concentrated on the physical and social systems as independent variables (cause) isolated from dependent variables (effect). These impose both logical and cognitive restraints on environmental decision making which are rarely overcome. The problem is not one of simply "redefining terms" but of evolving an entirely new taxonomy of problem formulation (Brown, 1970, p. 10).

Home Economics/Human Ecology is defined as the study of the relationship of man in his near environment and as a social being. The organism as family in an ecosystem is pictured as a system which can realize a quality life through rational means (Hook and Paolucci, 1970). The home economist perceives the mission of the profession as helping all families realize a quality life. This involves a value or qualitative shift from man as master to man in interdependent relationship with nature. These are not exclusive views but reflect a total framework. "Home Economics broad and encompassing nature cries for organization that will provide a systematic approach to the concept of 'family'" (Quilling, 1970, p. 264).

The Significance of the Problem

The proposed Ecological Systems Framework (ESF) represents the deductive stage in the evolution of the central focus of the discipline of Home Economics/Human Ecology and seeks to reflect the organic whole of this theme. Used in context, the ESF is an elaboration of the central focus of the discipline and offers guidance as

an abstracted conceptual tool. One of the substantive questions is how this tool can be used.

Frameworks do have limitations as well as advantages. Just like any map, it is important to understand these. It is not meant to substitute for the real trip but to be a means for the profession to share meanings and a consensus about the field.

Information is not a commodity but a potential. A communication symbol does not transport an idea, it elicits an idea from the receiver of the message. The implications are that the probability of perfect communication is zero; that there are some pre-requisites to meaningful communication relationships; the meanings that you want other people to have must be in them before you communicate; and that all knowledge gained through communication should be accepted only tentatively (Berlo, 1970).

There will, therefore, never be a perfect way in which the profession can explicate its central focus. Given the state of present knowledge and the means for understanding the interrelationship of man and the environment, how can cognitive tools such as frameworks be developed that reflect the central themes and are more precisely communicable to a great number of professionals, from a vast array of locations and backgrounds, with varying degrees of judgment, responsibility and education? The proposed ESF is an attempt to meet some of these needs and to view some of the concerns of the field as an organic whole.

The ESF is presented as an explicit model representing the next stage in the evolution of the basic interrelated concepts of

the field. It is a synthesis of a series of related materials and represents Level I of the intellectual hierarchy and is a macro-map of the discipline's central focus (Blackburn, 1973). Its key use is in the sequence of planning and the framework provides for the ordering of the data that can give structure and context to the thinking and operational style of Level II of the intellectual hierarchy which consists of a field's philosophy, theory, research, curriculum and practice. The ESF insures that the process of planning is rooted in the realities of the social system of the profession and the contingent life-support systems. In addition, it more adequately reflects the constant and mutually interdependent processes of the organism and the environment as a whole and as a result the short-term and long-term consequences of rational decision-making can more easily be perceived and projected.

(then) . . . home economics can inform instead of sermonize, postulate instead of admonish and reason instead of idealize. As the field enters the 1970's, it can reveal concrete directional tendencies and needs for the time, chart a course of action that is grounded in realism, based on logic and founded upon principles that can serve as practical guides. Thus the field's outlook becomes more flexible, comprehensive and perceptive (Quilling, 1970, p. 258).

By making the central focus of the discipline explicit, the field can make a commitment to the concepts to which the profession attends, explore ways to implement the concepts in consistent ways and reach a consensus about the discipline as a distinct applied science.

The Ecological Systems Framework is seen as a superior explanatory tool and it defines the abstracted boundaries of the

profession as an open ecosystem that is always in relation to other open systems. From General Systems Theory applied to the Ecological Systems Approach the Ecological Systems Framework includes the basic characteristics of a system: Structure, process and history. The field can then move beyond the study of the family as an institution of a particular culture and/or as a vested interest to the study of the organism and organism as family as a concept of scientific study. As a result other related issues such as defining the qualitative and quantitative concerns of the family as an ecosystem can be defined in more precise ways.

The Basic Assumptions of the Study

There are ten basic assumptions that are fundamental to the overall design of this study. The logical-deductive reasoning proceeds from these premises which are synthesized from the review of literature and the content analysis (Budewig, 1957; Brown, 1964, 1967a, 1967b, 1970; Quilling, 1970).

1. From the beginning the discipline of Home Economics/ Human Ecology has had a central focus.
2. The implied central focus has not been congruently implemented by the profession.
3. The social system of the profession, therefore, does not hold a consensus about the central focus of the discipline.
4. The present implied focus is a partial reflection of the discipline of Home Economics/Human Ecology as a unique applied science.

5. The value of the applied science of Home Economics/ Human Ecology depends to some degree on the development of the scholarly base as explicit statements and models on which the field is organized.
6. The ESF is a development that can facilitate the evolution of a scholarly base by presenting the basic concepts of the discipline as an explicit abstract organization of concepts.
7. The ESF is a macro-map of Level I of the intellectual hierarchy of the discipline that can facilitate the comprehension of the dimensions of Level II of the intellectual hierarchy: The field's philosophy, research, theory, curriculum and practice. It is a means whereby the assumptions of the central focus of the discipline can be brought under conscious control.
8. The ESF represents the deductive stage in the evolutionary development of the central focus of Home Economics/Human Ecology.
9. Home Economics/Human Ecology is changing and these developments need to be rooted in systematic scientific clarification of the field's scholarly base.
10. There is a critical need for Home Economics/Human Ecology to invest human and material resources to continue the scientific study of the discipline's scholarly base.

The Primary Objectives of the Study

The objectives of this study are proposed as a means of clarifying the central focus of the discipline of Home Economics/ Human Ecology. The specific objectives were as follows:

1. Through a review of historical documents about the field, to define the need for making the central focus of the discipline more explicit.

2. To define this need as one of the critical issues facing the field today.
3. To clarify some of the changes that are presently taking place in Home Economics/Human Ecology in higher education.
4. Given a synthesis of related literature from objectives 1 through 3 and other scientific developments, to propose an explicit deductive abstracted macro-map of the central focus of the discipline, referred to in this study as the Ecological Systems Framework (ESF).
5. To identify some reactions to the proposed ESF from the population of administrators of units of higher education of Home Economics/Human Ecology.
6. To clarify how the ESF can be used as a tool.

The Overall Design of the Study

The overall design of this study seeks to build another link in the evolution of the central focus of the discipline through the synthesis of related parts to form a whole. The fragmentation of Home Economics/Human Ecology's central theme has been defined as one of the critical issues facing the profession (for example: Mannino, 1971; Marshall, 1973).

This study is, therefore, a synthesis of the following:

1. The Need

- a. A review of some of the existing historical documents about Home Economics/Human Ecology. Chapter II summarizes some of these in chronological order.
- b. Descriptive data were gathered to determine some of the changes that are happening in the profession. A qualitative content analysis of some of these existing documents was done to determine to a limited degree some of the trends of organizational and name change taking place in a small sample of administrative units in higher education. See Chapter III for this information.

2. The Development of the Proposed Ecological Systems Framework (ESF)

- a. Chapter IV reports how a synthesis of existing literature about the field is integrated with the related scientific revolution of General Systems Theory (GST) applied to the Ecological Systems Approach (ESA) to develop the proposed Ecological Systems Framework (ESF). Out of the literature and the development of the ESF, a set of propositions have been derived. The propositions have the potential to move the central focus of the discipline to the inductive-empirical stage.

b. A glossary of terminology

Because this study proposes that the ESF represents a new stage in the development of the central focus of the discipline, the language used to describe this stage is part of the organization that is being proposed. Language represents an expression of behavior and is shaped by the images of the world. Thus the language of the ESF is part of the new paradigms of science (Kuhn, 1970). The language of the ESF is an important part of the proposed elaboration as a means to bridge the vague, circumscribed and static perceptions that are at present reflected in the abductive stages of the comprehension of the discipline's central focus.

3. Reactions to the proposed ESF were polled

A survey of all the administrators of units identified as Home Economics/Human Ecology was conducted (Chapter V). The population reviewed a thirteen page Ecological Systems Framework Opinionnaire Packet and responded to a three page structured opinionnaire. As a result of this synthesis of parts, a new organic whole was refined and is proposed.

4. The ESF as a tool

Chapter VI clarifies some guidelines to facilitate the use of the ESF as a tool.

The ESF is the result of cumulative history from within and about the profession related to external forces that have been integrated. Table 1 summarizes some of these influences over time.

Limitations of the Study

The limitations of this study are related to the specific objectives. The critical need for the field to make the central focus explicit is a limitation because this has already been stated so many times and so much energy has been devoted to defining the mission. This study, therefore, may seem like another such abductive statement.

Because this study represents only one of many stages in the evolution of the central focus of the discipline, it is incomplete and leaves many important questions yet to be answered. A complementary experimental-inductive series of studies will be important links in the process of the development of a scholarly base for Home Economics/Human Ecology.

The ends of science is controlled explanation. This goal can be attained by approaching the study of man and his environment so that there is a balance between an inclusive versus an exclusive view. This means that knowledge or explanation is cumulative and builds on information gathered from abductive, inductive and deductive methods. This system is visually mapped in Figure 1.

Limitations are inherent, therefore, in every objective of the overall design of this study because of the ways in which

Table 1.--Some Related Events in the Evolution of the Central Focus of the Discipline of Home Economics/Human Ecology Over Time

Major Events in the Evolution of the Central Focus of the Discipline	Some Related Events and Sources of Change: Social, Economic, Technological and Educational
1899-1909 The Ten Lake Placid Conferences	
1909 The American Home Economics Association is organized	
1913 The "Syllabus" (AHEA)	World War I The Depression
	1926-1938 The Ecosystem Theory in Sociology by Park and Burgess (SEE Karl W. Deutsch, <u>et. al.</u> , 1971)
	1941-1945 World War II
	1950 General Systems Theory (Ludwig von Bertalanffy)
	1952 <u>The Second Sex</u> (Beauvoir)
	1958 Sputnik launched by Russia
1959 <u>New Directions</u> (AHEA First Half Century)	
	1960 Max Lerner: American Woman's Five Adaptive Revolutions (SEE Paul Miller, 1960, p. 7)
1961 Home Economics Seminar (French Lick Conference)	
1963 <u>Liberal Education and Home Economics</u> (Lee and Dressel)	1964 Compilation of approaches to the study of the family (Christensen, 1964)

Table 1.--Continued

Major Events in the Evolution of the Central Focus of the Discipline	Some Related Events and Sources of Change: Social, Economic, Technological and Educational
1968 <u>The Changing Mission of Home Economics</u> (McGrath and Johnson) 1970 <u>National Goals and Guide- lines . . .</u> (Schlater) "The Family as an Ecosystem" (Hook and Paolucci)	1965 "Living Systems," J. G. Miller (1955, 1965, 1971) <u>The Structure of the Scientific Revolution</u> (Kuhn) 1970's Computer simulation of multi-loop interrelated social phenomenon (for example, Forrester, 1971) The "Energy Crisis"
1973 The Eleventh Lake Placid Conference	
1974 The Ecological Systems Framework Proposal (E. Vaines)	

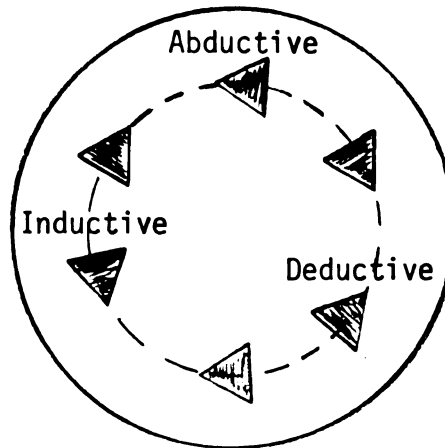


Fig. 1.--Controlled Explanation: The Abductive, Deductive and Inductive

controlled explanations are evolved. Further, the range of available literature, the human and material resource restrictions of this writer and the present state of man's knowledge were constraints. The boundary of this study is also affected by the images of language which tend to connote the two dimensional aspects of time and space in a static world. The opposite has been the intention and care has been taken to alleviate some of this bias.

The fact that Home Economics/Human Ecology has a limited bank of historical materials concerned with the scholarly base of the field from which to select, is a disadvantage and as a result puts many of the questions posed in this study in the realm of the esoteric. That would appear to be the fate of previous related reports, articles, and research. This may, in itself, be a phenomena of the profession and is an area in need of systematic examination. Marjorie Brown, for one, has alluded to this in some of her writings.

In order to attain a humanistic science in home economics and to provide services which are morally responsible, it is necessary for the profession to meet certain conditions in the preparation and continuing education of its members . . . there are implications for the objectives of professional education, concerning the specializations in which home economists are prepared, and concerning personnel admitted and retained in the field (Brown, 1970, p. 23).

Most of the helping professions recognize that not every one has the qualifications to master the complex conceptual structures of knowledge required and/or to practice the moral and ethical principles of the profession. There is a danger in any profession that the kinds of persons who enter it and who remain may use the field for ego-centric needs. Such persons are not likely to obtain the conceptual competence needed or to practice the use of moral judgment (Brown, 1970, p. 26).

If home economists are to contribute to the welfare of families and individual family members and of the society generally, it would seem that they need to have certain qualities as persons The conceptual requirements of a home economist who would fit the model of home economics presented earlier are highly complex Cognitively complex persons are more likely to define and to cope with "practical" problems in abstract and theoretical terms, moving back and forth between the concrete situation and complex, abstract knowledge related to it with greater ease than the cognitively simple person who defines "practical" problems only in terms of the concrete and perhaps trivial manifestations.

If the problems of families and the concerns of home economics generally are to be approached creatively and adaptively, these qualities are needed in members of the profession (Brown, 1970, p. 28).

The objectives of this study are only some of the many that need to capture the imagination and concern of Home Economics/Human Ecology. It is the interdependence of a number of such interrelated studies rather than any one study as a distinct entity that needs to be stressed. There is no one right answer or answers to the many issues concerning the scholarly base of the field. The formulation of research problems that reflect the holistic complex nature of

these issues which include both qualitative and quantitative aspects is needed. This study is presented as part of that process and enters the arena to be refined, added to and changed as the overall organic whole of the discipline is developed.

CHAPTER II
THE CENTRAL FOCUS OF HOME ECONOMICS/HUMAN ECOLOGY:
AN HISTORICAL REVIEW

Introduction

The purpose of this review of historical documents is to clarify the development of the central focus of the discipline. Over time Home Economics/Human Ecology has a history of statements concerning the central focus of the field. The first of these is found in the Proceedings of the Ten Lake Placid Conferences (1899-1909). In 1913 the American Home Economics Association published a Syllabus of Home Economics which represents the beginning of a number of related publications that reflect a quest to define the discipline and the role of home economics in higher education.

Marjorie Brown in 1970 noted that:

We have a ritual in home economics which we go through periodically and which is called "defining the mission." We go through a ceremony in which we reassure ourselves that the mission of home economics is to contribute to the improvement of homes and then we go about life as usual without concern for the commitment we have made I firmly believe that this situation is due to the failure to recognize the basic concepts, like other concepts such as "health," "alleviation of pain," "moral development," etc. to which value is attached (and) may be defined in terms of empirically determined correlates and descriptive theory: (Brown, 1970, p. 13).

Written records are at best abstract descriptions of real events. This review of pertinent documents about Home Economics/ Human Ecology has an inherent limitation because only written symbols have been used. Interpretation of the same records may be different from reader to reader. Primary and secondary sources have been used to facilitate a broader more objective approach to achieve the goal of this chapter.

The Evolution of the Central Focus of the Discipline of Home Economics/Human Ecology

Both people and events contributed to first the slow, then the more rapid, evolution of Home Economics/Human Ecology toward the end of the nineteenth century (Budewig, 1957, p. 250). The fact that the idea crystallized as a self-contained entity and not as an offshoot of some other movement, however, is due in large measure to the efforts of the extraordinary Mrs. Ellen H. Richards.

The Roots of the Central Focus

The beginning of home economics has been traced by Caroline Budewig (1957) to Francis Bacon (1561-1626). It was his belief that knowledge should be pursued for the purpose of helping man better his environment and that nothing must be disdained merely because it appears vulgar or familiar. He is attributed with opening the way for the study of everyday life such as food, clothing and shelter.

These became the cornerstone of the body of knowledge of home economics in the nineteenth century. It is also significant because the notion that prevailed in the 16th century that such matters concerned with man's everyday life were not worthy of study still prevails to some degree today.

In the eighteenth century Count Rumford (1753-1814) is credited with bringing this idea to fruition in a number of concrete forms. He was a theoretical scientist whose development of what he termed, "domestic economy," is important to home economics because he laid the foundation for an art and a science of the household (Budewig, 1957, p. 147). His sole aim was to advance the general welfare of his fellow men. It was Rumford's interest that led him to his most practical pursuits in "domestic economy": The construction of kitchen fireplaces, the preparation of food, the economy of fuel, the warmth of clothing, the construction of kitchen utensils, and the general improvement of kitchens. These are all the more important because Rumford was an accomplished and able scientist. Equally important as his practical pursuits was his philosophy of "domestic economy." Until an idea is made explicit, until the result of a work can be shown to be related to human welfare, it can pass unnoticed in the course of events. Rumford's theories regarding the application of science to the details of the household give his writings universality and timelessness and make them worth studying even today. Most worthy of note is the consistent harmony between all the contributions of this man as pure scientist, practical inventor, humanitarian and philosopher. "What he found out in his job of

clothing, feeding, and housing his charges in the House of Industry for the poor forms the basis of a body of knowledge for what later became known as home economics" (Budewig, 1957, p. 130).

One of Rumford's theories which he put into practice in his work . . . was that the food, clothing, and housing of people had a definite and direct relationship with their happiness and indirectly with their virtue (Budewig, 1957, p. 135).

Rumford, like Bacon, saw the real and the ideal as one. Science is not a thing apart from living but should be used together in perfecting the details of man's daily existence.

Through the work of . . . Count Rumford, home economics came to have a philosophy, a method, and the beginnings of a body of knowledge all its own. From this time forward, the story of home economics is that of a gathering of forces which was to become known as the home economics movement (Budewig, 1957, p. 159).

Following Rumford's work a definite movement to educate for home and family living became recognizable. Influential personages such as Catherine Beecher (1800-1878), Edward L. Youmans (1821-1887), and Justus von Liebig (1803-1873), as well as the Land Grant Act of 1862, helped lay the groundwork for the First Lake Placid Conference in 1899.

The Ten Lake Placid Conferences on Home Economics (1899-1909) were organized through Ellen H. Richards being inspired by Melvil Dewey who "overpersuaded" her to crystallize her convictions (Lake Placid Conferences on Home Economics, 1908, p. 54). All over the country people were working individually and in groups for the betterment of home living. What was evident to Mr. Dewey is that there

was a need for someone to coordinate some of these fragmented efforts into a combined force.

The Focus Takes Form: The Ten Lake
Placid Conferences (1899-1909)

Certainly the most important event in the history of the profession of Home Economics/Human Ecology was the Ten Lake Placid Conferences on Home Economics. This series of ten consecutive meetings from 1899 to 1909 resulted in the organization of the American Home Economics Association. What follows are some of the highlights of the Conferences that bear directly on the objective of this chapter. It is not surprising that some of the statements and decisions of the early years of Home Economics/Human Ecology are still with us. Many questions that were posed then are still with us today.

At the First Lake Placid Conference the first order of business was to select a name that would reflect the full scope of the work. "Home Economics" was agreed upon with "Domestic Economy," "Domestic Science," and other related labels rejected as inappropriate. This issue persisted, however, throughout the Ten Conferences. (See Lake Placid Conferences on Home Economics for the 4th, 6th, 8th and 10th meetings.) Other alternatives were discussed and voted on such as "euthenics," (7th Conference) but in the end the organization was officially christened home economics. The profession's name and the rationale for it, is one of the persistent contemporary concerns of the field.

Defining the central focus of the field is another basic issue.¹ The language that has been used to describe and define the focus, has tended to make the meaning vague and open to many interpretations. There are some reappearing threads, however, and the following are brief excerpts from the Lake Placid Conferences that are of importance to this study.

The First Conference--1899

The name "Home Economics," was agreed upon by the ten conference members. Ellen H. Richards: The cost of living is a mental rather than a material limitation.

The Second Conference--1900

Home Economics is seen in a sociological context and, therefore, this subject is an important foundation for the profession. The question of the material (or useful) and the liberal (or educational) qualities of home economics came to the fore almost from the beginning.

Mrs. Henrietta Goodrich also noted the essential unity, the organic interdependence of all the work that the conference was doing: that the home is the organic unit of society, that to raise the standard of life in the home is to elevate the whole social system (pp. 26-27).

¹I am using the term focus in this context to mean the center of activity and attention of a discipline.

The Third Conference--1901

Caroline Hunt in her paper on "Revaluations" calls for man to be viewed as rational and in control of his environment and relationship to man's values. "Good" values make man's freedom, " . . . approach its maximum" (p. 81). "If we have unnecessarily complicated a single life by perpetuating useless conventions or by carrying the values of one age over into the next, just so far have we failed. If we have simplified one life and released in it energy for its own expression, just so far have we succeeded" (p. 89).

The Fourth Conference--1902

Nomenclature was a constant theme throughout this Conference. Specific references to the focus of the profession are as follows: Home Economics is seen as ". . . a study of connections and relations between certain phases of man's nature." And Home Economics is the study of both the conditions and ideals of man's physical environment as well as his social relationships . . . (and) the relation between an individual or family and the physical environment . . . the goal is to synthesize all related knowledge and relate these to the goals of home and family living (p. 71).

The real significance of home economics lies in its relational aspect between the material and immaterial. A fact that to this day has caused misunderstanding and confusion within the profession as well as the image projected by the profession.

The Fifth Conference--1903

This meeting stressed the relation of man and his environment and it was frequently used by these early leaders in the home economics movement as a frame of reference. At this conference some examples of the pervading theme have been identified:

- a) Sarah Louise Arnold's paper on the training and certification of teachers of home economics stressed the view of home economics in relation to other subjects: " . . . the sciences, literature, history, human life . . . " are the foundation of a household economics teacher and will enable her to see relations, the relation of sciences to the everyday household arts and to lead the way to a better and saner practice (p. 11).

Some of Dean Arnold's statements concerning the relation between theory to practice and science to art have a "systems" ring to them. For example, she saw that no part was complete unto itself and that the goal was to " . . . yield a necessary part of the perfect whole" (pp. 11-12). Further, that the parts are interdependent with each interpreting the other; to each equal honor belongs.

- b) Mrs. Mary Hinman Abel amplified the relation between home economics material and humanistic values. " . . . we are not disembodied spirits, we can only express ourselves through

our environment, and this material environment in turn reacts on us and affects mental and moral growth" (p. 29).

- c) Mrs. Richards' writings and discussions throughout the ten conferences also reflect an understanding and concern for the effect of environment on the development of man. Some examples of this orientation follow.

There can be no question of the place in a liberal curriculum of a study of man in relation to his environment (p. 65).

It must be assumed . . . that a study of the material things which react on man's intellectual and moral nature is a legitimate and, indeed, an essential part of his education.

The moment it is acknowledge that man "reacts" to his environment, the study of these reactions is not only allowable but imperative (p. 65).

The Sixth Conference--1904

One of the more significant and often quoted pieces of the Sixth Conference is Ellen Richards' "creed":

Home Economics Stands for

The ideal home life for today unhampered by the traditions of the past.

The utilization of all the resources of modern science to improve the home life.

The freedom of the home from the dominance of things and their due subordination to ideals.

The simplicity in material surroundings which will most free the spirit for the more important and permanent interests of the home and of society (p. 31).

The question of the name again appears. Mrs. Richards encouraged the label of "euthenics" (p. 63). Her rationale is enlightening:

Euthenics connotes a science of controllable environment. Her presentation was apparently so convincing that the conference voted to accept the name to represent the work in colleges and universities.

The Sixth Conference (1904) adopted the following nomenclature at the national level: "Handwork in elementary schools, Domestic Science in Secondary schools, Home Economics in normal and professional schools, Euthenics in colleges and universities" (Lake Placid Conferences on Home Economics, 1904, p. 64).

The question of the material (or useful) and the liberal (or educational) qualities of home economics came to the fore almost from the beginning of the deliberations. Unfortunately, the application of the home economics idea planned and recommended by participants in the later Lake Placid Conferences were not always consistent with the basic ideals expressed at the earlier conferences. Early curricula, for example, showed a preoccupation with practical, specific points of the home and the central whole issues with their coherent structure appear to have been forgotten, rejected or inadequately understood.

This was recognized by several of the Lake Placid participants themselves who spoke of "moving too fast" and of having much which still needed to be done in determining the focus before the field could be implemented. An instance of the lack of recognizing the integrating theses to which they had given a commitment is the recommendation that home economics might be divided among different already existing disciplines in some situations although this is in direct contradiction of an earlier commitment that this should be a

new field with a new approach, and a new set of questions concerning the home and family (Lake Placid Conferences on Home Economics, 1904, pp. 38 & 77).

The Seventh Conference--1905

The subject matter of home economics as it was to be implemented in elementary and secondary schools in colleges and universities dominated the seventh, eighth, ninth and tenth Lake Placid Conferences. It is a key link in the development of the foundations of the profession and the root of the duality between the discipline's focus and practice that is still part of the profession.

All of the broad understanding that had been given home economics in the previous conferences seem to be forgotten in the efforts to get the work accepted as a manual training subject in the schools (Budewig, 1957, p. 227).

It is not surprising then that home economics soon became stereotyped as "cooking and sewing" to justify it as hard work and thereby a part of the manual training movement (Budewig, 1957, p. 227). Even then, some were concerned and this can be noted in a remark made by Dean Marion Talbot:

. . . make out of this work in high schools, not courses in cooking but courses in home and family making. This is what I think is needed more than chemistry and cooking (p. 67).

The Eighth Conference--1906

The main concern of this conference was to differentiate between home economics at the elementary, secondary schools and in the higher education levels, as well as the curriculum that should be included in the trade schools. In terms of the focus of home economics, it is worthy to note some remarks by Ellen H. Richards. In context the remarks are with regard to the meaning of "euthenics" program, or the name accepted at the Sixth Annual Conference to denote the education for home and family living in institutions of higher learning.

Euthenics is the practical application of well known laws (p. 33).

(there is a need to) accept the one really important idea of organic evolution so far as man is concerned namely, that of modification by environment (p. 34).

Power must be had today. Culture may well be added. But power must be underneath whatever is to survive Euthenics or its equivalent must form a part of the educational equipment of all live institutions (p. 35).

The Ninth Conference--1907

The proceedings of this conference explicitly spell out some of the implicit concerns of these meetings: mainly an awareness of the psychological and qualitative concerns of home economics. Dr. Benjamin R. Andrews noted the humanistic as well as the technical factors present in the profession and called the attention of the

conference to this matter in a presentation entitled: "Psychic Factors in Home Economics" (pp. 152-153).

I wish to point out . . . the great extent of the mental in family life . . . (and) every province of the material as conquered by the individual, becomes a vehicle for the spiritual We must remember that there is a science of the personal and the spiritual for itself, and when psychology, ethics, sociology and other sciences of the personal are directly applied to the home, then home science will have entered into new regions of influence. Then, immediate attention will be had to what we all value, as among the things of highest human worth, the fine art of family living (pp. 152-153).

The Tenth Conference--1909

The Tenth and final Lake Placid Conference dealt mainly with the training of teachers for home economics. In keeping with the identification of the threads of the focus of the discipline Josephine Berry commented that: "The aim of the whole work is the bettering of conditions for the people" (p. 60).

Mrs. Richards and the early leaders in home economics recognized that there was both a "law" and a "spirit" in their subject and that the "spirit" was often lost sight of in adhering to the "letter of the law." It could be taught merely as a technique, or as a vital subject with great human value.

Mrs. Richards reiterates this in her meaning of the name of home economics:

. . . home economics: home meaning the place of shelter and nurture for the children and for those personal qualities of self-sacrifice for others for the gaining of strength to meet the world; economics

meaning the management of this home on economic lines as to time and energy as well as to mere money (p. 20).

When our possessions acquire an intrinsic value, when all the work of the house which cannot be done by machinery is that of handling beautiful things and has a meaning in the life of the individual and the family, service will not be required in the vast majority of homes: Then we may approach to the Utopian ideal of the nobility of labor (pp. 24-25).

This leads to the most important service a teacher of domestic economy can render, a giving to the people a sense of control over their environment (p. 23).

It was evident in the discussions at the Tenth Annual Conference (1909) that the training of the professional home economist and the homemaker were not always compatible. How to balance professional and liberal, practical and theoretical experience and at the same time relate these to the intangible values of life is still a question before the profession (Marshall, 1973). Whereas there had been general agreement on philosophical questions, the picture changed when the ideals were interpreted in concrete ways. The many-sided nature of the subject presented difficulties from the beginning.

The American Home Economics Association was organized as the official body of the profession and the implementation of that was planned for later in 1909 (p. 189).

Summary of the Ten Lake Placid Conferences

The Lake Placid Conferences on Home Economics met for ten consecutive years from September, 1899 to July, 1909. These meetings

represent the forging of the foundation of the focus of the discipline. For the first five years the questions concerning the focus of home economics were discussed and included statements about purpose, definition, scope, and the relation of the new subject to existing curriculum in schools and colleges. The ideas and ideals seemed to have unanimous backing from the participants. Home Economics as a subject matter was dedicated to man in interrelationship with his environment as an "organic whole." And the study of man's personal and family life included both the material and spiritual aspects.

The remaining five years were spent with the tasks of formulating a body of knowledge, gaining acceptance in schools and colleges and seeking financial backing for the implementation of the idea. This practical aspect of the development of the profession seemed to suffer a gap between the "ideal" and the concrete. Either the practical or the ideal values were emphasized to the detriment of the holistic view of personal and family living. This confusion was further complicated because at that time there was little exact knowledge to support the big organizing conceptual idea.

It is of importance to note this as a crucial issue before Home Economics/Human Ecology today and it is more complex as well as unanswered. Seeking agreement has met with confusion because the end goals and values have not been clarified (Brown, 1967, p. 775).

On January 1, 1909, the American Home Economics Association with a nucleus of professionals from the teaching section of the Lake Placid Conferences was made official and the new association stated

for its purpose: "The improvement of living conditions in the home, the institutional household and the community" and welcomed to its membership, " . . . all who are actively interested in home problems" ("Announcement," Journal of Home Economics, 1909, p. 1).

The home economics movement was a part of the larger democratic and humanitarian movement which had gradually evolved out of the great Christian tradition. Coupled with the spirit of inquiry inherited from the Greeks, the cultural milieu was formed in which science in both its theoretical and practical aspects could develop. The home economics movement was the result of interest in the application of the principles of science to the details of the home environment (Budewig, 1957, p. 204).

The Proceedings of the Lake Placid Conferences indicate two large areas of need: 1) the social need to incorporate, at all education levels, organized areas of study which would contribute to and improve the quality of life of individuals and families in society and 2) the necessity of differentiation by name among those educational levels.

The Syllabus of Home Economics--1913

A syllabus was adopted by the American Home Economics Association in 1913 that indicated "family" application was a criterion for deciding the boundaries of home economics content:

Home Economics, as a distinctive subject of instruction, is the study of economics, sanitary, and aesthetic aspects of food, clothing, and shelter as connected with their selection, preparation, and use by the family in the home or by other groups of people (Syllabus, 1913, p. 4).

(It) . . . proposed that the subject of Home Economics be divided into four main divisions, (1) food, (2) clothing, (3) shelter, and (4) household and institution management (Syllabus, 1913, p. 5).

And this Syllabus is a classified list of topics from which courses can be made up (Syllabus, 1913, p. 7).

The "Syllabus" is of interest because it is an extension of statements recorded at the Lake Placid Conferences. From 1935, continuing through the 1940's there were other official and unofficial attempts to clarify the focus of the discipline (Riatt, 1936, p. 267; Spafford, 1940, p. 41). The following are a resume of some of the more recent attempts.

The Central Focus of Home Economics/Human Ecology as Reflected in Publications from 1955-1973

Each of the twelve documents that is reviewed is written for a specific systems level. The audience that is most written to and about is home economics as it is found in the settings of secondary and higher education.

Studies on the Teaching of Home Economics in Colleges and Uni- versities--1955-1956

Spafford and Amidon reported in their government sponsored publication, Studies on the Teaching of Home Economics in Colleges and Universities 1955-56, that they wished,

. . . to make more readily available findings and techniques from home economics studies which have implications

for the improvement of college programs Materials for the publication were drawn primarily from master's and doctoral studies related to college teaching in home economics, which were completed during 1955-56 (Spafford and Amidon, 1959, p. v).

Fifty-two studies which dealt with some phase of the college program, form the basis of this report and represents studies of wide and varied scope as well as methodology. One important outcome of this compilation was the recommendation that college home economics departments need to extend their research programs and the results of research completed are in need of being made more readily available.

It is implied throughout this publication that there are a number of focuses in the home economics program in the context of higher education. Some of the objectives of the professional's education that are identified are summarized as follows:

- 1) . . . to prepare an ever-increasing number of men and women for family living and homemaking (p. 14).
- 2) . . . to prepare individuals for the world of work today and the kind of life most meaningful to them (p. 14).
- 3) . . . help students achieve basic values, satisfying to the individual and acceptable to society, to use as guides in their everyday living (p. 25).
- 6) A program planned to encourage, provide the conditions for, and prepare students to take ever-increasing responsibility for their own living and continued learning (p. 42).
- 8) A teacher education program designed to meet the conditions of life and teaching today (p. 64).
- 9) An educational program that fosters the kind of family life desirable in a democratic society such as ours (p. 77).
- 11) A program of education for marriage and family life at the college level that draws on and interrelates the resources of the college in

setting the goals, and in planning, carrying out, and evaluating the program (p. 77).

From these statements of some of the primary purposes of home economics in higher education there appears to be confusion between professional preparation and personal "life" preparation. These two aims are not necessarily exclusive goals of higher education but most of the items listed in this document deal with personal "individual" development to the exclusion of preparation for a profession (Marshall, 1973, pp. 9-10). The central focus of home economics implied in this report centers on the student's and in some instances the faculty's egocentric need to be a "good" individual and a "good" home economics teacher in the secondary school. It is assumed that there is some kind of cause-effect relationship between these statements and the behavior of the initiated professional.

Challenged to implement these eleven purposes, it would be a difficult task to find some reliable and valid means to make these inspirational statements concrete realities for a college program. The vagueness of these speak either to the research from which these were extrapolated or the authors' biases.

The value of the report lies in the attempt to synthesize and disseminate research findings to professionals and to encourage better research in home economics. It does not, however, appear to add to the clarification of the central focus of the field.

"Reviewing Our Orbit"--
September 1958

Around the time of the first half century of the American Home Economics Association, the impact of the launching of the first space satellite Sputnik, by Russia, was being felt. The Journal of Home Economics reflects this and one example was an article by Beatrice Paolucci entitled, "Reviewing Our Orbit" (September, 1958). It is of importance to the objective of this chapter because the central focus of the discipline is recognized in this quote:

The family remains as the center of our universe--
it is the pivot point without which we have neither
 purpose nor destiny.

Our satellite must be so constructed so that it continues to provide the foundation for programs of education and social action To keep in tune, the home economics satellite must be in an orbit that remains near enough to families so that it can realistically analyze their needs--both immediate and potential--and, in light of these, synthesize information, knowledge, and skill which will effect a positive stimulus for helping families to realize their potentials (Paolucci, 1958, p. 499).

Another important contribution of this statement is that it stresses the need for home economics to recognize and anticipate the impact of outside influences on the shaping of the central focus of the discipline.

New Directions--1959

New Directions, published in 1959 is a statement prepared by the Committee on Philosophy and Objectives of Home Economics of the American Home Economics Association. It states that the central

focus of home economics is to " . . . improve the lives of families and individuals" (p. 4).

. . . Home economics synthesizes knowledge drawn from the physical, biological and social sciences and the arts and applies this knowledge to improving the lives of families and individuals (p. 4).

The emphasis that it (home economics) gives to various aspects of living are determined by the needs of individuals and families in the social environment of their time (p. 5).

It talks about managing resources,

. . . so that values and goals of the individual, the family, or of society may be attained (p. 5).

Home economics . . . can be effective only as it alleviates the stresses and promotes the satisfactions brought about by new situations (p. 8).

McConnell states that this document particularly stresses some of the following as focuses of concern for the profession that are at once vague yet stimulates thought (McConnell, 1965, pp. 105-107):

- 1) . . . human values that are inherent in the concept of the family as a basic unit of the American democratic society and as the environment for individual human growth Personal and social values are interacting elements of the value focus (pp. 105-106).
- 2) The applied nature of the field and the functional definitions of home economics bring action and process to the fore . . . both ends and means become important . . . instrumental values . . . merit careful attention. Without this emphasis, there could be no "application" and therefore no home economics (p. 106).
- 3) Home economics integrates complementary values without necessarily needing to make either-or choices Interrelatedness of factors is a characteristic of home economics (p. 106).
- 4) As a society-serving profession dealing with the family as a social group, home economics takes its values and its priorities from the society within

which it operates It expresses . . . the relatively stable values of the American democratic society; it also expresses some of the uncertainty present in a rapidly changing society where persons and social groups may not always be sure of their roles (pp. 106-107).

New Directions represents another link in defining the central focus of the discipline. It is a thoughtful document that took three years for the Committee to prepare as part of the fiftieth anniversary of the American Home Economics Association. Although the statements tend to be broad and inclusive, it is a means whereby home economics sharpened its perception of the challenges and opportunities for the future.

Home Economics in Land-Grant
Colleges and Universities--1959

Home Economics in Land-Grant Colleges and Universities is a statement of objectives and future directions prepared by the Home Economics Development Committee, Division of Home Economics of the American Association of Land-Grant Colleges and State Universities. It followed and built on New Directions and there are many similarities between the two documents.

The central focus of the discipline is that which is given in New Directions. The importance of this account is that the profession as represented by these two groups, was presenting at that time the central focus of the discipline as a united commitment.

"Higher Education in Home Economics:
An Appraisal and a Challenge"--1960

Paul Miller presented "Higher Education in Home Economics: An Appraisal and a Challenge" to a meeting of the Division of Home Economics of the American Association of Land-Grant Colleges and State Universities in Washington, D.C. on November 15, 1960. This paper is of importance for many reasons. For one, he challenged the profession to reconcile the revolutions that women were engaged in and the pivotal shifts in a new kind of world to home economics as it was manifest in the university environment.

As a university administrator he defined the central focus of the discipline as follows:

I believe that the heart of home economics is the relational system of the family . . . in home economics the relational system is studied with reference to the physical, esthetic, social, economics, and process variables which, singly or together, converge to implicate its function (P. Miller, 1960, p. 18).

Home Economics Seminar--July, 1961

The objectives of the French Lick Conference included:

. . . as a first step in meeting the need, identified by college staff, for defining responsibilities at different levels of teaching in order that each successive experience of the study will build on the preceding experience.

The second step . . . will deal specifically with articulation and differentiation of teaching at the various levels, secondary, college and adult.

The central focus of the week's deliberations became an exploration of the "concept" approach as a possible

way of identifying, organizing, structuring, and unifying the significant subject matter content of the field (Home Economics Seminar, 1961, p. 3).

The project was initiated by the Home Economics Division of the Association of State Universities and Land Grant Colleges. The task of identifying the subject matter of home economics was one of establishing meaningful relationships among the disciplines considered part of the field. The root disciplines were considered as one of the unique problems associated with the identification of the content of an applied field.

Home Economics is an applied field. It draws upon fundamental knowledge in the basic sciences--physical, biological and social--as well as in the arts and humanities In an applied field, concepts of the basic fields are used but also new concepts with orientation to the special field will develop; new principles will arise; analysis leading to new synthesis of knowledge will emerge (Home Economics Seminar, 1961, p. 22).

This seminar was exploratory in nature and there were no definite conclusions drawn (Home Economics Seminar, 1961, p. 4). Recommendations for Post-Seminar follow-up was included in the progress report and suggested a coordinating committee be appointed and a large coordinated study at the national level be organized and funded (Home Economics Seminar, 1961, pp. 48-49). The central focus of the profession's beliefs are not specifically discussed. The concept approach for dealing with subject matter is one of the important outcomes of this conference and implies some insights into an approach for defining the field's central focus.

Liberal Education and Home
Economics--1963

This monograph, Liberal Education and Home Economics, is concerned primarily with the curricula of undergraduate professional schools in home economics and dwells on the balance between liberal arts subjects and professional courses in the total undergraduate experience. The study traces in some detail the changing emphasis in home economics education from a practical preparation for the activities of homemaking, to a broader concern for professional activities (Dressel and Lee, 1963, pp. 20-41). These changes and others cited are often attributed to external forces and circumstances rather than internal planning.

Home Economics in higher education as a content area can be viewed in three essential ways: 1) the single field; 2) the unified field; and 3) the collection of disciplines or specialties banded together as an administrative unit on the grounds of historical ties and expediency (Dressel and Lee, 1963, pp. 89-94). In the beginning, home economics was a single field and all students took the same courses. As the profession grew and knowledge developed the home economics program at many institutions of higher education moved toward the unified field concept with some areas of home economics basic to other areas. Emerging as the profession grew was the collection of majors or discipline specialties. There are now in many home economics institutions of higher education three or four identifiable sets of specialties: Foods and Nutrition, Clothing and

Textiles, Child and Family Development, and Applied Art and Housing (Dressel and Lee, 1963, p. 93).

Home Economics in the present era may be regarded as made up of (these) four relatively distinctive disciplines or groups of majors

In a series of statements Dressel and Lee stress with some urgency the need for home economics to define its central focus.

The most critical problem now facing those involved in home economics . . . seems to be the lack of a consensus concerning what ought to be if it is to have an integrity of its own and a program different from the instruction offered by other related departments (Dressel and Lee, 1963, p. vii).

It is clear . . . that a more comprehensive study is needed . . . to clarify the mission or missions of the whole home economics enterprise within the academic community and in the larger sphere of American society (Dressel and Lee, 1963, p. ix).

The claim to an "anchor of relevance" in the family is at present primarily a value commitment and is, therefore, a tenuous one to support. It is not evident in some home economics . . . curricula . . .

. . . if home economics is to emerge as a strong unified field and recognize as such by other disciplines, its claims must be buttressed by high-level research, by development of systemized bodies of knowledge and theoretical constructs, and by systematic application of these in the attainment of better solutions to problems involving food, clothing, and shelter, human needs and the relational aspects of family life (Dressel and Lee, 1963, p. 106).

This publication represents a more systematic and sophisticated look at matters related to the central focus of Home Economics/Human Ecology. It is also an important work because it is sponsored by an agency outside the vested interests of the profession and is, therefore, presumably a more objective report.

While Jeannette Lee is identified with the home economics profession, her role is defined as under the direction of Dr. Paul L. Dressel, Director of the Office of Institutional Research at Michigan State University and affiliated with the Institute of Higher Education, Teachers College, Columbia University.

"A New Look at Home
Economics"--1964

"A New Look at Home Economics," was the theme for the December, 1964 issue of The Bulletin of the National Association of Secondary School Principals (pp. 3-97).

There are ten articles in the collection, nine of which were written by home economists who were involved with either home economics in the secondary schools or in higher education.

The overall impression is that the writers were attempting to spell out what this group felt were the important roles of home economics subject matter in the secondary school. Home Economics is "improved family living" (pp. 15-27), education for employment (pp. 28-37), a subject for students with special needs (pp. 39-44), a force in home-school relationships (pp. 45-50), and a worthy concept based curriculum subject (pp. 51-65). The strength of the subject is through evaluation and continued research (pp. 66-72). The central focus of home economics in this context emerges as a concern for the welfare of the family and the individual's homemaking role (pp. 13-14; 15-16; 39; 41-42; 51-52; 70-72; 80; 95-96).

Focus--1966

Focus was prepared by the Home Economics Subcommittee of the Extension Committee on Organization and Policy of the American Association of Land-Grant Colleges and State Universities. It is designed as a guide for Extension home economist and as a challenge to that group to design meaningful programs for specific clientele (Focus, 1966, p. 5).

The central theme of Home Economics/Human Ecology is both implied and referred to directly in this publication. The best summary of how this organization perceived the central theme in this publication is found in the last statement of the text:

"Extension's Focus is--
THE FAMILY
in community and nation."
(Focus, 1966, p. 25)

The Changing Mission of Home Economics--1968

Earl J. McGrath, Director of the Institute of Higher Education, Teachers College, Columbia University, along with Jack T. Johnson, Associate Dean of Arts and Science, Indiana State University, were commissioned in the mid-60's to undertake a study of home economics by the National Association of State Universities and Land-Grant Colleges. This study was aimed primarily at defining the future role and scope of home economics in member institutions.

It was at a time when there was some question concerning the continuing existence of home economics as a professional educational

unit which prepared practitioners for specific occupations. This was given some support by members of the profession and was a view that asked whether home economics had exerted the leadership necessary to keep the profession abreast of the emerging needs of society.

While the questions both from within the profession and without were valid, the facts uncovered by this report indicated a demand for home economists that will, they predict, increase indefinitely. The existing and prospective employment opportunities of primarily teachers, dietetics, business and extension personnel will be transformed by the major social trends of internationalism and expanded social welfare.

Again, as in the Dressel and Lee document of 1963, there is a sense of urgency conveyed that extensive expansion and/or reorganization of education in the field of home economics is unavoidable. The message throughout the McGrath report is: new ideals and goals need to be pursued that fit present and future needs. These alone will not assure a flourishing future. "Only a searching review of the purposes of home economics, its teaching functions, its research programs and its public services in light of the social conditions of our time will fill the present requirements" (McGrath, 1968, p. 507).

The central focus of the discipline is approached from the standpoint of the instructional aspects of home economics in higher education as mainly professional preparation and expanded employment opportunities. The curriculum, according to McGrath's findings, should seek to be more general rather than specialized.

Home Economics must decide whether it wishes to be a field with a common core of professional education . . . or whether it wishes to be a collection of disparate specializations with little in common and clustered around the rather nebulous concept of "home and family life" (McGrath, 1968, p. 508).

Research as part of home economics in higher education was found to be extremely limited and concentrated in a few institutions. Forty-two per cent of the 533 research projects under way at the time of this study were in the area of foods and nutrition (McGrath, 1968, pp. 58 & 60). This imbalance has complex meanings and is one of the impediments for the development of a broad scholarly base and tends to cloud the clarification of a central focus for the field.

Stating that home economics serves the home and family as have other reports up to this time, is too vague, according to McGrath. While this nebulous value focus may be a unique one, it is not sufficient to meet the demands of defining the profession's philosophy, theory, research, curriculum and action strategies with quantitative and qualitative precision. According to this study, the purpose and mission of home economics should be re-examined in the light of the changing conditions of modern life brought about by scientific and technological advance and a global outlook that includes service to all manner of families. A broader and higher level of service in cooperation with other disciplines should be a top priority. Home Economics should be viewed as " . . . a systematic and comprehensive understanding of the family and community" (McGrath, 1968, p. 90).

"National Goals and Guidelines for
Research in Home Economics"--1970

The most recent formal report on home economics sponsored by the Association of Administrators of Home Economics is "National Goals and Guidelines for Research in Home Economics" (1970). Under the direction of Jean Davis Schlater the " . . . primary purpose of this study was to establish major goals which would indicate the scope and strengthen the research base in home economics" (Schlater, 1970, p. 7). Five mission-oriented goals are delineated:

- I. Improve the conditions contributing to man's psychological and social development.
- II. Improve the conditions contributing to man's physiological health and development.
- III. Improve the physical components of man's near environment.
- IV. Improve consumer competence and family resource use.
- V. Improve the quality and availability of community services which enrich family life (p. 7).

The project goals "reflect the continuing commitment of home economics to the family and to the interaction between man and his near environment" (Schlater, 1970, p. 7). The McHale Ecosystem model was used as a framework to clarify three task forces which were to define broad research goals and related problem areas. The three systems are: Bio-Physical, Psycho-Social and Technological.

This report represents a leap forward in clarifying the central focus of the discipline. The terminology attempts to view the family in the near-environment and related to the global ecosystem in a more precise manner. One of the many important contributions of the study is its encouragement to professionals in the field to

engage in research to develop a sound theoretical base for Home Economics/Human Ecology. It is also a statement that reflects the crucial concern to make the profession more relevant to the present and future needs of the family as an ecosystem.

The Eleventh Lake Placid
Conference--1973

In October, 1973, the American Home Economics Association sponsored the Eleventh Lake Placid Conference at Lake Placid, New York. The invitational meeting is summarized in a twenty-one page report published by the Association. The questions and statements indicate that, to name some of the major issues reported: the definition, focus, role, name and values are as important as were these concerns in the original ten Conferences.

The following are some excerpts of importance to this study:

Home economics needs to clarify its scope and goals. Home economics can be defined as the science of dealing with the individual and how he practically manipulates his social environment, or his domestic space (p. 2).

We should reaffirm Ellen Richards' definition of home economics Our focus should be on the family in its broader definition and on the relationship of the family to the environment. The focus of home economics is on the relation of man to man, man to things, and man to the environment (p. 2).

The goal of home economics should be to mature as a profession with a sense of identity that is built around meeting human needs, finding unity with diversification, and seeking a common core of values, competences, ways of articulation (p. 3).

It is essential that we define and clarify the scope of home economics in order to interrelate with other disciplines (p. 5).

On the content-process continuum, we should move from the content end toward a meshing of content into an integrated core which will be, in truth, a new discipline The ecological systems approach could provide the integrating framework for developing (organizing) the content of knowledge underlying educational services Unlike most other disciplines which are defined by boundaries within which its practitioners must work, home economics is multidisciplinary and incredibly sophisticated in design. By trial and error we have developed innovative interdisciplinary administrative structures. We should be aware of our impressive achievement in this (p. 6).

In the Category of the DISCIPLINE, These Actions are Thought To Be Important: Identify our unique body of knowledge; develop clear conceptual framework; "finish the French Lick start;" show the philosophical coherence between home economics concepts; adopt an ecological systems conceptual frame; develop a model showing interrelatedness and commonalities in home economics; set priorities for concepts to be taught; identify different levels of attainment (p. 15).

The Conference again clearly states that the profession has many important tasks to which the energies of the social system should be directed. And the central focus of the discipline is stated as a concern for the family and the individual in the near environment.

Summary: How Do the Historical Documents of
Home Economics/Human Ecology Define the
Central Focus of the Discipline?

Home Economics/Human Ecology has a series of published official and unofficial statements concerning its central focus. A

selection of the publications available have been reviewed. The question of what is the central focus of Home Economics/Human Ecology is a fundamental issue that is in need of resolution to facilitate the progress of the field's maturity.

Marjorie Brown has observed that a field of study is concerned with sound comprehension of reality and rational means are sought to understand all the elements. Rational maturity is sought in the development of the field in the following ways:

Analysis of areas of inquiry indicates that there are several characteristics, not mutually exclusive, which seem to be associated with rational maturity in a field:

- 1) clarity regarding the central focus of the field,
- 2) coherence in the conceptual structure of the field,
- 3) definition and analysis of the basic elements of the field,
- 4) use of well-defined methods of study appropriate for comprehending reality in the field,
- 5) reliability of the products of workmanship in the field, and therefore, general agreement among competent students in the field and
- 6) avoidance of absolute claims to reality and exclusive ways of comprehending reality (Brown, 1967a, pp. 1-2).

Therefore, it is important that the scholarly base of the field be made explicit and that some degree of agreement within the profession be reached as to what constitutes the central conceptual organizing focus of the discipline.

Traditionally, home economics is one of the applied fields and has sought to make its unique focus the family in the environment and the family as an environment. Home Economics/Human Ecology synthesizes knowledge from the physical, biological and social sciences to that ends.

The interaction of the three (the family, individual members, and the society) needs to be viewed in defining the valued ends of the field of home economics (Brown, 1970, p. 13).

This represents a highly sophisticated study of the synthesis and application of a number of interrelated concepts. The key to the comprehension of this focus is as a synergy or an organic whole.

At the beginning of the century a group of far-seeing men and women . . . took a long and searching look at families and their needs and became convinced that knowledge and understanding of the basic needs of families should be acquired, and that this knowledge could be directed toward implementing changes that would result in improved family well-being. They believed that through the application of science it was possible to control the physical and social environment of the home in such a fashion that mankind would be benefited.

Although the basic definition of the nature of the field remains essentially the same, emphasis today is placed on the "reciprocal influences (interaction) between human behavior and the material substances." The approach is ecological--a search for understanding and controlling the mutually sustaining relationship that couples man with his environment (Paolucci, 1970, pp. 1 & 3).

There is evidence of contradictions in the present content of home economics and in the technology-craftsmanship of the field as it is practiced (Lee and Dressel, 1963; Brown, 1967b, p. 772; McGrath, 1968). There are also areas of content in home economics which appear to be irrelevant to the historical stated central focus. Acceptance of an explicit central theme may mean, therefore, a reorganization of content and a repudiation of some concepts that are now held. New questions need to be asked to gain fresh insights in order to develop a sound foundation and to meet the field's claim as a unique discipline and profession. Further, the implicit as well as the explicit statements about home economics represent an organization which has not yet gained consensus among the members of the

social system of the profession. The problem of interpretation is one concrete way to judge the effectiveness of a field's focus and the commitment of Home Economics/Human Ecology to an organized synthesized whole.

The world is changing at a pace that man has not experienced before. Common sense is changing. Cognitive and technical tools are also changing (Kuhn, 1970). Man's orientation to and relationship with the environment is changing because there are environmental changes. These are never in a social vacuum. To look at man in a fast-moving world, cognitively complex persons are needed (Brown, 1970, pp. 4-5 and 26-27).

The goal of the profession, to create and disseminate knowledge for the welfare of the individual and the family, must be looked at in relation to the long-range consequences as well as the short-term expediencies. The willingness and ability to re-direct one's energies toward more productive approaches when previous ones are unproductive are necessary for those who are concerned with practical applied problems. The willingness to take the psychological risks in order to gain new perspectives, to admit less than certainty, and to conceptualize and try new schemes are necessary for those whose performance is grounded in something other than mere habit.

CHAPTER III

THE CENTRAL FOCUS OF THE DISCIPLINE: A CONTEMPORARY ISSUE

In Chapter II the central focus of the discipline of Home Economics/Human Ecology was clarified through a review of a series of historical documents. The focus has been defined as follows:

Throughout the history of home economics, education and research programs have focused upon man's well-being, with special emphasis on the family (Schlater, 1970, p. 2).

The family as a life support system is dependent upon the natural environment for physical sustenance and upon the social organizations which are related to man's humanness and give quality and meaning to life. Home economists for some time have emphasized the social-emotional environment. It is necessary for the field (as it focuses on the family) to link both the natural environment and the social environment. Therein lie its uniqueness and strength (Hook and Paolucci, 1970, p. 316).

The next link in seeking to clarify the central focus of the field in more explicit and precise ways was to identify some of the changes presently taking place in Home Economics/Human Ecology. The first phase of the empirical procedure was an analysis of some recent documents from fifteen institutions of higher education offering Home Economics/Human Ecology. These writings were examined to determine some changes taking place in the profession. This aspect was conducted from October 1972 to February 1973. For details concerning the content analysis see Appendix A.

The Content Analysis

The primary objective of the content analysis was to critically review some examples of recent developments in the profession by examining some selected documents. Fifteen institutions of higher education offering Home Economics/Human Ecology that appeared to have undergone name change and/or organizational restructuring were identified.¹ The criteria for selecting the institutions polled were:

1. Units that appeared to have undergone or were undergoing change as indicated by the name of the administrative unit.
2. Size of the institution was considered to include units of varying enrollments.

To identify some of the major themes that are emerging in organizational restructuring and name change, a letter soliciting such information was sent in the Fall of 1972 to each of the fifteen universities identified as the sample (See Appendix A). The documents forwarded were systematically reviewed and the contents were coded (See Appendix A for a summary of documents). Ten sets of documents were received.

¹U.S. Department of Health Education and Welfare, Office of Education, Bureau of Adult, Vocational, and Technical Education, Division of Vocational and Technical Education, Washington, D.C. "Heads of Home Economics Teacher Education in Institutions Approved by State Boards for Vocational Education for the Training of Vocational Teachers of Home Economics" (Revised Summer of 1972).

For the purposes of this study, the content analysis focused on statements which reflected philosophical and organizational concerns of the institution. Berelson's comments are appropriate:

In the communication process a central position is occupied by the content . . . communication content is the what Since the content represents the means through which one person or group communicates with another, it is important for communication research that it is described with accuracy and interpreted with insight . . . a scientific method has been developed . . . (it) is called content analysis (Berelson, 1954, p. 488).

(Content analysis can be used) to identify the intentions and other characteristics of the communicators This has been a major use of content analysis. The basic logic of this application of content analysis is this: The content has such-and-such characteristics, therefore, the communicators have such-and-such intentions (Berelson, 1954, p. 498).

Content Analysis: The Method and Analysis

Berelson identifies three basic steps in content analysis:

- a) Define the unit of analysis (Berelson, 1954, pp. 507-509).
- b) Definition and categorization of the universe (Berelson, 1954, pp. 510-512).
- c) Evaluation through quantitative and/or qualitative statements concerning the central communication process (Berelson, 1954, pp. 512-518).

The specific objectives of this content analysis were:

- a) To review the available documents forwarded from the institutions of Home Economics/Human Ecology that have undergone

name and/or organizational change to facilitate the identification of some conceptual ideas or themes.

- b) To ascertain on the basis of the sample of materials if there is evidence of some consistency in the emerging ideas and themes identified.

The Code and instructions can be found in Appendix A.

Berelson cites four problems of content analysis as a research method: The problem of counting, the problem of reliability, the problem of sampling and the problem of inference (Berelson, 1954, pp. 512-518). This content analysis represents one source of information of the overall design of this study. The sampling was neither large nor representative enough to justify careful counting of the coded materials. The results are meaningful only in relation to the total design of the study. The findings of the content analysis, while found to be reliable between two coders, was not of sufficient quantity to produce clear objective and precise results. The materials analyzed, therefore, do not meet Berelson's criteria necessary for counting. The results have been used to identify four inferential patterns about the central focus of discipline of the field.

The reliability of the coded materials was checked by an objective coder. The dependability of these results refers to the accuracy specific to the sample of documents being evaluated but not necessarily to the purpose for which the evaluation was done.

Therefore, the reliability check means that given the instructions for coding the results between coders is consistent.

The validity or truthfulness of the coding is implied because the coding that was defined appears to have served the purpose for which it was intended: to determine if there are some consistent patterns, concepts or themes that are emerging between administrative units offering Home Economics/Human Ecology in higher education. The outside criterion on which the implied validity is based is the results of the Ecological Systems Framework Opinionnaire Packet Questionnaire (See Chapter V). The inferential patterns found in the content analysis were found to be consistent with that survey data.

The independent coder was chosen using the following guidelines:

- 1) The independent coder should be an initiated professional with a Ph.D. in an area of study considered to be Home Economics/Human Ecology;
- 2) a professional familiar with some of the changes taking place in Home Economics/Human Ecology;
- 3) and a professional recommended by two or more initiated professionals.

Dr. Nancy Harries, Researcher, Consumer and Food Economics Institute, Agricultural Research Service (USDA), Federal Building, Hyattsville, Maryland was chosen as the independent coder. The

objectives, the code, the instructions and the materials forwarded from the ten institutions were given to her in the fall of 1973. The results of the reliability check indicated that in relation to the objectives of this content analysis, there was consistency between coders approximately 95% of the time.

The purpose of this survey of documents of colleges and universities offering Home Economics/Human Ecology undergoing changes was viewed as one link in clarifying the central focus of the discipline. The content analysis was not intended to be a comprehensive survey of the available materials. While this is identified as a worthy study for the future, the problem of sampling for this study does represent a small, tentative and to some degree, static picture of what appears to be a fast moving multidimensional multiloop scenario. The universes Berelson notes should be relevant considerations of a content analysis and these have been met to a limited degree by the sample size.

In summary, since the most important outcomes of this content analysis were the qualitative statements extrapolated from the ten sets of materials, the four problems of content analysis are dealt with to some extent by the consistency found between the content analysis and the results of the Ecological Systems Framework Opinionnaire Questionnaire. The inferences derived from these two parts of the descriptive data are amenable to further testing by other methods that directly apply to the data.

The Findings

The profession is changing. The content analysis gave some clear evidence that both major and minor transformations are taking place. The inferential findings of the content analysis indicated some of the substance of the changes that are taking place with regards to the organization of the administrative unit, the organization of the curriculum and the underlying philosophical changes, some of which were implied and some explicitly stated.

It should be noted that what is not published may be as important as what is printed. What information is chosen to be disseminated by members of the social system can, therefore, act as a mediating force for a profession.

A well planned and analyzed survey has an important place in the research efforts of Home Economics/Human Ecology. The principle contribution then is in describing current practices or beliefs with the goal of using the present to predict and make long range plans. This study illustrates the need for such systematic descriptive studies about what is happening to the profession as it is changing. What degree of consensus does the profession need in order to be identified as Home Economics/Human Ecology? Is there a conceptual consistency between the different members of the social system of the profession? How much human and material resources should the profession devote to these kinds of issues?

Four general patterns were identified from the coding. Two ideas that emerged that could not be categorized included the

observation that one unit did not consider their college a college of home economics. Another respondent was concerned that Home Economics appears to be an institutional construct rather than a conceptually based discipline. While implied in some of the documents forwarded, these views were specifically mentioned in correspondence.

Inferential Pattern One: Frameworks or Models are Being Used

Abductive models are implied in many of the documents. The most highly refined are evident in the materials forwarded from the University of Maryland, Michigan State University, Cornell University, the University of Guelph and Pennsylvania State University. From the materials available, the models did not appear to be consistent between these institutions. The abductive stage of development would seem to imply a hierarchy with regards to the way the social system is ordered and the concepts that are considered to be the central focus of the discipline. The implication of a hierarchy may or may not be intended but from the available documents it is difficult to sort out whether the social structure of the specific university is different from the social structure perceived of as the profession and then how this ordering of the organization of the administrative unit and the curriculum affects the interpretation of the discipline and the profession. Since these institutions are initiating new professionals it would seem to be an important issue with

regards to the identity of the macro-view of the total social system of Home Economics/Human Ecology.

Inferential Pattern Two: The Language Used to Describe Change is Used in Unique Ways for Each Institution

The language used to talk about the organizational and philosophical changes is the heart of the content analysis. When coding the available documents it was apparent that the language used appeared to be interpreted and defined by each administrative unit in unique ways. The meaning to this writer was that the terms that were being used had shared meaning only in the immediate social system and, therefore, one of the subtle barriers for Home Economics/Human Ecology to deal with is the way language is being used. The language does reflect the changes that are being wrought in the institutions of higher education and would seem to point out the urgency for the profession to clarify operational and theoretical definitions so that meanings of symbols within the social system are precise and used in consistent ways.

Inferential Pattern Three: The Use of Language Reflects a Naivete About How Knowledge is Generated

There are a number of examples that could be used to illustrate how the documents coded used language in a way that reflects a naivete about how knowledge is generated and used in an applied

scientific enterprise (Gouldner, 1969, pp. 85-98). Further, this comes through in the image or map that is implied by the stated goals of the institution and the implied consequences of these on the larger social order of the profession.

One unit states that it is organized around "thought" and discipline orientation and reflects the struggle to categorize the complex ideas from "National Goals and Guidelines" (Schlater, 1970). These goals are to be the model of the institutions organizational and philosophical bases. The central ideas appear to be there but a question is raised about the level of the enterprise from which this is taken as well as that being talked about and the cognitive tools to consistently implement these beliefs (Blackburn, 1973). Is it feasible or reasonable to take a report like, "National Goals and Guidelines for Research in Home Economics," and implement it as the basis of an administrative unit's total organization (Schlater, 1970)? Are such decisions based on abductive, deductive and inductive research?

Another illustration of this is the way that the client is depicted in some of the materials. The picture is one that, for example, shows the consumer as in need of being protected and the language connotes that this is the ends of the scientific study of the consumer for the profession. Rather than viewing the consumer as a user in the multi-loop system, the "life" of the product is seen to end when the consumer purchases an article and the consumer as a person appears to be a manipulated defenseless irrational ploy. The role of the professional home economist is to save them. How does

such an image affect the way that the profession initiates professionals, generates and uses knowledge in the scientific enterprise as well as defines the central focus of the discipline?

Inferential Pattern Four: The Reasons are Usually
Given for Changing or Not Changing the
Administrative Unit

Reasons are usually given by an administrative unit for changing the organizational and/or philosophical orientation. The diversity of these is of importance for this study. While they represent only an indication of what may be happening on the broader horizons, the reasons coded are thought provoking.

Reasons for Changing

There seems to be four kinds of reasons given for changes in the administrative unit:

- a) Pressures from the immediate academic community;
- b) Pressures from the alumni and/or community at large;
- c) Pressures from the students and/or faculty of the administrative unit;
- d) for image purposes that include the audiences in (a), (b), and (c).

Reasons for Not Changing

Reasons for not changing the organizational or philosophical orientation are not as clearly stated. "A department should not presume to include as extensive a program and the same kind of divisions as a larger administrative unit" (Code 2, page 2). And the same administrative unit indicated that since the departments essentially were a cooperative unit of people and since it all seems to be working, why change (Code 2)?

The tentative statements implied from an examination of the ten sets of available documents indicated, therefore, that organizational changes are not necessarily made with regards to conceptual or philosophical considerations. The reasons for change are usually a complex of pressures from a number of sources and the motivation for investing human and material resources of the unit to the task of change are primarily political and economic issues.

The reasons cited for changing are not consistent between institutions and the inferential pattern that emerged is that there is fragmentation between units as well as within institutions. The most important body to confirm and approve of the profession's contribution is the immediate academic community and thus some of the units are highly individualistic in their orientation and interpretation of Home Economics/Human Ecology. Given the pressures on the administrative units of higher education for changes, how individualistic can the reasons and the changes be and still be considered as part of Home Economics/Human Ecology? Have the individualistic

changes taken place because the profession has not stated the focus of the discipline clearly?

Conclusions

Because the ten institutions which sent materials for the content analysis provided such a diversity of materials and the sample size was limited, the coding results yielded four inferential patterns. The value of this aspect of the study is to provide an informational link to facilitate the continued evolution of the central focus of the discipline as a contemporary issue facing the profession.

In 1972 the American Home Economics Association formed a committee to assess the changes in home economics units of colleges and universities in the past ten years. A summary of their findings was recently reported in the Journal of Home Economics (Weis, East, Manning, 1974, pp. 11-15). Some of the efforts of this committee complement the review of historical documents as well as the content analysis of this study. The value of the Weis et. al. research is that the empirical results of their survey provides some different and related statistical information. It is hoped that additional studies concerned with ascertaining the state of change in Home Economics/Human Ecology will build on these studies to provide a more comprehensive view of the state of all the dimensions of the profession.

The questions raised by the content analysis are important for such continued efforts.

1. What is the consistent theme, focus or concept of Home Economics/Human Ecology in the 1970's?
2. Why is the literature about Home Economics/Human Ecology not being systematically produced and disseminated in order to explore the many issues related to the macro social system of the profession?
3. Why is some of the literature that is produced appear to be defensive in tone and primarily geared for the uninitiated student, academic community and/or for public relation purposes?
4. Why are some of the reports produced of a quality that reflects a profession with a low standard of excellence?

The most consistent theme of these materials was the inconsistencies between the institutional units surveyed. From the contemporary documents coded from the ten units of higher education of Home Economics/Human Ecology which appeared to be undergoing changes, the central focus of the discipline that is evolving appears to be an abductive comprehension and emphasis on the individual and the family in the near environment. This focus is in need of being made explicit in more precise ways.

CHAPTER IV
THE DEVELOPMENT OF THE ECOLOGICAL SYSTEMS FRAMEWORK:
AN EVOLUTIONARY STAGE IN THE CENTRAL
FOCUS OF THE DISCIPLINE

Introduction

Having a central focus of attention delimits a field of study, provides a basis upon which the conceptual structure is organized and clarifies the unique contribution of a field in relation to other professions. It is an assumption of this study that Home Economics/Human Ecology has a central focus that is evolving and that this central focus is in need of explication in a more precise way. In the past this has meant that there has been uneven attention to component parts, minimal attention to the concept of the family as a whole system and the central focus has been viewed in an essentially static format (Brown, 1964a, 1967b, 1970; Quilling, 1970).

The objective of this Chapter is to build on the synthesis from Chapter II and III to propose the next evolutionary stage in the development of the central focus of the field. Complementary developments in science are integrated to move the comprehension of Home Economics/Human Ecology's focus from the abductive to the deductive level of logical reasoning. This study is viewed as one link in a

series to which the profession needs to commit resources to assure the systematic development of the field.

The end goal of an applied science is to seek to systematically investigate a phenomenon for the purpose of revealing its true nature. It is interested in both the properties of the phenomena and the relations existing among these properties which explains the action or behavior taking place. Primary attention is given to each part and the relations among the properties since it is from these that the scientist is able to achieve his ultimate goal: prediction of both short term and long range consequences. The phenomena must be studied objectively so that the generalizations spring from data and not from personal bias. Thus over time a body of theory, research and technology of the applied science emerge (Brown, 1967, p. 772).

In the case of an applied science the ends of each one is unique but there is a common structure to the intellectual organization. This can be viewed as an open system of integrated and interacting parts that consist of the profession's philosophy, research, theory, curriculum and practice (technology-craftsmanship). It is assumed that the person being initiated into the profession understands each of the parts as well as the image of the whole of the system. One way the dimensions of the profession can be pictured can be seen in Figure 2.¹ This model will be used in this study.

Sigmund Nosow defined all established professions as having evidence of the following community attributes:

¹See also Figure 7 in Chapter VI.

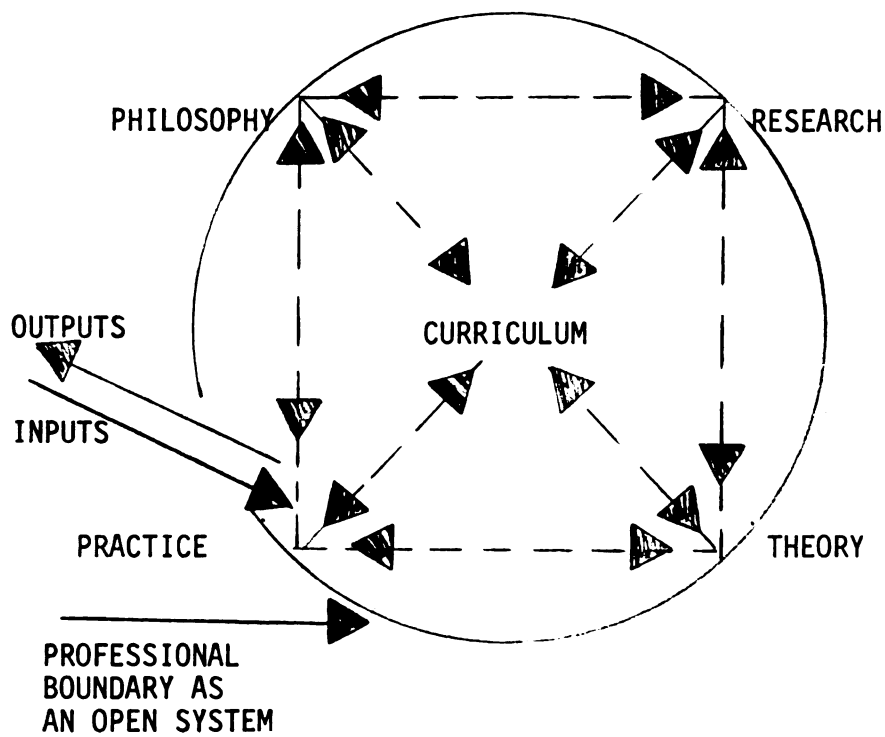


Fig. 2.--Dimensions of an Applied Scientific Profession

- 1) Its members are bound by a sense of identity.
- 2) Once in it, few leave, so that it is a terminal or continuing status for the most part.
- 3) Its members share values in common.
- 4) Its role definitions vis-a-vis both members and non-members are agreed upon and are the same for all members.
- 5) Within the areas of communal action there is a common language, which is understood only partially by outsiders.
- 6) The Community has power over its members.
- 7) Its limits are reasonably clear, though they are not physical and geographic but social.
- 8) Though it does not produce the next generation biologically, it does so socially through its control over the selection of professional trainees, and through its training processes it sends these recruits through an adult socialization process.

In the case of home economics Marjorie Brown has noted that it is a profession in the sense of a folk concept of "profession." "This indicates that it is field where practitioners in the profession draw from areas of complex knowledge to provide practical services which society needs" (Brown, 1970, p. 2). The assumption is that the practical services that are needed are services to families.

Since service to families is different from dis-service to families, I am assuming that home economics is a "helping" profession and that the end product of this helping is that identified in the constitution of the American Home Economics Association: ". . . the attainment of the well-being of individuals and families, the improvement of homes, and the preservation of values significant in home life" (Brown, 1970, p. 2).

. . . basic scientists are not as scientists concerned with the practical use of their field of knowledge. On the other hand, home economists are concerned as home economists with the practical uses of scientific knowledge to control limited parts of the environment for the welfare of humankind. This is analogous to the practical use of scientific knowledge in other professions, such as medicine, social work, engineering, teaching, and counseling (Brown, 1967b, p. 772).

The discipline of a profession is its center of theoretical and empirical activity which, in essence, is a profession's central focus.

The family, as the primary focus of study in earlier stages of home economics, embodied in its rural orientation and traditional setting a series of functions performed through well established traditional roles. Home economics in its intellectual efforts was primarily concerned with the traditional roles of women (Nosow, 1964, p. 7).

Home economics has shifted in intellectual and empirical focus from a complete identification with the traditional functions of the family to continued interest in the family within the wider frames of reference presented by the behavioral sciences, and to an interest in a wide number of institutionalized areas which are only peripherally related to the individual and the family. The results have made it difficult for home economists to relate their entire professional membership to one intellectual focus and have created problems of identity for all within the profession. This brings us to the question of just what a home economist is (Nosow, 1964, p. 9).

The discipline of Home Economics/Human Ecology manifest as a profession represents a social system. It is a kind of culture.

Rogers' has defined such a system as follows:

A social system is a collectivity of units engaged in joint problem-solving with respect to a common goal To the extent that the units in a system are differentiated from each other, structure exists in the system. So social structure is the degree of differentiation in a social system on the basis of social status, power, or other variables Because communication occurs between a source and receiver who are members of a system, the communication process is affected by the system's structure (Rogers, 1971, p. 10).

Home Economics/Human Ecology as a field is manifest in its disciplinary focus, professional services and as a unique social system. The Ecological Systems Framework, hereafter referred to as

ESF, is being proposed as the next evolutionary stage in the development of the central focus of the discipline to guide the profession's social system toward its goals. It is an elaboration of the comprehension of the history of the field and seeks to move the scholarly base from the abductive to the logical-deductive stage. Such a refinement can then facilitate the empirical-inductive development of the central focus of Home Economics/Human Ecology. The ESF, therefore, represents one of many stages in this process.

Home economics is a recognizable profession with certain rights and prerogatives accorded the profession by the community. It has a history, a culture, a common membership, a procedure for entrance into the profession, and some control over this entrance. It has an organization and through it and its sub-organizations articulates with related professions.

What is lacking in home economics is a common focus or definition which will continue to strengthen the bonds of membership. The centripetal forces engendered in increasing specialization and the segmentalization of the profession suggest that there are a number of diverse focuses which are tending to fragment the profession into various sub-professional categories (Nosow, 1964, p. 12).

The Integration of a Related Scientific Revolution in the Evolution of the Central Focus of the Field

Thomas Kuhn has recently noted that when a radical change takes place in science there is a change in paradigm (Kuhn, 1970). And that the fundamental change is a movement from one model to another. A paradigm is a symbolic abstraction and like a map, one level of reality. Once adopted, therefore, it has an immense

influence on the quality of the work done with it. It is a highly significant underlying foundation of science.

Explanations

Explanations entail a patterning of variables and their logical relationships such that given the stated interactional rules, the phenomena to be explained would reasonably result when the variables are given assigned values. The lesson is to seize on the intuition of patterning in a phenomena and turn these insights into testable and tested theory. The theory or explanation provides a logically related set of variables entailing a whole phenomena. Its interest lies in its power to predict outcomes when properly loaded and its logical cohesiveness is a relationship that can be specified. The applicability is bounded by the range of phenomena for which it has explanatory power. A discipline or profession viewed this way is a set of patterned variables of elements whose logical relationship entails the phenomenon whose explanation is its central focus of concern. One of the assumptions of this study is that the present paradigm of Home Economics/Human Ecology is a partial reflection of its explanation.

When a framework or paradigm of the central focus of a discipline is complete it is a superior explanatory tool and implies that the conception of explanation is compatible with an evolutionary view of human knowledge. The quality of the explanation about

Home Economics/Human Ecology is being proposed in relation to new insights about scientific explanation.

General Systems Theory (GST)

When one thinks of "revolutions" in contemporary North America what comes immediately to mind are the social and political struggles being waged by various oppressed groups. It is not generally recognized that a parallel revolution is occurring; this one in the scientific realm and is equal in scope and implications to the social revolution described in the daily press. This scientific revolution is associated with various terms: cybernetics, information theory, communication theory, simulation, game theory and so forth. While each of these terms refers to a specific and distinctive orientation or method, they are all related to a branch of research and theorizing commonly called General Systems Theory (GST).

The GST orientation is a tool. It is a science of organizing and organization and a way of thinking about living systems. The focus of attention is on the metabolism of matter-energy and the metabolism of information. It is a movement from looking at phenomena in a linear cause-effect model to a process, structure-elaborating, multidimensional view of man and man in his environment.

GST has a rich and lengthy heritage. Aspects of it can be traced to Aristotle who stated in Politics that a state is composed of villages, which are in turn made up of households, which contain

families (Kim, 1969). Conceiving of things in terms of wholes and interrelated parts is a basic concept in the GST framework.

The modern systems approach dates back little more than twenty or thirty years to the early work of Ludwig von Bertalanffy (1950, p. 256-258), Norbert Wiener (1948, 1967), and Shannon and Weaver (1949). Of these, only Bertalanffy was directly concerned with system theory per se, but all shared an interdisciplinary orientation and a concern for organization and communication.

GST has been greatly influenced by developments in related fields. Bertalanffy, a theoretical biologist (1950); was joined by Kenneth Boulding, an economist (1956); J. G. Miller, a psychiatrist and psychologist (1955); Ashby, a bacteriologist (1958); Rapoport, a mathematician (1956) and a growing list of persons representing a diversity of formal training and academic affiliations. The development of GST has profited from concurrent theoretical elaborations in cybernetics, information theory, game theory, graph and network theory in mathematics to name but a few of the sources from which stimulation has been drawn and to which GST has made contributions.

GST is essentially a shift in the study of man and his environment from a concern for the relatively stable substance and qualities, to analysis of a more shifting structure. The focus has moved to view the particularly fluid nature of the structure of a system and to differentiate between the thin conceptual line of "structure" and what is called "process" (Buckley, 1967, p. 5). This new approach is seen as significantly more appropriate and adequate than previous models dominating scientific thinking.

The mechanical-equilibrium school of thought views man and the environment in which he lives as likened to an elaborate machine. Analogies appropriate to such a premise have served to limit and distort reality (Sorokin, 1928, pp. 3-62; Buckley, 1967, p. 5).

The organismic-functional model of man and his environment draws analogies in social thought from organic metaphor. This approach was inspired during a period when there were advances in biology (Spencer, 1897; Buckley, 1967).

The functionalist's appeal to the organismic analogy further drives him to overemphasize the more stable, over-determined, and supported normative aspects without which dynamic analysis is impossible (Buckley, 1967, p. 15).

In essence, the model is inadequate to deal with and to reflect the realities of the human sector.

Other models have found a place in the history of scientific social thought in the western world but for this discussion the next significant one is the "process" model. It is an early 20th century phenomena under the leadership of the so-called "Chicago School." Essentially it is congenial to and even anticipative of, basic principles of cybernetics. It " . . . views society as a complex multifaceted, fluid interplay of widely varying degrees and intensities of association and dissociation" (Buckley, 1967, p. 18). The insights of this abstract construct have been to conceptualize the sociocultural systems as inherently structure-elaborating and in the process of change.

The "process school" is a bridge to the present revolutionary view of man. Studying the physical and living world by studying

systems, sub-systems and supra-systems is an established method. GST is a distinct focus of study, however. Of the so-called global theories the one initially stated and defined by Ludwig von Bertalanffy in 1947 under the title GST, has taken hold. Since that time the approach is constantly being refined, modified and applied (Bertalanffy, 1968).

The natural environment is a prime example of GST. To systematically observe the process of ecological succession of a terrestrial/aquatic pond ecosystem is to become aware of the intricate and interwoven cycles that consist of a series of stages from a pioneering community to a climax community. Man is increasingly creating the environment around him and in the process upsetting these natural cycles. Because the feedback systems are so complex and mutually causal, man is not yet fully cognizant of the total consequences of his present or past actions.

For example, Odum states that:

We may summarize the story of man and nature by looking ahead. The future can be divided into alternatives according to energy supplies. There is the future of power expanding, the future of power constant, and the future of power receding. National and international planning task forces should be assigned to each of these three contingencies.

We are not now sure which future will be next: Perhaps they will follow each other in a step-by-step sequence.

These energy alternatives concern survival and should probably demand far more of our national attention than the status symbol of space travel We have energy now to plan for the future, but later there may be no excess calories (Odum, 1971, p. 304).

The sociocultural-human world that man has created is an interwoven fabric of interdependent connecting strands. Neither is nature to be compartmentalized nor is man a simple list of categories. Consequently, it is not farfetched to assume that in spite of our current fragmented sciences, there are generalizations that over-arch the conventional categories connecting what is now often unconnected (J. G. Miller, 1965 & 1971).

The Ecological Systems Approach (ESA)

GST applied as a means for studying the human organism, populations of human organisms as environment and in relation to the natural environment is defined as the Ecological Systems Approach (ESA) (Auerswald, 1968). It is a unique way of viewing the world and it is an approach that presents a unifying, holistic model that means that all sciences have the potential to be included in order to present an accurate picture of an ecological system (Auerswald, 1968).

The ESA . . . changes the vantage point of the data collector. It focuses precisely on the interfaces and communication processes taking place there. It begins with an analysis of the structure of the field, using the common structural and operational properties of systems as criteria for identifying the systems and sub-systems, it insists that the structure, sources, pathways, repository sites and integrative functions of messages become clear in addition to their content . . . this, plus the holistic nonexclusive nature of the approach, minimizes the dangers of excessive selectivity in the collection of data and allows for much more clarity in the contextual contributions to analysis. And the steps which follow, including prescription and planning of strategies and techniques, gain in

clarity and are more likely to be rooted in concrete realities (Auerswald, 1968, p. 204).

In addition:

At the level of theory . . . the ESA, by clarifying and emphasizing the interfaces between systems, allows for the use of a variety of theoretical models which have to do with interactional processes and information exchange. These models form bridges between the conceptual systems of single disciplines. Information theory, crisis theory, game theory, and general communication theory . . . represent some of the bodies of research and knowledge which become useable in an integrated way (Auerswald, 1968, p. 204).

There is, of course, the danger of expecting too much of this "new" cognitive tool. Systems theory and theorizing about issues having only metaphysical consequences even if cloaked in metalanguage of mathematics, for example, can be used foolishly. On the other hand, unless the exploration is attempted we may not be able to verify even its most obvious possibilities.

System Structures

A System

Since the GST/ESA orientation is a reaction against viewing man in a fractional or simple additive way, the concern is with the general, the aggregate, and the organized backdrop in which events occur. The key assumption is that every part of the system is so related to every other part that any change in one aspect results in the dynamic change in all other parts of the total system (Hall and

Fagen, 1956). The term system implies wholeness and is considered to be some whole form in structure or operation, concepts or functions, composed of united and integrated parts with some common properties in continuous activity (Bertalanffy, 1956, p. 3; Grinker, 1967, p. 370; Churchman, 1968, p. 11; J. G. Miller, 1971, p. 281). These arbitrarily defined sets of interdependent parts work together towards a common purpose such that the parts can be labeled, their boundaries defined, and their functions specified.

According to J. G. Miller:

The structure of a system is the arrangement of its subsystems and components in three-dimensional space at a given moment of time. This always changes over time. It may remain relatively fixed for a long period or may change from moment to moment, depending upon the characteristics of the process in the system. This process halted at any given moment, as when motion is frozen by a high-speed photograph, reveals the three-dimensional spatial arrangement of the system's components as of that instant (J. G. Miller, 1971, p. 284).

The relationships that tie the structure of the system together makes the notion of system useful in that the relationship to be considered in the context of a given set of objects or concepts depend on the problem at hand.

Subsystems or Components

The components of a whole system can be conceptually divided. Subsystems are defined by J. G. Miller as

. . . one sort of unit, each of which carries out a distinct and separate process and another sort of unit, each of which is a discrete, separate

structure. The totality of all the structures in a system which carry out a particular process is a subsystem (J. G. Miller, 1971, p. 288).

And to identify a subsystem's structure the process it carries out needs to be analyzed.

There is no one-to-one relationship between process and structure. One or more processes may be carried out by two or more components The concept of subsystem process is related to the concept of role used in social science Certain processes are necessary for life and must be carried out by all living systems that survive or be performed for them by some other system. They are carried out by . . . critical subsystems (J. G. Miller, 1971, pp. 288-289)

Suprasystem

The suprasystem of any living system is the next higher system of which it is a component or subsystem. Therefore, every system has a suprasystem except the universe.

The suprasystem is differentiated from the environment. The immediate environment is the suprasystem minus the system itself. The entire environment includes this plus the suprasuprasystem and the systems at all higher levels which contain it. In order to survive the system must interact with and adjust to its environment, and the other parts of the suprasystem. These processes alter both the system and its environment. Living systems adapt to their environment and in return mold it. The result is that, after some period of interaction, each in some sense becomes the mirror of the other (J. G. Miller, 1971, p. 288).

Boundary

The boundary of a system is the region separating one system from another whose function it is to filter or select inputs and outputs (Buckley, 1968, p. 433). It can be distinguished by some difference in the relationships existing among the components within the boundary compared with relationships which occur across the boundary. Some boundaries are linked with other boundaries to form a greater system. Systems whose boundaries are interfaced implies an abstracted space relationship that is greater than linkage and a source of vitality for the systems that transport inputs and outputs from one boundary to another.

The conception or image of the family as an ecosystem is an example of defining the boundaries of this grouping and its environment in a more precise structure. The ecosystem is a set of mutually interdependent organisms and their environment, whose mutual existence depends upon the presence of each other and thus implies a particular region that when functioning normally selectively filters, admitting desired inputs and blocking out excessive, dangerous or unwanted inputs (See Figure 3). All open systems have many gaps in them through which matter-energy and information can pass as inputs and outputs and the family perceived as an ecosystem is an example of this (J. G. Miller, 1965, p. 342; Hook and Paolucci, 1970).

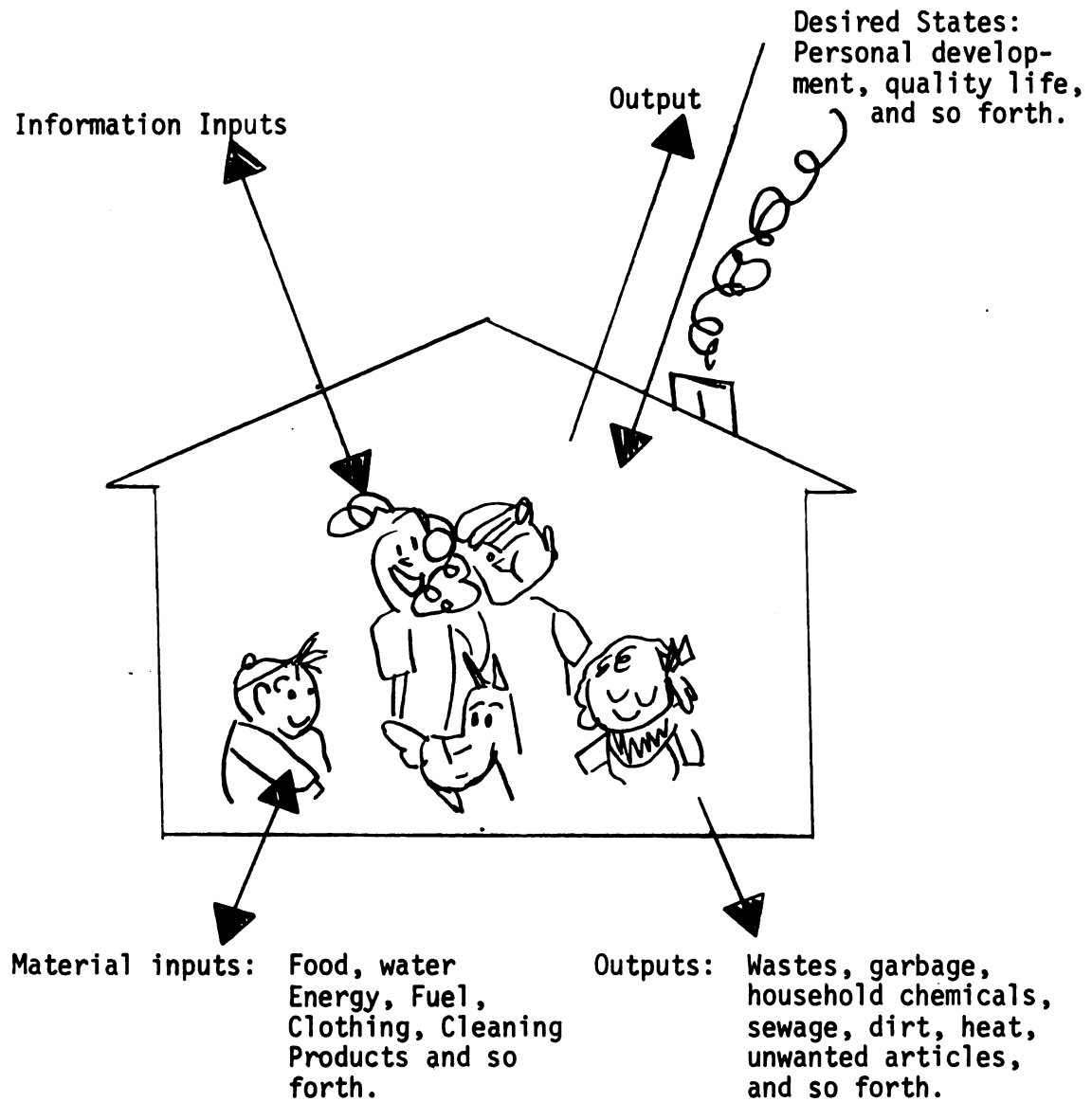


Fig. 3.--One Life-style of the Family as an Ecosystem
Illustrated as an Inpyt-output System

Environment

Systems, subsystems, and suprasystems are embodied within physical, spacial, temporal and sometimes symbolic sets of conditions called environments. The characteristics of the environments affect the system which interact with them and are in turn affected by those systems. Churchman (1968, p. 63) has noted that some environments constitute a set of conditions that can be relevant but not necessarily directly under the influence of a system. Some suprasystems and suprasuprasystems would thus be described.

The immediate (or near) environment is the suprasystem minus the system itself. The entire environment includes this plus the suprasuprasystem and the systems at all higher levels which contain it (J. G. Miller, 1965, p. 218).

So the near environment are those conditions that are closest to the organism and, therefore, tend to have a more immediate daily effect. The distal environment is linked to the near environment and in an abstract sense forms concentric circles around it.

Levels of Analysis

Systems level ranges from the individual organism in the context of the organization through the simplest interpersonal system (the dyad), to the group (which could be formed on the basis of work relationships, communication relationships or in other ways), the organizational division, or the entire organization (Farace and Russell, 1971, p. 3). The level of analysis at which an investigator

enters a system is arbitrary and dictated primarily by perception(s) and goal(s).

Upon entry into a system, clarifying the level of analysis is a crucial aspect of using the GST/ESA as a tool. Suprasystems are composed of systems, systems composed of subsystems composed of sub-subsystems and so on ad infinitum. Alternately the levels of analysis can be conceived of as a hierarchy of encompassing systems ranging from the simple to the complex (Boulding, 1956b, p. 60).

Viewing a whole system from one point of view may be useless from another so that explicitly defining the appropriate level of analysis is a critical aspect of the structure of the system under study. There is no single level that is right for all purposes and each level of analysis highlights some phenomenon and obscures others.

What are the criteria for distinguishing any one level from the other? They are derived from a long scientific tradition of empirical observation of the entire gamut of living systems. This extensive experience of the community of scientific observers has led to a consensus that there are certain fundamental forms of organization of living matter energy (J. G. Miller, 1971, p. 285).

Examples are as abundant as one can think of them. Studying the organism as a family in the near environment can be seen from a number of different perspectives depending on the level of analysis that is chosen. The organism as family can be viewed as a whole aggregate group, from the perspective of each organism, from the vantage point of an institution of society, as affecting and being affected by the near and distal environment. Each level has a

concept of the system that is appropriate for some purpose based upon the organized images of the meaning of the whole (Boulding, 1956a).

So the way a system, subsystem, boundary and environment are defined depends upon the level of analysis that is selected and that decision depends upon how the goal or situation is conceived of in the first place. This is an extremely important point and one that draws upon systems thinking to explain systems thinking and involves the codeterminacy between the individual's mind and his reality.

One procedural rule in systems theory is that every discussion should begin with an identification of the level of reference and this should be a consistent constant throughout the discourse unless specifically stated.

To summarize:

Systems at the indicated level are called systems. Those at the level above are suprasystems, and at the higher level, suprasuprasystems. Below the level of reference are subsystems, and below them subsubsystems (J. G. Miller, 1971, p. 285).

Emergents or Synergy of Multidimensional Human Systems

Emergents (J. G. Miller, 1971, p. 287) or synergy (Buckley, 1967, p. 13) is a characteristic of the structure of more complex systems to manifest qualities more than the sum of the individual units or components. Significant aspects of living systems at higher levels, such as human systems, are neglected if described only in terms and dimensions that are used for simple and two dimensional

systems: in essence, the whole of the structure is greater than the sum of its parts.

System Processes

The Living System

Living open systems are units of living things and their openness is a matter of degree at any given moment in time. These open systems exist through continual exchanges with the environment (Bertalanffy, 1968, p. 32). And they maintain themselves through a continual input and output, a building up and a breaking down of the parts (Bertalanffy, 1968, p. 39). This process is known as metabolism. J. G. Miller (1965, p. 338; 1971, pp. 307-308) classifies the critical subsystems whose processes every living system must have if it is to survive as follows: those involved with the metabolism of matter-energy, those involved with the metabolism of information and those involved with both. An open system's boundary is permeable to matter-energy and information flows. "An untold variety of such transmissions, following many paths and controlling a multitude of variables, are needed for even the simplest living cell" (J. G. Miller, 1965, p. 340).

All change over time of matter-energy or information in a system is process Process includes the ongoing function of a system, reversible actions succeeding each other from moment to moment. Process also includes history, less readily reversed changes

like mutations, birth, growth, development, aging and death; changes which commonly follow trauma or disease; and the changes resulting from learning which are not later forgotten . . . there is a circular relation among the three primary aspects of systems--structure changes momentarily with functioning but when such change is so great that it is essentially irreversible, a historical process has occurred, giving rise to a new structure (J. G. Miller, 1971, p. 284).

A system is open if some exchange of matter-energy and information takes place between the organism and the environment. The exchange, transaction or flow process can occur without disrupting what the organism experiences as coherence. In other words, the organism interacts with and is influenced by the environment but not always in ways which destroy the stability or equilibrium of the organism. A closed system, on the other hand, is self-contained and is not influenced by the environment. Matter energy and information do not penetrate from the outside. Since no actual living system is completely closed, systems are either relatively open or relatively closed.

The living systems are a special subset of the set of all possible concrete systems, composed of the plants and animals. They have the following characteristics:

- a) They are open systems.
- b) They use inputs of foods or fuels to restore their own energy and repair breakdowns in their own organized structure.
- c) They have a certain minimum degree of complexity.
- d) They contain genetic material . . . (and) is the template--the original "blueprint" . . . of their structure and process from the moment of origin (J. G. Miller, 1971, p. 282).

The concept of process views the events and relationships of the open living system as dynamic, on-going, ever changing, continuous. There is neither a beginning nor an end and always a relatively fixed sequence of events. It is not static or at rest and the ingredients within a process interact; each affecting and being affected by the other. This dynamic reciprocal process does have some limitations. There is more than one dynamics that can be developed for nearly any combination of events. There is recognition that certain things may precede others and in most cases the order of precedence will vary from situation to situation.

To discuss the phenomena of process, therefore: 1) the dynamics of the process must be stopped as if looking at one frame of a moving picture and 2) it is necessary to use language, as if it were part of the process. To perceive the stop-frame picture of the process, it is important that it is a representative of the event and not the event. That is, it is merely a map that can be used to guide in exploring the territories of the real world.

Language is changing and on-going. This quality is usually lost when it is written. Marks on paper are recordings of language or a picture of language and tend to seem fixed, permanent and static. The language of GST/ESA is important because it seeks to create an image of the world that attempts to reflect that it is part of the process.

There is no alternative if process is to be analyzed: it must be a more or less stop frame reference point and it must use language in process to describe a process. Obviously, everything

cannot be included in one presentation of a big idea or concept. Limitations of discussing process also include some of the following: things that are talked about do not have to exist in exactly the way they are talked about, ideas do not have to operate in the order in which they are talked about, objects that are separated may not always be separable and they may never operate independently (Forrester, 1971).

It is the blending of the complex dynamic interrelationships among the ingredients developed in the process that determines whether a whole synergy has been developed. The concept of interaction or more precisely, morphogenesis and morphostasis, are the key to an understanding of process and the concept of reciprocity. The dynamic movement which relates to the ingredients is vital. Using the concept of process is important because it leads to greater insights into what it is and the reflections such useage can bring to our images of the world in space and time. It prevents the viewer from supplying easy formulas about human events and promises an approach that is more reflective of living systems. GST/ESA applied to the Ecological Systems Framework operates like a tool that is a means for focusing on multiple multi-loop and multi-dimensional events taking place simultaneously or consecutively or other combinations of sequence and rates with different importance and different affects. It means that extended and diverse kinds of awareness can be focused on to consider a new view of the world and some predicted possible short-term and long term consequences mapped.

Morphogenesis--Morphostasis: Feedback Systems

Open living systems that are in process undergo an increase in organization and a decrease in entropy since the system interacts and exchanges matter-energy and information with their environment (Bertalanffy, 1968, p. 150). All systems are open and interact with their environment but not all exhibit the same degree of openness (Watzlawick, 1967). From different initial conditions the same state may be reached in different ways. This characteristic is termed "equifinality" (Bertalanffy, 1960, p. 142 ff). This holds that, in ontogenesis, for example, a final normal adult state may be reached by a number of devious developmental routes. Morphogenetic processes go even further and suggest an opposite principle that might be called "multifinality": similar initial conditions may lead to dissimilar end-states (Maruyama, 1963).

Magorah Maruyama has proposed a conceptualization of system feedback processes for complex organizations such as the family as an ecosystem which he refers to as "the second cybernetics," since positive rather than negative feedback is involved (Maruyama, 1960; 1963). The following quote describes not only his concept but a sense of the scope of application of the "first cybernetics."

Since its inception, cybernetics was more or less identified as a science of self-regulating and equilibrating systems. Thermostats, physiological regulation of body temperature, automatic steering devices, economics and political processes were studied under a general mathematical model of deviation-counteracting feedback networks.

By focusing on the deviation-counteracting aspects of the mutual causal relationships,

however, the cyberneticians paid less attention to the systems in which the mutual causal effects are deviation-amplifying. Such systems are ubiquitous; accumulation of capital in industry, evolution of living organisms, the rise of cultures of various types, interpersonal process that are loosely termed as "vicious circles" and "compound interest". . . since the deviation-counteracting (morphostasis) type has predominately been studied up till now under the title cybernetics, let us consider its studies the first cybernetics, and call the studies of the deviation-amplifying (morphogenesis) mutual causal relationships "the second cybernetics" (Maruyama, 1963, p. 164).

These concepts differ from the less complex terms of negative and positive feedback processes. The implication of mutual causality is more than the previous notion of a one-way process. According to the refined framework, feedback is understood to imply at least a two-dimensional and mutually causal relationship involving two inter-connected systems and the system becomes one of multilateral mutual causality. Such mutually causal relationships also involve a transactional process approach, mutual control and manipulation, a set of rules to generate information and the interaction between the components (Buckley, 1967, p. 125, 128-130, 160; Maruyama, 1960 and 1963).

In the light of the deviation-amplifying mutual causal process, the law of causality is now revised to state that similar conditions may result in dissimilar products Only when the size of influence in one direction has an effect upon the size of the influence in the other direction and is in turn affected by it, is there a mutual causation (Maruyama, 1963, pp. 167 and 175).

The fundamental nature of the mutually causal system, subsystem, suprasystem is so basic and complex as to defy mastery by generations of men who have sought to institutionalize (family,

church, schools) the balance between the individual and the multi-person system. What to do with plurality and diversity are still vexing questions that haunt modern man more than ever. While most of our institutions reflect a morphostatic perspective, there is a need for deviation amplifying ones. The GST approach is a way of conceiving and coping with some of these sorts of issues and illustrates that we must look again at what we are about. It is the luxury of planned change that will afford the opportunity of using this powerful tool to conceive of man with fresh insights.

In summary, the morphostatic process stresses equilibrium, homeostatis and negative feedback that are conserving, deviation counterbalancing. Examples include homeostatic processes in organism and rituals in the sociocultural realm (Buckley, 1967, p. 59). Morphogenesis stresses the structure-elaborating processes of deviation-promoting, positive feedback and is central to understanding higher level systems. Examples of this would include biological evolution, learning and societal development (Buckley, 1967, p. 59). It is a conceptualization within which the genesis, maintenance or change of a social structure like the organism as family may be perceived and organized. "The continual shifting of the environment and internal milieu guarantees a continual 'cycling' of this process, leading . . . to an accumulation of structural and processual complexity" (Buckley, 1967, p. 128). The organism as family in their ecosystem is one example of such a complex adaptive organization of components.

Function: The Purposes or Consequences of the System's Process

The concept of the process of a system includes the notion of the function it serves over time. From the field of communication and the study of the family this component of process can be viewed from a number of different angles (Pitts, 1964, pp. 51-124; Nye and Bernardo, 1966, p. 30, 61, 63; Hill and Hanson, 1968, pp. 485-498; Berlo, 1970, pp. 1-11; Broderick, 1971, p. 3-23; Farce and MacDonald, 1971). Although there is a loose consensus as to the meaning of the term function, two approaches seem most appropriate for this study.

Talcott Parsons (1949) defined the functional pre-requisite for a system as (1) providing the minimum biological and psychological needs--survival, (2) maintaining order--continuation, and (3) giving adequate motivation--growth. Berlo (1970, pp. 8-9) clarifies the function served by communication in a system as (1) production, getting the job done; (2) innovation, exploring new behavioral alternatives; and (3) maintenance of the social system. This requires the maintenance of the self-concept; interpersonal relationships with other components of the system; maintenance of the production and innovation functions within the system; and the maintenance of the rules of the communication system.

For the purposes of this study the function of the system will be characterized as the reciprocal action, activity, performance and consequences that the whole system carries out or processes over time. The variables of function will be those described by Berlo (1970) because they can be interpreted as synonymous with the

broader interpretation of function given by Parsons (1949) and because Berlo's categories have been developed in more detail. Extrapolation is thus made more explicit and, therefore, application is made with greater ease.

In summary, for the purposes of this study the function of a system will refer to the purposes or consequences that the organization is to achieve. The specific dimensions of these functions are defined as (1) production, (2) maintenance, and (3) innovation. It means that the function of a system can be viewed directly or the effects of the function(s) can be observed. The function of a system is an internal construct that carves up the purposes of the ongoing processes. Said another way, function is the purpose of the processes of the structure of a system.

History

History is more than the passage of time. It also involves the accumulation in the system of residues or effects of past events (structural changes, memories, learned habits). A living system carries its history with it in the form of altered structure and consequently of altered function. There is a circular relation among the three primary aspects of systems--structure changes momentarily with functioning (process) but when such change is so great that it is essentially irreversible, a historical process has occurred, giving rise to a new structure (J. G. Miller, 1971, p. 284).

The accumulation and evolution of knowledge and therefore the history of a profession is not merely the difference between messages

taken in and the messages given out. It is not like a reservoir but like an organization which grows through an active internal organizing principle much as the gene is a principle or entity organizing the growth of bodily structures. In the growth of images or frameworks, knowledge facilitates the growth of an inward teacher as well as outward messages. Thus the outward "teaching" is through cooperating with the inward teacher so the image has an opportunity to have a history and grow. Basically the Ecological Systems Framework is a picture of the evolution of knowledge about the profession and is a means for the profession to discuss the historic growth of its central image in explicit ways.

Conceptual, Concrete and Abstracted Systems: Varieties of Systems

Defining the System Variety

A system is the sum or aggregate of components. GST/ESA views the dynamics of a system as involving or possessing the dimensions of structure, process and history. A further distinction is discussed by J. G. Miller (1971, pp. 281-284) and he categorizes systems as specific types: conceptual, concrete or abstracted. The broad term system implies that the units or components of the system have some common properties which are essential if they are to interact or have relationships. Each unit is constrained by, conditioned by or dependent on the state of the other units.

A conceptual system is:

. . . units of a conceptual system are terms, such as words, . . . numbers, or other symbols, including those in computer simulations and programs
 A relationship of a conceptual system is a set of pairs of units, each pair being ordered in a similar way Relationships are expressed by words . . . or by logical or mathematical symbols . . . which represent operations The language, symbols, or computer programs are all concepts and always exist in one or more concrete systems, living or nonliving, like a scientist, a textbook, or a computer (J. G. Miller, 1971, pp. 281-282).

A concrete system is defined as:

. . . a nonrandom accumulation of matter-energy, in a region in physical space-time, which is organized into interacting, interrelated subsystems or components The units (subsystems, components, parts, or members) of these systems are also concrete systems . . . (and) the living systems are a special subset of the set of all possible concrete systems, composed of the plants and animals (J. G. Miller, 1971, p. 282).

An abstracted system is described as:

The units . . . are relationships abstracted or selected by an observer in the light of his interests, theoretical viewpoint, or philosophical bias. Some relationships may be empirically determinable by some operation carried out by the observer, but others are not, being only his concepts (J. G. Miller, 1971, p. 283).

All three meanings of "system" are useful in science. "A scientific endeavor may appropriately begin with a conceptual system and evaluate it by collecting data on a concrete or on an abstracted system, or it may equally well first collect data and then determine what conceptual system it fits" (J. G. Miller, 1971, p. 284).

The proposed Ecological Systems Framework is an abstracted system using related concepts that is an explanation of a logically

related set of synthesized variables that constitute a holistic phenomenon. Its interest lies in its power to organize the components or units of the conceptual system. Its logic lies in the specified relationships and the applicability is bounded by the range of phenomena for which it can help organize. An applied area of study like Home Economics/Human Ecology seen this way is a set of patterned concepts which have a logical rational relationship as the center of activity and attention.

The Logical and the Empirical of an Abstracted System: Two Developmental Processes

It has begun to be recognized that the explanatory power and thus the value of a discipline depends on the model that is used explicitly to order the central or basic phenomena to which a profession attends (Kuhn, 1970). In rendering the conceptual system explicit, it means that it is more likely to be testable and the goal of such inquiry is explanation. An abstracted conceptual system thus exposed is more likely to evolve to be implemented as a complementary concrete system. Scientists may disagree strongly about the role of evaluation or normative judgment in inquiry, about the criteria that an explanation must meet, or about the way in which explanation is best achieved, but the search for explanation and for the descriptions on which explanation depend, is widely accepted as the prime goal of systematic inquiry.

Explanation can be defined in another way that fits the scientific enterprise of a profession. Scientific inquiry asserts that scientists seek intellectual instruments that permit understanding and control of phenomena. Control is a central factor in the scientific enterprise. The criteria of adequacy or completeness, use and purpose to control events can be realized by mapping the conceptual structure and processes of an area of study.

To explain then means that a particular conception of the process of explanation is that it conforms well with what is actually happening. To study explanation as it occurs in science is to look at an activity that has neither a beginning nor end. Every exploration of the process of systematic inquiry of the structure and use of the human conceptual apparatus must make use of that apparatus.

The problems confronting a methodologist have been likened to the dilemmas facing anyone trying to rebuild a ship while at sea. This analogy is useful because it illustrates how some parts of the conceptual apparatus must be stabilized, taken as given, if other parts are to be explored and it also implies the futility of seeking to annihilate the past and somehow found knowledge on an entirely new base. The Ecological Systems Framework is an evolutionary conception of the central focus of the profession of Home Economics/Human Ecology. GST/ESA have been used as means whereby such a logical elaboration can be developed. What is implied, therefore, by these considerations is that the conception of explanation must be compatible with an evolutionary conception of human knowledge. The quality of an explanation is not a fixed and definitive matter.

Explanations are produced by modification and improved by restructuring, amendment, amplification and/or clarification and not by radical re-creation. The use that is made of an explanation, the relation of the explanation to our experiences, determines its quality. In the Ecological Systems Framework, there is a need for a planned conscious linkage between two distinct developmental processes: an empirical inductive description and a logical deductive conception. The present ESF cannot solve the inductive problem but it can provide a way of avoiding it altogether without making the explanation lose its strength. That is, the separation of the empirical and the logical aspects of the explanation. The merger of the logical and the empirical tends to blur the distinction between competence and the possession of field-relevant knowledge. The viewpoint of this study is that the adequacy of an explanation cannot be judged solely on logical grounds but a combination of logical and field relevant empirical knowledge. This study, therefore, represents only one step in the developmental process of the explanation of the central focus of the profession: the logical deductive explanation or the Ecological Systems Framework. Each type of competence has its own role to play in explanation and raises its own problems requiring its own criteria. The separation of the logic of a system from the empirical evidence calls attention to the need for both kinds of knowledge and reduces the possibility that either might be ignored (Deutsch, et. al., 1971).

By defining one aspect of explanation in logical terms in the Ecological Systems Framework a major transformation in conceptualization

is involved. The importance of the disciplines of GST/ESA lies in their use as a means to perform certain functions or fulfill certain purposes. Since man's capacity to know and perceive is limited, these can be augmented and amplified by use of such scientific tools. This study assumes that there is a need for a clear explicit conceptualization of the central focus of Home Economics/Human Ecology and, therefore, there is a need for some understanding of the kinds of tools that are needed to achieve that goal.

In summary, the Ecological Systems Framework is an application of GST/ESA. It synthesizes the knowledge about the evolution of the central focus of Home Economics/Human Ecology over time that suggests an abstracted conceptual map of the organism and the organism as family in an ecosystem. As a result it stresses the vantage point of the viewer from looking at parts of a system to perceiving an organic whole of the structure, process and history of the systems. The power of the ESF is to organize the conceptual components and their complex interrelationships as an open system. As a deductive logical explanation it has the potential to be used as a deductive tool and as a way of guiding the empirical-inductive development of the central focus of the discipline.

A Framework as a Means of Presenting the Ecological Systems Framework

The Ecological Systems Framework is presented as a framework because it is a visual means of mapping the organization of the basic

central focus of the discipline of Home Economics/Human Ecology.

There is nothing new in the use of models or framework to represent systems. The GST/ESA orientation, however, encourages the use of such images.

Each of us uses such maps constantly for decision making and each individual carries around an array of mental images of the world in his head. These, in turn, represent the selected concepts and relationships of real systems. A mental image is a model just as real as geographical or other kinds of symbolic maps are. The question is not whether to use or ignore abstracted frameworks but the question is which ones of all the alternative models should be used.

Forrester (1971, p. 54) has noted that any concept or assumption that can be clearly described in words can be incorporated in a computer map or model. The advantage then is that the model is explicit and the assumptions are exposed so that they may be discussed and debated.

For thinking about complicated ideas a framework can be a picture of a cluster of concepts and their interrelatedness. The purpose of a framework is to organize data which implies a sorting process of some kind. It is usually an outline then of some major phenomenon which includes leading ideas on the nature of the entities involved and the pattern of their relations (Boulding, 1956; Simon and Newell, 1963, pp. 79-91; Mortensen, 1972, pp. 29-65; Campbell and Hepler, 1970, pp. 9-27; Compton and Hall, 1974, pp. 9-44).

How Frameworks are Used

When thinking about and using concepts it is useful to have some form of mental shorthand. No two people ever see the same reality because reality is too complex. Shared meaning and objectivity are literally impossible. This is where a framework can facilitate a check upon at least some of the idiosyncrasies with which our perceptions abound. The various frameworks are like so many sets of eyeglasses. This is basically why frameworks can be useful. It can sort out and give order to a vast array of information.

But there is more to it. Knowing concepts or even knowing about frameworks, does not mean that a scholar is using a framework to advantage. It involves knowing of the existence and potentialities of several frameworks and deliberately selecting one rather than another because it best fits the level of inquiry, the subject matter and the point of entry with regards to the goal(s) of the investigator. If frameworks are spectacles through which we perceive complexities, then many pairs of glasses are necessary when moving around in a dark room while keeping in mind some of the many variables being sought.

A framework, then, is developed to picture how concepts would interrelate and provide a simplified map of reality. It enables a check to be made on a complex of events all together rather than piece by piece. In the beginning a postulational or deductive model is produced which explains most known data. Then this is tested by

experiment, or new data. It is as a consequence refined by being amended or replaced as the findings indicate. Thus sound and useful frameworks develop over time. The current status of such a framework should also be seen as one evolutionary phase of an ongoing development. The framework is as good as the results that it provides and should be valued solely for its utility as a scientific tool.

All sorts of concepts have had to evolve in the course of elaborating such frameworks and thus these have provided an improved intellectual tool kit for coming to grips with reality. Sophisticated uses of models have contributed to many scholarly fields and their endeavors. The important thing is that a wide range of frameworks be made available that are suitable for specific purposes and that their development be an ongoing process (for example: Christensen, 1964; J. G. Miller, 1965 and 1971; Nye and Bernardo, 1966 and 1973; Buckley, 1967; Barker, 1968; Hill and Hansen, 1968; Laszlo, 1969; Hook and Paolucci, 1970; Broderick, 1971; Forrester, 1971; Koenig et. al., 1971; Mannino, 1971; Odum, 1971; Schroder and Suedfeld, 1971; Compton, 1972; Brill, 1973).

The Advantages of Using Frameworks

Frameworks give their users certain advantages, if at a certain cost. In general, they provide an overall vantage point for reference. For example, a global cross-cultural view is easier to envision when using a framework. Frameworks come in various sizes.

Large scale frameworks are normally termed systems approaches (Meehan, 1965). Mini, medium and maxi models stand in relation one to the other as a master plan does to its component strategies. They are intended to enable focusing on the whole picture, frame and all. They have the potential of providing a gigantic framework of reference and a structured space within which other lesser-scale models can be superimposed and deployed (Koenig, 1971, p. 4).

The advantages of using frameworks can be summarized as follows: " . . . an organizational, or communicative function; heuristic, or research-generating function, and an anticipatory, or predictive function" (G. R. Miller, 1966, p. 80). To take advantage of these potentials it is crucial that the investigator clarify their goal(s) and some of their assumptions for choosing and using a particular framework.

: The Disadvantages of Using a Framework

Frameworks also involve disadvantages prominent among which is one that is sometimes described variously as the "iron law of perspective" (Kaplan, 1964) or "trained incapacity" (Veblen, 1899). Certain things are focused on only by turning the focus of attention away from others. Proportionately as the model rivets attention upon an issue from this angle or that, other angles, or things extraneous to the issue, go unheeded. Given the human faculties of cognition this inattention happens, framework or no framework and, in fact, only when using a framework is there an awareness that this is

happening. The problem is that perceptions and thus findings can be distorted by the pattern of sensitivities which the framework imposes. The price of using frameworks is eternal vigilance.

In summary, there are " . . . three potential shortcomings of models . . .--premature closure, symbol-behavior confusion, and oversimplification" (G. R. Miller, 1966, p. 80).

Summary

Basically, the case for frameworks is as follows: apparently the human organism tends to make some perceptual sense out of the stimuli that unceasingly bombard us by organizing them in various simplified forms. Part of this reporting, simplification or encoding stimuli is what we choose to perceive. When this is done consciously, with systematic rigor, it is called using frameworks. It is an approach that has potential. How much or how little is unknown until they have been tried and refined.

The Ecological Systems Framework

What the ESF Is

The Ecological Systems Framework is a model that has been synthesized as an abstracted comprehension of the overarching central focus of Home Economics/Human Ecology. The ESF represents a whole

system and the logic of this comprehension is included in the five primary objectives of this study. These can be summarized as follows: To propose the Ecological Systems Framework for Home Economics/Human Ecology as a synthesis of related sources to facilitate the clarification and organization of the concepts of the central focus of the discipline and to identify it as a unique field of study. It is being presented as a descriptive tool to guide the profession in the development of its specific dimensions: Philosophy, Research, Theory, Curriculum and Practice. The ESF is proposed as one stage in the evolution of the profession's overarching framework. The logical deductive stage that the ESF represents has the potential through systematically studying the propositions presented in this Chapter to lead to the inductive-empirical refinement. It is hoped that one outcome of this study will be the continued investment of human and material resources to define the scholarly base of the profession (Brown, 1967 and 1970; Quilling, 1970; Hook and Paolucci, 1970).

Recently, Hook and Paolucci discussed the relationship between man and his environment from the standpoint of the profession of home economics. Although there is a long history of concern with this relationship, the authors point out that home economists have tended to treat the environment in terms of food, clothing, and shelter, and the family in terms of relationships and the development of individuals. They have failed to give adequate consideration to the interdependency of the relationship between man and his environment, and have not, except in a limited way, paid attention to the environmental context of behavior. They have treated the family as though its functioning is in some way independent of its environment. Hook and Paolucci suggest

that the profession discard this "unifocal" view of the family and the environment and adopt an ecological model which views the family-in-habitat as an ecosystem. Such an approach requires that the profession understand and appreciate the complexities of the interrelationships between behavior within the family unit and the environment, and of the effects of the environment upon patterns of family relationships (Mannino, 1971, p. 1).

But what does the ecological approach involve? And how can it be applied to the practice of home economics, a profession that was founded on an ecological framework but which has subsequently greatly narrowed its focus? The present move toward a return to an ecological emphasis makes it appropriate to consider the possible effects of this emphasis on the profession, not only with regard to its traditional foci of practice, but also in terms of extending its reach into new areas (Mannino, 1971, pp. 2-3).

The Evolution of the Ecological Systems Framework for Home Economics/Human Ecology

The central focus of Home Economics/Human Ecology has been synthesized as the study of the relationship of man in his environment and as a social being. The human organism in the context of the family in an ecosystem is pictured as a system which can realize a quality life through rational means (Hook and Paolucci, 1970). The home economist perceives the mission of the profession as helping all families realize a quality life.

The profession has pictured this central focus in three frameworks that represent evolutionary changes in development.

Stage I: The Linear Framework

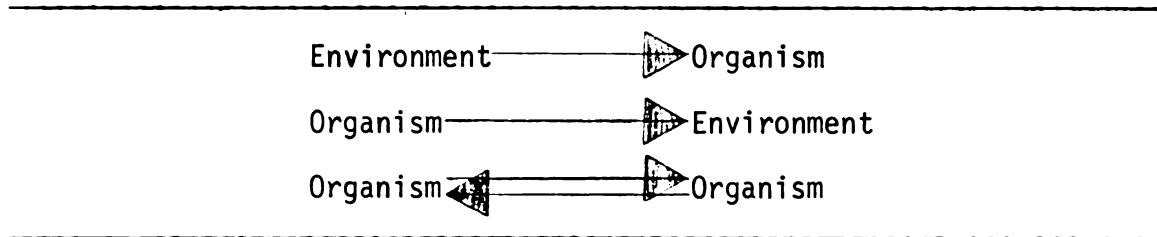


Fig. 4.--The Linear Framework

The Linear Framework pictured the central focus of Home Economics/Human Ecology in a format that connotes a direct cause-effect relationship in an essentially static and vague juxtaposition. The component parts are characterized as generalized and thus tend to obscure the meaning of the concepts.

Stage II: The Process Framework

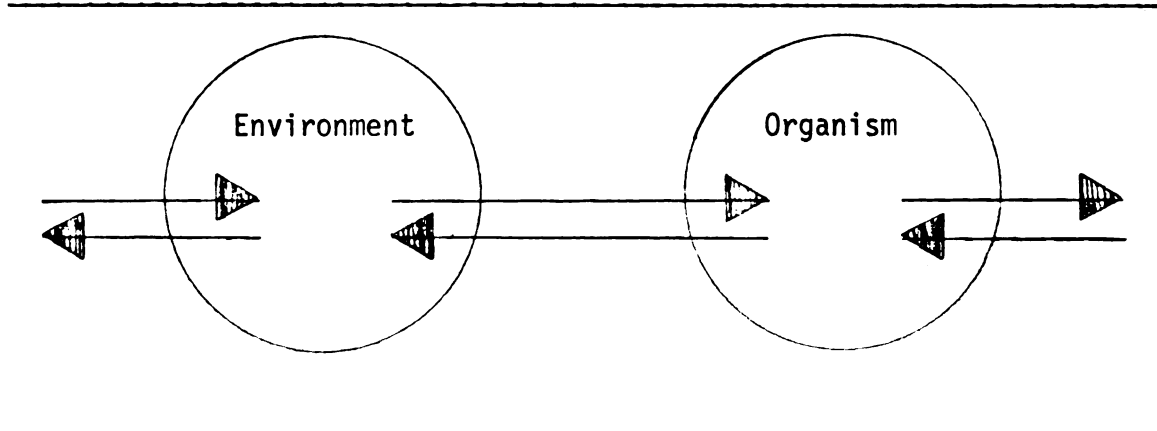


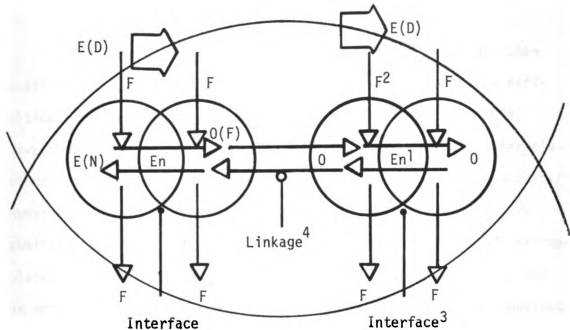
Fig. 5.--The Process Framework

The Process Framework pictured man as organism in relationship to the environment in a more dynamic way. It connotes the close relationship between these two dimensions as being affected by each other and affecting the larger environment. This stage represents a step forward in understanding the perception of the central focus of the discipline (Buckley, 1967, pp. 17-23). It is a shift in the study of man and his environment from a concern for the relatively stable substance and qualities to the analysis of a more shifting structure. Essentially the "process" approach is congenial to and anticipative of, basic principles of cybernetics. It " . . . views society as a complex multifaceted, fluid interplay of widely varying degrees and intensities of association and dissociation" (Buckley, 1967, p. 18). The insights of this conceptual construct have been to view the focus of the field as a system in the process of continual change.

Stage III: The Ecological Systems Framework

The Ecological Systems Framework builds on the Process Framework and evolves as a fuller comprehension of the central focus. The ESF has moved the focus to view the particularly fluid nature of the structure of the discipline as a holistic system and to differentiate between the thin conceptual line of "structure" and what is called "process" (Buckley, 1967, p. 5). This image of Home Economics/Human Ecology is seen as significantly more explicit, appropriate and adequate than previous frameworks. It is a way of perceiving the

STAGE III. The Ecological Systems Framework



KEY: $E(N)$ = Near Environment
 $E(D)$ = Distal Environment
 O = Organism (different systems levels)
 $O(F)$ = Organism as Family
 En = Energy¹
 F = Feedback Systems² (Complex input, output, exchange)

¹**Energy:** It is the interface and vitality of all living systems. The ultimate source of energy is the Sun. Energy can be defined in two broad categories: Matter-energy and Information. (See the Glossary of Terms)

²**Feedback:** Used here in the communication sense, as information returned to the sender of a message about the effect of the original communication. There are two kinds of feedback: Positive and Negative.

³**Interface:** In the context of this study the term is used to imply a relationship between two living systems that is an abstracted space relationship greater than linkage. An interface is essential to the vitality of two interacting open systems.

⁴**Linkage:** A term used to indicate that two systems are connected to form a greater system; it suggests a regularized pattern of interaction between the two systems which in a sense forms a bond between them.

central focus as a complex dynamic interrelatedness of the concepts with which the field is concerned.

The Characteristics of the Ecological Systems Framework

The rationale or fundamental reasoning of the ESF has been outlined. Briefly, it includes the historic and contemporary definition of the central focus applied and integrated with GST/ESA, developed in the context of a framework that organizes the interrelationships of the basic concepts to which the field of Home Economics/ Human Ecology focus their concerns. The characteristics that are outlined in the ESF as distinguishing traits and qualities are extrapolated from these foundations. The inferences and problems defined as propositions are also based on these variables within this defined known range. The ESF is a deductive product that takes the ideas of the known organization from the evolution of the linear to the process frameworks, hypothesizes on the basis of additional known information and then proposes the elaboration of the ESF as the next stage.

There is precedent for this kind of approach. It is an attempt to move from the abductive to the deductive to the inductive not as cause and effect reasoning but as a circuitous systematic movement from intuitive premises to logical known premises to the empirical-inductive to the intuitive and so forth. This study specifically seeks to move from the abductive implied premises to:

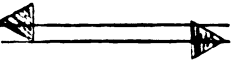
Reasoning-Deduction This step or activity is one that is frequently overlooked and underemphasized. In some respects it is perhaps the most important part of Dewey's contribution to the analysis of reflective thinking. The scientist now deduces the consequences of the hypotheses he has formulated. Conant, in talking about the rise of modern science, says that the new element added in the seventeenth century was the use of deductive reasoning. Here is where experience, knowledge, and perspicuity are important While this is a different form of thinking . . . it is important because of what might almost be called its heuristic quality. Reasoning can help lead to wider more basic, and thus more significant problems, as well as provide operational (testable) implications of the original hypothesis (Kerlinger, 1964, pp. 14-15).

The next process in the development, the inductive-empirical, has been summarized by Kerlinger as follows:

With the problem formulated, with the basic question or questions properly asked, the rest is much easier. Then the hypothesis is constructed, after which its implications are deduced, mainly along experimental lines. In this process the original problem, and of course, the original hypothesis, may be changed. It may be broadened or narrowed. It may even be abandoned. Lastly, but not finally, the relation expressed by the hypothesis is tested by observation and experimentation. On the basis of the research evidence, the hypothesis is accepted or rejected. This information is then fed back to the original problem and it is kept or altered as dictated by the evidence What is important is the overall fundamental idea of scientific research as a controlled rational process of reflective inquiry, the interdependent nature of the parts of the process, and the paramount importance of the problem and its statement (Kerlinger, 1964, pp. 16-17).

The ESF is a holistic comprehension and the system pictured has the built in understanding that the input of the individual organism is the output of the multi-person system, and conversely, the output of the individual system is the input to the multiperson

system. The relationship between the two is also reciprocal in the sense that the individual mind is both a producer and consumer of multiperson reality.

Man can and literally must organize himself through participation in energy systems that include information and matter-energy. Two levels of analysis must be considered to understand this and the manner in which systems at these two levels relate to each other. The first is the individual system pictured in the ESF as 0  0 and the second is the multiperson system pictured in the ESF as the Organism as Family 0 (F). The specific qualities of the ESF are described below.

The Structure of the ESF is Mapped:

- a) As having the characteristics of a system or a set of inter-dependent concepts working together toward a common purpose. The common or shared purpose is defined as the study of the human organism (any systems level) in the context of the ecosystem and in this context a quality life can be realized through rational means. The mission or implementation of the purpose is to help all families as a scientific concept to realize this. The components are labeled, the ecosystem boundary is defined, and the processes then can be identified.

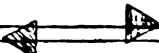
b) As subsystems and includes:

. . . one sort of unit, each of which carries out a distinct and separate process and another sort of unit, each of which is a discrete, separate structure. The totality of all the structures in a system which carry out a particular process is a subsystem (J. G. Miller, 1971, p. 288).

The ESF represents the (1) distinct and separate processes as morphogenesis-morphostasis; the interface relationship of energy; the linkage between the two related subsystems; and the metabolism of energy. (2) The units representing discrete and separate structures include the concept of the human Organism as O (any systems level), the Organism as Family as O (F), the near environment as E (N), the distal environment as E (D) and the ecosystem boundary.

c) With suprasystems and suprasuprasystems that in an abstract sense form concentric circles around and are superimposed on the ESF. These suprasystems are mediating processes that interact through and with the ecosystem boundary as an open system.

d) As the boundary of the system depicted as the ecosystem boundary and this boundary is an open system which defines the near environment of the set of mutually interdependent organisms whose mutual existence depends upon the presence of each other. The distal environment is linked and in some instances interfaced to the near environment's ecosystem boundary.

e) As having different levels of analysis: The level of analysis of the ESF ranges from the individual organism, 0, through the simplest interpersonal system (the dyad), 0  0, to the organism as family (any number), 0 (F), and all in the context of the ecosystem boundary.

f) As having the quality of synergy: The whole is greater than the sum of the parts.

The holistic arrangement of the synergy is perceived as having cohesion because it is an organization of:

- 1) Two or more organisms,
- 2) who recognize that certain goals can be achieved better through interdependent action and shared resources,
- 3) take in matter energy and/or information from the near environment (and to some degree the distal environment),
- 4) operate on them in some fashion,
- 5) modify and take in and return these inputs as outputs to the near and distal environment as waste, matter energy and/or information (J. G. Miller, 1971).

As this process occurs, relatively stable and regularized patterns develop and these energy patterns can be observed and predicted. The synergy implies that the organism as family and the organism are a complex identifiable organization of

interacting organisms with some common goals that lends some degree of cohesion and commitment over time and the sharing of resources and living space within the ecosystem boundary. The ecosystem boundary mediates between the organism (any systems level) and the larger distal environment.

The Process of the ESF is Defined:

- a) As an open living system that maintains itself through the process of metabolism. The ESF has three types of metabolism basic to the functioning of the ESF: 1) metabolism of matter energy, 2) the metabolism of information and 3) metabolism that requires both matter-energy and information (J. G. Miller, 1965, p. 338). Open systems like the ESF, where the same state may be reached from different initial conditions and in different ways, is termed equifinality.
- b) As having the qualities of morphogenesis (deviation-amplifying feedback processes) and morphostasis (deviation-counteracting feedback processes). Thus the ESF negative and positive feedback processes are in Maruyama's terms, one of multi-lateral mutual causality patterns (Maruyama, 1960 and 1963).
- c) As having functions or purposes that exhibit short-term and long-term consequences. The function of the ESF can be characterized as reciprocal action, activity, performance that the whole system carries out or processes over time.

The specific dimensions of the functions of the ESF are defined as those processes concerned with (1) production, getting the job done; (2) maintenance of the ecosystem, and (3) innovation, exploring new behavioral alternatives (Berlo, 1970, pp. 8-9).

The History of the ESF

The accumulation and evolution of knowledge about the profession is not merely the difference between the messages taken in and the messages given out. The ESF involves:

. . . the accumulation in the system of residues or effects of past events (structural changes, memories, learned habits). A living system carries its history with it in the form of altered structure and consequently of altered function (process). There is a circular relation among the three primary aspects of systems--structure changes momentarily with functioning, but when such change is so great that it is essentially irreversible, a historical process has occurred, giving rise to a new structure (J. G. Miller, 1971, p. 284).

The Abstract Arrangement of the ESF

The ESF represents a holistic comprehension of the overarching master plan of the central concepts of Home Economics/Human Ecology. The abstract arrangement or organization of the ESF synthesizes information from related complementary historic and contemporary resources. The arrangement of the ESF's structure, processes and history are organized to focus on the core of Home

Economics/Human Ecology and stresses the profession's need to view the " . . . interdependency of the relationship between man and his environment . . . (and) the environmental context of behavior" (Mannino, 1971, p. 1). The two basic systems of the ESF are represented as two linked systems: 1) the organism as family in an ecosystem and 2) the organism (any systems level) in relation to other organism and the multiperson system through interface and linkage. Energy has been defined as the vital interface of these two basic systems (J. G. Miller, 1965 and 1971; Buckley, 1967 and 1968; Berlo, 1970; Odum, 1971; Sims, 1971; and Sims, Paolucci and Morris, 1972). The ESF is seen as a more complete mapping than Stage I and Stage II's comprehension of the discipline's central focus.

The deductive nature of the study means that the organization of the ESF is still to some degree arbitrary and as a result of inductive refinement the conception can be more accurately and adequately defined.

Summary

Home Economics/Human Ecology has a central focus that is evolving. This study represents one level of the profession's development. The ESF is a logical-deductive elaboration of the Linear and Process Stages. A complementary inductive-empirical comprehension of the central focus of belief is a critical link that

is needed to clarify the ESF image as a scientific tool and facilitate the clarification of the nature of the field.

The ESF is a challenge to the profession as a social system to discuss this growth through a kind of metabolism of the central image. This ongoing process has the possibility of being defined by the ESF because the concepts are explicit and can be discussed and refined as a result. Implied abductive conceptualizations have hindered the continued development of the scholarly base of Home Economics/Human Ecology as well as impeded the profession's consensus and commitment to a central focus (Quilling, 1970).

Home economics has certain features which are unique among the applied human sciences, and which make it particularly suitable for carrying out a much needed role in our communities to reach the goal of improving the quality of the person/family environment system. First, it is unique in that its unit of study and focus is the primary family group . . . on the totality of family relationships. Second, home economics is presently re-emphasizing the need to deal with the environmental context of the family, rather than treating it as a self-contained unit Third, home economics . . . is (freed) from a treatment orientation, which allows concentration of the energies of the profession on promotion of family well-being and prevention of family dysfunction. Finally, since home economics is an applied science, its practitioners should be thoroughly familiar with research that has been done in the family field, as well as in related areas of study, and be able to utilize such knowledge to design and implement meaningful programs of intervention (Mannino, 1971, pp. 3-4).

The clarification of the ESF seeks to focus the attention of the profession on the basic concepts and their interrelationships in order to clarify the unique concerns of Home Economics/Human

Ecology. It is represented as a framework that uses GST and the ESA to reflect a whole system that has the characteristics of the three primary aspects of systems: structure, process and history (J. G. Miller, 1971, p. 284). As a dynamic multidimensional framework the ESF portrays the complex interaction between the Organism (any systems level), the Organism as Family, the near and distal environment and energy. The ESF is designed to, therefore, represent level I of the intellectual hierarchy and an overarching master plan of level II of the intellectual hierarchy defined as the field's philosophy, research, theory, practice and curriculum.

Propositions: Statements for Consideration

The purpose of this series of propositions is to establish some problems to be solved and affirmative statements that can be then characterized as true or false. The deductive nature of this study implies that the reasoning is a logical process in which some conclusions are drawn from a set of premises and contain no more information than the premises taken collectively. The "truth" of the synthesized ESF and, therefore, the generalizations are supposed to be logically true (Koestler, 1967, pp. 341-348; J. G. Miller, 1965 and 1971).

The next step towards clarifying and upholding the deductive generalizations is to employ the inductive method. This is a process in which a conclusion or hypothesis is proposed that contains

more information than the observations or experience on which it is based. Said another way: it is a logical process in which generalizations are inferred from specific facts. The "truth" of the conclusions is verifiable only in terms of future experience and is attainable only if all possible instances have been examined.

The propositions that are proposed are deductive generalizations about the ESF that can be inductively explored. It means that a complementary body of information can facilitate the development of an inductive framework. Then and only then can the ESF be considered an altogether useful basic scientific tool for the profession and the explication can be reasonably characterized as representing the central focus of Home Economics/Human Ecology. The challenge of gaining consensus within the profession on this basic focus should be considered a separate but important related issue.

Because the entire biosphere is a grossly complex and an inconveniently large system to discuss, it is customary to conceptually isolate parts of it into ecosystems or sub-wholes (systems). Home Economics/Human Ecology is concerned with the ecosystem of the individual organism and organism as family. This is defined as a group of human organisms that are related to each other by their common access to some particular, well clarified energy flow which is their participation in a web of matter-energy and informational flows. Like those of any thermodynamic system, the boundaries of an ecosystem may be chosen arbitrarily and for most ecosystems the boundaries are open to some degree of material flow. Any ordered structure may be recognized as an open system by its disintegration when

the supportive energy flow is cut off. As in ecological communities, behavioral mechanisms may mediate the energy flows.

The ESF conceptualizes the organism as family in an eco-system and the concern with man-environment interrelationship as the image, map or framework of the field's central focus. It can facilitate an explicit means for clearly stating the boundaries and clarifying the basic dimensions of the profession: philosophy, research, theory, curriculum and practice. This can, in turn, represent a general search for organization and patterns of relationships among certain phenomena.

Proposition 1.00: The Whole ESF as a System

- 1.00 The ESF is a whole abstracted system that represents a Stage in the evolution of the map of the central focus of Home Economics/Human Ecology.
- 1.1 The ESF is a holistic framework of the complex, multi-dimensional and dynamic basic concepts of the field's philosophy, research, theory, curriculum and practice.
- 1.2 The ESF is an open system that is typified by the following three primary attributes of a living system:
 - 1.21 Structure-elaboration (Buckley, 1967, p. 5).
 - 1.22 Process (J. G. Miller, 1965, p. 338; Bertalanffy, 1968, pp. 39-40).
 - 1.23 History (J. G. Miller, 1971, p. 284).
- 1.3 The structure of the ESF has the following attributes:
 - 1.31 Systems, subsystems, and suprasystems.
 - 1.32 An ecosystem boundary.
 - 1.33 Near-environment in relationship to the distal environment.
 - 1.34 Level of analysis.
 - 1.35 Emergents or synergy.

- 1.4 The process of the ESF has the following attributes:
 - 1.41 A living system.
 - 1.42 An open system.
 - 1.43 Metabolism that maintains the ESF system through:
 - 1.43.1 Metabolism of matter-energy.
 - 1.43.2 Metabolism of information.
 - 1.43.3 Metabolism of both.
 - 1.44 Morphogenesis and morphostasis.
 - 1.45 Function or the purposes and/or consequences of the system's processes (Berlo, 1970, pp. 8-9). Function has the following attributes:
 - 1.45.1 Production.
 - 1.45.2 Maintenance.
 - 1.45.3 Innovation.
- 1.5 The history of the ESF is an accumulation in the system of the effects of past events (J. G. Miller, 1971, p. 284).
 - 1.51 A living system carries its history with it in the form of altered structure and consequently altered process (function).
 - 1.52 The history of the ESF is a circular relation among the three primary aspects of systems: Structure elaboration, process and history.
 - 1.53 When the change is irreversible a historical process has occurred giving rise to a new structure.
- 1.6 The whole ESF system is an abstract comprehension and implies other abstracts, concepts and concrete phenomenon.
- 1.7 The whole ESF is a system that represents the overarching comprehension or master plan of Home Economics/Human Ecology. Its power lies in the organization of the central focus of Home Economics/Human Ecology.
- 1.8 The ESF is a holistic comprehension that can be used to define the qualitative and quantitative aspects of the central concepts to which the profession attends.
- 1.9 The ESF is a descriptive scientific tool and a means of comprehending the central focus of Home Economics/Human Ecology in more explicit ways.
- 1.10 The ESF is connected through the interface of energy and the linkage of two related systems to form a greater system and

connotes a regularized pattern between systems, subsystems and suprasystems.

- 1.10.1 The transaction of the interface of energy is called metabolism.
- 1.10.2 The transactions and exchange between the linkages connotes a regularized pattern of interaction between the systems, subsystems and suprasystems.
- 1.10.3 The ESF feedback system is reciprocal in nature and is referred to as morphogenesis and morphostasis.
- 1.11 The family as an ecosystem in the near environment is one of the systems represented in the ESF as a central focus of Home Economics/Human Ecology.
- 1.12 The organism (any systems level) in relation to each other and their interaction is an ecosystem.
- 1.13 The basic concepts of the ESF represented as a whole system are always in relation to other systems, subsystems and suprasystems.
- 1.14 The ESF system has a disciplinary context and should be used in that context.
- 1.15 In order to comprehend the use of the ESF fully, suprasystems and subsystems can be superimposed to facilitate a view of the ESF as always in relation to other open systems.
- 1.16 The focus of the ESF on explicit concepts and their interrelationship represents the logical-deductive development of the field's central theme.
- 1.17 The ESF is a holistic map of the component parts of Home Economics/Human Ecology's focus and the interrelationship of these parts to each other, as well as an overall pattern of interaction between the parts.
- 1.18 The ESF is a system with a goal: to study the relationship of the organism as family in an ecosystem towards improving the quality of life of the system through rational means. Because the ESF is a whole system with a goal, it:
 - 1.18.1 has a boundary,
 - 1.18.2 is an open system,
 - 1.18.3 has rules and a history,
 - 1.18.4 has an interdependence within the system and with other systems,
 - 1.18.5 has energy exchange flows within and with other systems,

- 1.18.6 measures the effectiveness of the ESF by the achievement towards the stated goal, and
- 1.18.7 measures the efficiency of the ESF by the ratio between effectiveness and cost.
- 1.19 The ESF is a system that is a structurally and dynamically unique comprehension and not fundamentally comparable to other types of systems although there are some points of similarity.
- 1.20 The use of the ESF as a whole system: The point at which the system is entered by an investigator is arbitrary and is dictated by the goal(s) that have been defined by the investigator.

Proposition 2.00: The Structure of the ESF

- 2.00 The structure of the ESF is the arrangement of its subsystems and the concepts in multi-dimensional space at a given moment in time and over time.
- 2.1 The structure of the ESF connotes an orientation that is a reaction against viewing man in a fractional or simple additive way and is an orientation that is concerned with the aggregate or the whole and the organized backdrop in which events occur.
- 2.2 Every part of the structure of the ESF is so related to every other part that any change in one aspect results in the dynamic change in all other parts of the total system.
- 2.3 The ESF structure is an open system and, therefore, there is exchange of matter-energy and/or information between and among the organisms and the environment.
- 2.4 Such exchanges, transactions or trade-offs in the ESF are not necessarily disruptive. The behavior of the structure of the system to any kind of change may be purposeful problem-solving.
- 2.5 The concept of the ESF as an open system is a matter of relativity or degree.
- 2.6 The component parts of the ESF structure are organized to picture or illustrate the pattern of the relationships of the concepts.
- 2.7 The structure of the concepts of the ESF are related to other structures identified as systems, subsystems and suprasystems.

- 2.8 The ESF, subsystems and suprasystems are embedded within the physical, spatial, temporal and sometimes symbolic sets of conditions called environments.
- 2.9 The boundary of the ESF defines the focus of the region separating this system from other systems.
 - 2.9.1 The boundary serves to define and filter the inputs and outputs of the ESF.
 - 2.9.2 The boundary can be linked with other boundaries to form greater systems.
 - 2.9.3 The boundary of the ESF is referred to as the eco-system boundary.
- 2.10 When using the ESF, the level of analysis of the structure must be defined as a constant for each component throughout the discourse unless otherwise specifically stated.
- 2.11 The synergy of the ESF is related to the structure of this complex system and means that the ESF manifests qualities that are greater than the sum of the individual concepts included in the ESF.

Proposition 3.00: The Process of the ESF

- 3.00 The process of the ESF is the dynamic, ongoing, everchanging events and relationships that have neither a beginning nor an end.
- 3.1 There is no one-to-one relationship between process and structure (J. G. Miller, 1971, pp. 288-289).
- 3.2 Living systems organize themselves only in and through process: 1) the metabolism of matter-energy, 2) the metabolism of information, and 3) the metabolism where both are involved.
- 3.3 The process idea of the ESF, therefore, includes the dynamic process underlying the existence, growth, change, and the behavior of all living systems--individual and multi-person.
- 3.4 The process of metabolism of matter-energy and the metabolism of information are the indispensable function of individual organisms and organization through which the organism or organization relates itself to the environment and its parts and its processes one to the other.

- 3.4.1 J. G. Miller (1971, pp. 307-308) has identified information and matter-energy processing subsystems in the organism as family (group) as follows:
- 3.4.2 Matter-energy processing subsystems (J. G. Miller, 1971, pp. 307-308 and 313-321):
- i) Ingestor,
 - ii) Distributor,
 - iii) Converter,
 - iv) Producer,
 - v) Matter-energy storage,
 - vi) Extruder,
 - vii) Motor,
 - viii) Supporter
- 3.4.3 Information processing subsystems (Miller, 1971, pp. 307-308 and 321-351): "From the information processing viewpoint, the essence of the organism's interaction with the world is the identification and acquisition of potentially useful stimuli, the translation and transformation of the information received into meaningful patterns, and the use of these patterns in choosing an optimal response" (Suedfeld, in Schroder and Suedfeld, 1971, p. 3).
- i) Input transducer
 - ii) Internal transducer,
 - iii) Channel and net,
 - iv) Decoder,
 - v) Associator,
 - vi) Memory,
 - vii) Decider,
 - viii) Encoder,
 - ix) Output transducer
- 3.4.4 Subsystems which process both matter-energy and information are (J. G. Miller, 1971, p. 307):
- i) Reproducer,
 - ii) Boundary

3.5

In living systems there are two feedback processes that are basic to the metabolism of information and the metabolism of matter-energy; morphostasis or deviation-counteracting (Negative) feedback and morphogenesis or deviation-amplifying (positive) feedback processes.

- 3.5.1 These concepts of feedback processes describe relationships which are mutually causal (rather than one-way) (Maruyama, 1960 and 1963).

3.5.2 Therefore, a key concept to understanding the ESF is interaction as a mutually causal notion and interaction as reciprocity with short-term and long-term consequences.

3.6 The function of the ESF is the process of dealing with the purposes or consequences of a whole system and why it exists (Miller, 1965, p. 337). Said another way: "Process includes the ongoing function of a system. . . ." (J. G. Miller, 1971, p. 284).

Three major dimensions of function are identified as (Berlo, 1970, pp. 9-10):

3.6.1 Production--how the tasks of the system are carried out.

3.6.2 Innovation--the degree to which the environment is changing and the desire for the organization to operate efficiently. The two components of innovation are: a) eliciting of new ideas and b) the implementation of new ideas.

3.6.3 Maintenance--there are three aspects of the maintenance function:

- a) Maintenance of the self-concept,
- b) maintenance of interpersonal relationships,
- c) maintenance of production and innovation functions within the system.

3.7 The potential combination of dynamic processes represented in the ESF are endless, although it is recognized that certain things may precede others.

3.8 The ESF represents the processes of a holistic arrangement of abstracts and is a guide or map with which other abstracts, concepts, and concrete processes can be explored.

Proposition 4.00: The History of the ESF
(J. G. Miller, 1971, p. 284)

4.00 The history of the ESF involves the accumulation in the system of residues or effects of past events (structural changes, memories and learned habits, for example).

4.1 The ESF carries its history with it in the form of altered structure and consequently of altered process which includes function.

- 4.2 There is a circular relation among the three primary aspects of the system: Structure changes momentarily with processing (functioning), but when such change is so great that it is essentially irreversible, an historical process has occurred, giving rise to a new structure or the elaboration of the structure.
- 4.3 Therefore, the history of the ESF involves the concepts of space and time.
- 4.3.1 "This presentation of a general theory of living systems will employ two sorts of spaces in which they may exist, physical or geographical space and conceptual or abstracted space" (J. G. Miller, 1971, p. 278).
- "Each (of these types of spaces) has characteristics and constraints of its own" (J. G. Miller, 1971, p. 279).
- 4.3.2 "Time is the particular instant at which a structure exists or a process occurs, or the measured or measurable period over which a structure endures or a process continues A concrete system (of time) can move in any direction on the spatial dimensions, but only forward--never backward--on the temporal dimension" (J. G. Miller, 1971, p. 279).

Proposition 5.00: The Component Concepts of the
Abstracted System Referred to as the
Ecological Systems Framework

5.00 The component concepts of the ESF are as follows:

	<u>Concept</u>	<u>Code</u>
5.0.1	Organism	(O)
5.0.2	Organism as Family	(O-F)
5.0.3	Energy	(E)
5.0.4	Energy as matter-energy	(E-me)
5.0.5	Energy as information	(E-i)
5.0.6	Energy as communication	(E-c)
5.0.7	Environment	(En)
5.0.8	Environment (Distal)	(En-d)
5.0.9	Environment (Near)	(En-n)

5.0.10	Complex Feedback Systems	
	Morphogenesis	(Mg)
	Morphostasis	(Ms)
5.0.11	Interface	(I)
5.0.12	Linkage	(L)

5.1 An abstract system: Units are relationships abstracted or selected and the relationship may be empirical or logical concepts.

5.1.1 Concepts are used to build an abstracted system.

5.1.2 The ESF is a logical abstracted system that is deductively synthesized.

5.2 A concept is a big idea that represents a generalized notion of a class of objects and it is an abstraction of a mental image.

5.3 The concept of an organism (O) is a complex of cells represented in the ESF as the living system of the human organism. It has diverse organs and parts that function together as a whole to maintain life and its activities.

5.4 The organism as family (O-F) is any systems level of individual human organisms who represent an identifiable unit of interacting organisms with some common goals, commitment over time and the sharing of resources and living space.

5.4.1 It is a system of individual human organisms in an ecosystem and that ecosystem mediates between the organism as family and the larger society.

5.4.2 The organism as family is greater than the sum of the individual organisms (J. G. Miller, 1971, pp. 302-398).

5.4.3 Such an organization is an ordering of structure, process and history.

5.4.4 The organism as family has the following attributes:

- i) An open system in constant interaction with the near and distal environment.
- ii) It is a system with multiple purposes or functions that involve multiple interactions between the Organism as Family and the environment.
- iii) Consists of many subsystems (groups and roles) which are in dynamic interaction with one another.
- iv) Changes in one subsystem affect the behaviors in other subsystems.
- v) Exists in a dynamic environment with changing demands and constraints.

- vi) The multiple links between the ecosystem boundary of the Organism as Family and its distal environment makes it difficult to clearly specify other boundaries in precise ways.
- vii) The stable processes of input (import), conversion and output (export) may ultimately best describe an organization rather than size, shape, function or structure.

5.5 Energy (E) is pictured as the life-giving interface and linkage throughout the ESF.

5.5.1 The concept of energy can be defined in two broad categories: Matter-energy (E-me) and information (E-i).

5.5.2 A subset of information is communication (E-c).

5.5.3 Communication is a complex phenomenon defined through the following sequence:

- i) Matter-energy: The relativistic concept that all forms of matter and energy are really the same phenomenon with the apparent differences attributable to the nature of the sense organs of the perceiver, rather than to the nature of the energy form.
- ii) Information (technical sense): The patterned structure of matter-energy.
- iii) Communication: Information (pattern) for which the receiver and the sender share a common experience with respect to the information.
- iv) Information (Communication sense): Patterned matter-energy for which there is a common referent experience, and an agreement that the information regularly denotes the same referent object or experience, with the additional provision that there is a corresponding reduction of uncertainty about the state of the perceiver's world.

5.6 Environment (En): Systems, subsystems and suprasystems are embedded within physical, spatial, temporal and sometimes symbolic sets of conditions called environments. The characteristics of the environments affect the system which interacts with them and are affected by them. Living systems adapt to their environment and in return mold it. This reciprocal relationship over time means that each in some sense becomes the mirror of the other. The earth is a total system of interacting parts and the broad concept of the environment is included in that image.

- 5.6.1 The near environment (En-n) is all those conditions that are closest to the organism(s) and therefore affect and are affected by in more direct ways: All that surrounds a designated ecosystem.
- 5.6.2 The distal environment (En-d) is linked to the near environment and in an abstract sense forms concentric circles around it. These may be suprasystems, supra-suprasystems or subsystems, subsubsystems that support the defined near environment. The concept of distal environment includes three interacting environmental systems:
 - i) biophysical--physiological and metabolic: The organic life cycle.
 - ii) the psychosocial--interpersonal relationships expressed by individual and collective patterns of behavior, and
 - iii) technological--materials, tools and techniques.
- 5.7 Complex Feedback Systems: Morphogenesis (Mg) and Morphostasis (Ms):
 - 5.7.1 Morphogenesis (Mg) is the deviation-amplifying (positive) feedback process.
 - 5.7.2 Morphostasis (Ms) is the deviation-counteracting (negative) feedback processes (Maruyama, 1960 and 1963).
 - 5.7.3 This feedback system represents a mutually causal relationship or reciprocity rather than a one-way action-reaction or cause-effect view.
- 5.8 Interface (I) is the relationship between two or more living systems that is an abstracted space relationship greater than linkage. Interface is essential to the vitality of the two interacting open systems.
- 5.9 Linkage (L) is a concept of the relationship between two systems that are connected to form a greater system. It suggests a regularized pattern of interaction between the two systems which in a sense forms a bond between them.
- 5.10 The component concepts of the ESF form a holistic open system that is a map or picture of the central focus of Home Economics/Human Ecology.
- 5.11 The ESF is a whole system organized into two basic systems that are linked:
 - 5.11.1 The Organism as Family in an ecosystem (multi-person) and

- 5.11.2 The Organism (any systems level) in relation to each other and their interaction in an ecosystem.
- 5.12 The abstract arrangement of the ESF is derived from a synthesis of:
 - 5.12.1 The historical foundations of the field over time (Chapter II and III).
 - 5.12.2 General Systems Theory applied to the Ecological Systems Approach (J. G. Miller, 1965 and 1971; Buckley, 1967 and 1968; Auerswald, 1968).
 - 5.12.3 The study of the family in a conceptual framework (Christensen, 1964; Nye and Bernardo, 1966 and 1973; Hill and Hansen, 1968; Broderick, 1971).
 - 5.12.4 Contemporary views of the profession of Home Economics/Human Ecology (Brown, 1967 and 1970; Hook and Paolucci, 1970; Quilling, 1970).
- 5.13 The ESF is a deductive representation and, therefore, an arrangement of the central component concepts of Home Economics/ Human Ecology that need to be inductively quantified and refined as part of a continuing process of development.

Proposition 6.00: The Qualitative Aspects of the ESF

- 6.00 The ESF is essentially value-free. The qualitative or values enter in when:
 - . . . 1) upholding some basic end goal or goals to be accomplished by home economists as home economist; 2) choosing the methods of inquiry to be used as means enabling home economists to reach their end goal(s), and 3) choosing the standards or modes of agreeing upon what is acceptable knowledge in home economics They (values) enter theory not as statements or postulates but rather through determining the focus and the nature of theoretical knowledge for home economics (Brown, 1967, p. 773).
- 6.1 The ESF is a means to facilitate the development of explicit qualitative statements about the commitment of the field with regard to its (1) basic end goal; (2) methods of inquiry to reach that end goal and (3) the means for reaching a

consensus on what is acceptable knowledge in Home Economics/ Human Ecology.

- 6.2 The man-learned and man-built conceptualization of his relationship to the environment is intricately enmeshed in qualitative concepts of selectivity.

Even with a high degree of redundancy in communication, it is often ineffective. One reason is the selectivity processes, the tendency to seek familiarity and reinforcement for our existing attitudes, and to avoid situations in which we will not receive such reinforcement . . . (there are) three selectivity processes:

Selective exposure is the tendency to attend to . . . messages that are consistent with one's existing attitudes and beliefs

Selective perception is the tendency to interpret . . . messages in terms of one's existing attitudes and beliefs

Selective recall is the tendency to remember . . . messages as consistent with one's existing attitudes and beliefs (Rogers, 1971, pp. 8-9).

- 6.3 Selectivity is one of the qualitative aspects of the comprehension of the ESF as representing the central focus of the Home Economics/Human Ecology.

- 6.4 Culture is one of man's qualitative selective mechanisms.

6.4.1 Culture is an abstraction that is known and understood through its manifestations.

6.4.2 Culture is man's most important instrument of adaptation and is made up of the energy systems, the objective and specific artifacts, the organization of social relations, the modes of thought, ideologies, and the total range of customary behavior that is transmitted from one generation to another by a social group and enables it to maintain life in a particular habitat.

6.4.3 The ESF is an attempt to view the organism as family in relation to the near environment in an international-global context and, therefore, involves the qualitative cultural definitions of the focus of Home Economics/Human Ecology's concerns.

- 6.5 In a broad sense, all cultures embody a system that can be referred to as organism as family.

- 6.5.1 The qualitative focus of the ESF seeks to view the family as organism from a broad cross-cultural base.
- 6.5.2 One qualitative implication is that all organism as family are worthy of the profession's philosophical, theoretical, research, curricular and action-practice concerns.
- 6.6 The use of GST terminology in the ESF is an attempt to stress the qualitative development of the focus of the field through the use of language.
 - 6.6.1 GST language tends to be more value-free and connotes a concern for the organism and the organism as family as an ecosystem regardless of origin, socio-economic status, environmental constraints and so forth.
 - 6.6.2 The qualitative concerns of the ESF language assumes that language is behavior and behavior is language (Terwilliger, 1968).
- 6.7 The qualitative concerns of the ESF connote a pervasive commitment to the idea that the quantitative-survival level of existence should not be the goal of the profession. The goal of the profession is to help families achieve a quality life in a quality environment.
 - 6.7.1 Because "well-being" and "quality of life" have not been quantitatively defined, the qualitative goals of the profession are at present open to many interpretations (Andrews, 1973; Melville, 1973; Walker, 1973).
- 6.8 The qualitative and quantitative aspects of the ESF, therefore, need to be complementary developments.
 - 6.8.1 The qualitative concerns and focus of the profession should be made explicit in quantitative terms to facilitate the realization of the ESF comprehension of the field's focus (Walker, 1973; Gauger, 1973).
- 6.9 The decision-making process as it relates to the use of the ESF involves qualitative assumptions. [One example, is the economic concept of growth. Is growth "good?" Or should it be defined as controlled growth for the good of all? And what are the implications of changing such an assumption on the organism as family?]
- 6.10 Qualitative assumptions of the ESF should be explicitly defined as well as quantified to facilitate the end goals of Home Economics/Human Ecology.

- 6.11 The qualitative aspects of the ESF are related to questions of value (clarification and moral reasoning), resources, goals, the costs in relation to human and material resources and long-term and short-term consequences of all these dimensions.
- 6.12 How the qualitative aspects of the ESF are defined will affect the qualitative output of the profession's philosophy, theory, research, curriculum and actions.
- 6.13 Through rational scientific means the field does have control of its destiny and its qualitative aspects.
 - 6.13.1 The ESF is one kind of tool to facilitate the explication of the qualitative controls and concerns to which the profession attends.
 - 6.13.2 If the profession does not explicate the qualitative commitments to which it attends, it has lost control over the development of the dimensions of the profession: philosophy, theory, research, curriculum and actions.
- 6.14 One qualitative issue of the profession is to define the meaning of moral complex man as opposed to material man as these relate to the development of dimensions of the profession (Kohlberg, 1969).
 - 6.14.1 Qualitative issues have to do with human costs in human suffering and dignity.
 - 6.14.2 Qualitative issues have to do with the distribution of resources on a global scale.
- 6.15 Qualitative aspects involve both short-range and long-term moral consequences and the prediction of both are part of the decision-making process of the profession.
- 6.16 The ESF is a means of facilitating the development of scientifically rational explicit qualitative concerns of Home Economics/Human Ecology.

Proposition 7.00: The Quantitative Aspects of the ESF

- 7.00 The ESF is a means whereby the quantitative aspects of the profession can be defined in explicit ways.
- 7.1 The ESF has the potential to be inductively developed and, therefore, the concepts of the ESF can be quantified.

- 7.2 Through systems dynamics, quantification of abstract concepts can demonstrate how the abstract concepts of the ESF behaves in complex interrelated ways (Forrester, 1971).
- 7.3 Quantification of the ESF assumes that there are orderly processes at work in the creation of human judgment and intuition that can lead to rational decisions if all the complex and highly interrelated systems are accounted for.
- 7.4 Quantification is a more exact approach to defining the profession's goal of helping all families realize a quality life.
- 7.5 Defining quality of life in quantitative terms is a feasible and rational approach to the decision-making process in a complex system such as Home Economics/Human Ecology (Andrews, 1973; Melville, 1973).
- 7.6 Quantification of the concepts of the profession can facilitate the prediction of consequences, both short-term and long-term, and eventually lead to a better understanding of the organism as family in an ecosystem (Forrester, 1971).
- 7.7 The quantification of the quality of life will involve defining, on a global scale, some of the standards concerning the basic rights of the human organism with regard to such finite resources as energy (matter-energy and information), clean air, water, space, privacy and so forth.
 - 7.7.1 The quantification of man's basic rights and responsibilities involves the qualitative aspects of moral man.
- 7.8 Quantification of the field's central concepts will facilitate the quantification of the impact of the profession and, in turn, facilitate the development and refinement of the profession.
- 7.9 The mental model or the human mind is not adapted to interpreting the quantitative aspects of how social systems behave because they are multi-loop nonlinear feedback systems. The strengths of machines and the strengths of the human mind, therefore, should be combined to quantify the social dynamics with which the profession is concerned (Forrester, 1971).
- 7.10 Simulations of the multi-loop complex systems with which Home Economics/Human Ecology are concerned can be developed and tested in a laboratory setting through the quantification of the concepts of the ESF (Forrester, 1971; Koenig, et al., 1971).

- 7.11 The quantification of the social systems that the profession is concerned with can lead to decision-making that views both the short-term and long-term consequences of this process.

Proposition 8.00: The Interaction of the Quantitative
and Qualitative as Implied in the ESF

- 8.00 Combining the quantitative and qualitative aspects of the ESF will facilitate a more holistic approach for the profession of Home Economics/Human Ecology.
- 8.1 "In the hierarchy of systems, there is usually a conflict between the goals of a subsystem and the welfare of the broader system" in both qualitative and quantitative terms (Forrester, 1971, p. 68).
- 8.2 Therefore, unless a holistic approach is taken such as that implied by the ESF, traditional goals may succeed with the result of deepening personal and group distress (Forrester, 1971).
- 8.3 Multi-loop feedback systems such as the ESF implies, can, if not qualitatively and quantitatively defined, mislead the profession into defining goals through intuition that may bring results that are different from that actually possessed by the multi-loop system's dynamic behavior interacting with other systems.
- 8.4 Concern with the explication of the quantitative and qualitative aspects of the discipline's central focus represented by the ESF may lead to an emphasis that is not at present anticipated in relation to Home Economics/Human Ecology's philosophy, research, theory, curriculum and action.
- 8.5 The most crucial reason for explicating the quantitative and qualitative aspects of the ESF is the need for the profession to determine the dynamic consequences when the concepts within the model interact with one another.
- 8.6 Qualitative language that is quantified in explicit ways lead the profession to use precise language and symbols that have shared meanings within the profession and with other professions.

- 8.7 The ESF is a map of Home Economics/Human Ecology's logical structure, process and history and can facilitate the qualitative and quantitative development of its central focus.

CHAPTER V
THE REACTION OF A SELECT POPULATION TO THE
ECOLOGICAL SYSTEMS FRAMEWORK

The purpose of this chapter is to present the data which were gathered to identify the reactions to the proposed Ecological Systems Framework by the population of administrators of units of higher education of Home Economics/Human Ecology in the United States. This phase was conducted from September 1973 to December 1973. For details of the documents, see Appendix B.

The Ecological Systems Framework Opinionnaire
Packet: The Method

This phase of the empirical procedure was a survey of reactions to the ESF by a select population of administrators of units identified as Home Economics/Human Ecology. A thirteen page Ecological Systems Framework Opinionnaire Packet, which was developed from a synthesis of related materials, was reviewed. The response facilitated the refinement of the proposed ESF (See Chapters II, III and IV and Appendix B). A three page opinionnaire was included in the Packet to which the respondent was to react.

The specific objectives of the survey were as follows:

1. To assess the reactions of a select population to the ESF, using the Ecological Systems Framework Opinionnaire Packet.
2. To determine the reactions of the population to the ESF as a means of defining the central focus of the discipline and as a potential tool.
3. To establish whether there are regional differences to the responses to the statements on the opinionnaire.

The population receiving the opinionnaire consisted of all administrators of Home Economics/Human Ecology units of higher education compiled from the combined lists of the National Council of Administrators of Home Economics¹ and the U.S. Department of Health, Education and Welfare.² (See Appendix B for a complete list.)

This particular group was polled because it was presumed that they represented: 1) the leaders in the profession, 2) well-informed professionals, 3) involved with the scholarly bases of the profession,

¹The complete Membership of the National Council of Administrators of Home Economics for 1972 as of February 16, 1972 and includes honorary members.

²The list of the U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Adult, Vocational, and Technical Education; Division of Vocational and Technical Education, Washington, D.C. Heads of Home Economics Departments in Institutions approved by State Boards for Vocational Education for the training of Vocational Teachers of Home Economics (Revised Summer 1972).

4) involved with organizational changes, and 5) professionals who are up-to-date.

The Opinionnaire Packets were forwarded by Third Class mail on September 20th, 1973 with a request that they be completed by October 1st. A cover letter, the Packet and a self-addressed stamped envelope were included in the mail out. It was not anticipated that the delivery would take longer than a week. However, many packets arrived after the first reminder post card was forwarded on October 4th. Over half of the population did not return the materials. Others returned them unanswered. Some of the reasons cited by the latter group were the pressures of their positions and insufficient time to meet the proposed due dates. On October 26th a second reminder post card was forwarded to the persons who had not responded. The last useable return was received December 28th.

Table 2.--Opinionnaire Distributed and Returned

	Number	Percentage
ESF Opinionnaire Packets forwarded	292	100 %
Op i nionnaires Returned	153	52.40
Completed	128	43.84
Uncompleted	25	8.56
Pac kets Not Returned	139	47.60

Of the 25 Opinionnaires returned 80% uncompleted, 21 gave a reason. These can be grouped together and have been summarized in Table 3.

Table 3.--Reasons for Not Completing the Opinionnaire

Reasons Given	Number
1) The administrator contacted was no longer an administrator (sabbatic leave, transfer, death, retirement).	10
2) The deadline suggested could not be met.	7
3) The administrative unit no longer exists.	3
4) The materials were too abstract.	1

Analysis of the Data

The data obtained from the Ecological Systems Framework Opinionnaire were analyzed using the Multivariate Contingency Tabulation (MVTAB) at the University of British Columbia in Vancouver. The MVTAB is a program designed to be used for questionnaire analysis in the social sciences. Considering one question or variable at a time, it counts the number of subjects who gave each response to the question and calculates the percentage of people who gave each response to the question. The output includes univariate frequency

tables and univariate total percentage tables. It also considers two questions at a time (bivariate cases) and produces bivariate frequency tables and bivariate total percentage tables. The MVTAB analysis for this opinionnaire was concerned with the analysis of the responses using the data of the total population.

The contents of the Packet are contained in Appendix B. The three page Opinionnaire appears on the following pages. It includes a page of items concerned with demographic information and a two page opinionnaire which requests that the respondent rate the degree of agreement or disagreement to sixteen statements about the ESF as presented in the Packet. The analysis includes the data for the total population to avoid distortion.

The Findings

What are the Overall Ratings Given the Sixteen Statements on the Opinionnaire?

To determine the answers to the first question using the total population, bivariate analysis was used to determine what were the overall ratings given for each of the sixteen statements on the Questionnaire? The purpose was to assess, using the ESF Opinionnaire whether administrators think that: 1) the ESF reflects the central focus of Home Economics/Human Ecology and 2) if the ESF can be used in practice. Tables 4 and 5 summarize the findings of this analysis.

ECOLOGICAL SYSTEMS FRAMEWORK QUESTIONNAIRE

The Ecological Systems Framework Questionnaire is a structured means of determining the extent to which the idea presented in the Packet is, in your opinion, a framework that would be a useful tool for Home Economics/Human Ecology.

PLEASE RESPOND TO ALL OF THE APPROPRIATE ANSWERS THAT BEST DESCRIBE
YOUR SITUATION

1. I have been an active professional home economist for approximately:
 - ☐ A. 1-5 years
 - ☐ B. 5-10 years
 - ☐ C. 10-20 years
 - ☐ D. 20-30 years
 - ☐ E. Other (please indicate)
 2. I have been an administrator for approximately:
 - ☐ A. 1-5 years
 - ☐ B. 5-10 years
 - ☐ C. 10-20 years
 - ☐ D. 20-30 years
 - ☐ E. Other (please indicate)
 3. The highest degree earned (Please indicate): _____
 4. The major subject matter areas that I concentrate my academic work in are as follows (Please indicate): _____
 5. The total undergraduate majors enrolled in the College, School, or Department in which I am an administrator is approximately:
 - ☐ A. Under 250
 - ☐ B. Under 500
 - ☐ C. Under 900
 - ☐ D. Under 1200
 - ☐ E. Other (please indicate)
 6. The total graduate majors enrolled in the College, School, or Department in which I am an administrator is approximately:
 - ☐ A. Under 25
 - ☐ B. Under 50
 - ☐ C. Under 100
 - ☐ D. Under 150
 - ☐ E. Other (please indicate)
 7. The institution of higher education in which I am an administrator is considered to be:
 - ☐ A. A Land-Grant College
 - ☐ B. A State University
 - ☐ C. A Private Institution
 - ☐ D. Other (please indicate)
 8. The administrative unit for which I am responsible employs the following number of full time faculty (indicate the number please) _____
-

9. The present title of the administrative unit for which I am responsible is: _____
10. The present title was made official (please indicate date) _____
11. If there has been no title change, have there been any plans for the change of title? Yes: _____ No: _____ (Briefly describe) _____
12. The present administrative unit for which I am responsible has reorganized the administrative structure: Yes: _____ No: _____. If so, briefly describe on reverse.
13. The present administrative unit for which I am responsible has undergone curriculum reorganization: Yes: _____ No: _____. If so, briefly describe on reverse.

ECOLOGICAL SYSTEMS FRAMEWORK: QUESTIONNAIRE

Please check the one response that best describes your opinion of the **statements** below. Space is provided for you to include comments or suggestions.

		Strongly Agree	Agree	Strongly Disagree	Disagree	Uncertain
STATEMENT		5	4	3	2	1
1.	The Family is the central focus of Home Economics/Human Ecology. Comment _____					
2.	The central focus of Home Economics/ Human Ecology is the Organism as Family in the context of the Near Environment. Comment _____					
3.	The professionals within the field have perceived the Linear Framework as a first stage in the evolution of the profession's framework. Comment _____					
4.	The Process Framework represents progress in comprehending the central focus of the profession. Comment _____					

	Strongly Agree	Agree	Strongly Disagree	Disagree	Uncertain
STATEMENT	5	4	3	2	1
5. Energy is a crucial missing interface in the Linear and Process Frameworks. Comment _____					
6. The Ecological Systems Framework is a means of helping the profession to more consciously state and use the basic concepts of Home Economics/Human Ecology. Comment _____					
7. The Ecological Systems Framework is a tool to develop and refine the profession's philosophy, theory, research, curriculum, and action strategies. Comment _____					
8. The Ecological Systems Framework is a system through which the Organism as family can be perceived in relation to other systems. Comment _____					
9. The Ecological Systems Framework is different from the Linear and Process Frameworks because it pictures the relationship between the Organism as Family in the Near Environment in a new way. Comment _____					
10. The Ecological Systems Framework is a scientific tool that can aid the profession to view the Organism as Family in a more systematic, accurate and objective manner. Comment _____					
11. The Ecological Systems Framework is one way for the profession to perceive the relationship of Home Economics/Human Ecology to other disciplines. Comment _____					

STATEMENT	Strongly Agree 5	Agree 4	Strongly Disagree 3	Disagree 2	Uncertain 1
12. Defining the Organism as Family in an ecosystem reflects the profession's concern with serving all families. Comment _____					
13. The Ecological Systems Framework is an organization of the concepts that represent the central focus of the profession. Comment _____					
14. The Ecological Systems Framework can be used as a tool to define quantitative aspects of the profession. Comment _____					
15. The Ecological Systems Framework can help the profession define qualitative (moral, ethical, values) priorities. Comment _____					
16. The goal of Home Economics/Human Ecology is to help the Organism as Family realize a quality life, over time. Comment _____					
17. Additional comments:					

PLEASE RETURN COMPLETED QUESTIONNAIRE AND ECOLOGICAL

SYSTEMS PACKET by October 1, 1973

to

Mrs. Eleanore Vaines
School of Home Economics
University of British Columbia
Vancouver 8, B.C., CANADA

Table 4.--Responses to Statements that the ESF Reflects the Central Focus of the Profession

Statement Number	SA A	U	Number		Uncom- pleted	Percentage of Total Population			
			SD D			SA A	U	SD D	Uncom- pleted
1	116	3	9		0	39.7	1.0	3.0	56.3
2	109	8	10		1	37.3	2.7	3.4	56.6
3	77	29	21		1	26.3	9.9	7.1	56.7
4	104	14	2		8	35.6	4.7	.68	59.02
5	76	27	21		4	26.0	9.2	7.1	57.7
6	93	29	4		2	31.8	9.9	1.3	57
9	87	26	9		6	29.8	8.9	3.0	58.3
11	102	15	7		4	34.1	5.1	2.4	58.4
12	107	8	6		7	36.7	2.7	2.0	58.6
13	81	26	12		9	27.7	8.9	4.1	59.3
16	109	10	3		6	37.3	3.4	1.0	58.3

Summary of Population Responses:

Completed Opinonnaires = 128

Uncompleted Opinonnaires = 164

Total population = 292

Key:

SA = Strongly Agree

A = Agree

U = Uncertain

SD = Strongly Disagree

D = Disagree

Table 5.--Responses to Statements that the ESF Can be Used in Practice

Statement Number	SA A	Number			Percentage of Total Population			
		U	SD D	Uncom- pleted	SA A	U	SD D	Uncom- pleted
7	107	17	3	1	36.6	5.8	1.0	56.6
8	111	14	2	1	38.8	4.8	.68	55.7
10	83	32	10	3	28.4	10.9	3.4	57.3
14	67	37	15	9	22.9	12.6	5.1	59.4
15	21.9	13.3	5.8	8	21.9	13.3	5.8	59.0

Summary of Population Responses:

Completed Opinionnaires = 128

Uncompleted Opinionnaires = 164

Total Population = 292
Are There Regional Differences in the Responses
to Objective 1 and 2?

The purpose of this portion of the analysis was to examine **the** responses for regional differences. The regions were identified **as** outlined in Table 6.

The responses to the opinionnaire statements by region are **summarized** in Table 7.

Table 6.--Survey of Regions: The States Included and the Number of Respondents

Region	States Included	Population
Region 1: West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming	50
Region 2: South	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, Texas, Virginia, West Virginia	110
Region 3: Mid-West	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin	81
Region 4: North-	Connecticut, Delaware, Washington, D.C., Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont	51

Table 7.--Opinionnaire Responses by Region

Response	TOTALS	Region 1 West	Region 2 South	Region 3 Mid-West	Region 4 Northeast
I. Returned					
a) completed	128	28	38	43	19
b) uncompleted	25	3	11	8	3
Total Returned	153	31	49	51	22
II. Not Returned	139	19	61	30	29
TOTALS	292	50	110	81	51

Is There a Relationship Between the Ratings Given on
the Opinionnaire and the Geographical
Region of the Respondent?

There are two questions in this part. The first is concerned with those who answered Strongly Agree or Agree to all the statements on the opinionnaire and their geographical location. The second is concerned with those who answered Strongly Disagree or Disagree and their geographical region.

1. Of those who answered Strongly Agree/Agree to all the opinionnaire statements, in what geographical area are they found? Fourteen respondents or 11% of the 292 opinionnaires sent out met the criterion. The following states had one respondent: California, Minnesota, Mississippi, Ohio, Tennessee, Texas, Washington and Wisconsin. Two respondents each came from Indiana, Michigan, and Pennsylvania. These are summarized in Table 8.

Table 8.--Region of Respondents Answering SA/A to All the Statements

Region 1 (West)	Region 2 (South)	Region 3 (Mid-West)	Region 4 (Northeast)
California (1) Washington (1)	Mississippi (1) Tennessee (1) Texas (1)	Indiana (2) Michigan (2) Minnesota (1) Ohio (1) Wisconsin (1)	Pennsylvania (2)
Total 2	3	7	2

There were few who qualified for this category and the relationship between geographical region and an overall positive response to the opinionnaire was not correlated.

2. Of those who answered Strongly Disagree/Disagree to all of the statements on the opinionnaire, in what geographical location are they found?

No respondent met this criterion. The overall picture of responses showed that of the 128 useable opinionnaires, no one generally disagreed with all of the statements.

Are the Responses Influenced by the Respondents?

The descriptive data in this part was concerned with the relationship between the responses given on the opinionnaire as influenced by the demographic information provided by the respondent. In general, there was no significant pattern. Specifically only those bivariate tables showing $+ .05$ or less Probability of Gamma correlation will be discussed. It can be assumed, therefore, that those not discussed showed no significant correlation between the demographic information and the rating given to the statement on the opinionnaire.

1. A positive response to the Statement 6: The Ecological Systems Framework is a means of helping the profession to more consciously state and use the basic concepts of Home

Economics/Human Ecology, was significantly correlated to respondents exhibiting up to twenty years as an active professional. The results are summarized in Table 9.

2. A positive response to Statement 2: The central focus of Home Economics/Human Ecology is the Organism as Family in the context of the Near Environment, was significantly correlated to respondents who hold a Ph.D. or Ed.D. degree. The results are summarized in Table 10.

3. A positive response to Statement 5 and 7 was significantly correlated to respondents major subject matter area.

Statement 5: Energy is a crucial missing interface in the Linear and Process Frameworks.

Statement 7: The Ecological Systems Framework is a tool to develop and refine the profession's philosophy, theory, research, curriculum, and action strategies.

The results are summarized in Tables 11 and 12.

4. A positive response to statement 10: The Ecological Systems Framework is a scientific tool that can aid the profession to view the Organism as Family in a more systematic, accurate and objective manner, was significantly correlated to respondents total undergraduate majors enrolled in the College, School or Department. The results are summarized in Table 13.

Table 9.--Bivariate Frequency Table for Statement 6 Related to Question 1

Responses to Statement 6:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 1:						
I have been an active home economist						
1-5 years	13	14	15	1	1	4
5-10 years	4	24	9			
10-20 years	12	14	3	2		2
20-30 years	3	6	2			1
30-45 years	1	1				
Not a home economist	1					
No Answer						159
Total = 292:	34	59	29	3	1	166

Table 10.--Bivariate Frequency Table for Statement 2 Related to Question 3

Responses to Statement 2:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 3:						
The highest degree earned						
B.S.	1					
M.S.	12	9		2		1
M.S. and added studies			1			
M.A.	3	5		1		
M.A. and added studies	2	1				
M.Ed	4	2				
Ph.D.	21	29	4	4	1	4
Ed.D. or Ed.S.	4	10	3		1	1
Other	2	3			1	
No answer	1					159
Totals = 292:	50	59	8	7	3	165

Table 11.--Bivariate Frequency Table for Statement 5 and Question 4

Responses to Statement 5:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 4:						
The major subject area of academic concentration						
Home Ec Ed	3	10	1	3		3
Food & Nut.	4	18	4	1	1	
Home Manage., Fam. Ec. et al	2	3	2	1		1
Child Develop. & Family	1	9	7	2		
Textiles & Cloth.	2	2	1	1	1	
Two or more Social Sciences (one home ec)	6	9	5	2		3
Two or more physical sc. (one home ec)				1	1	
One So. Sc. & 1 physical sc.	2	3	3	5		1
Subject matter not considered home ec		1	1	2		
No Answer	1		2		1	160
Totals = 292:	21	55	27	17	4	168

Table 12.--Bivariate Frequency Table for Statement 7 and Question 4

Responses to Statement 7:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 4:						
The major subject area of academic concentration						
Home Ec. Ed.	2	13	4			1
Foods & Nut.	7	16	5			
Ho. Manag., Fam. Ec. <u>et al</u>	3	4	1			1
Child Develop. & Family	4	13	1	1		
Textiles & Cloth.	2	4		1		
Two or more social sciences (one home ec)	6	12	3	1		3
Two or more physical sc. (one home ec)		1	1			
One So. Sc. & one physical sc.	7	7				
Subject matter not considered home ec	1	3				
No Answer	1	1	2			160
Totals = 292:	33	74	17	3		165

Table 13.--Bivariate Frequency Table for Statement 10 and Question 5

Responses to Statement 10:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 5:						
The total undergrad majors enrolled						
Under 250	16	31	12	6		4
Under 500	3	14	8			2
Under 900	1	7	7	1		2
Under 1200	1	4	2	1	1	
Under 2000	2	1	1	1		
Under 3000		2				
Under 4500			1			
No Answer	1		1			159
Totals = 292:	24	59	32	9	1	167

5. A positive response to Statements 2 and 6 was significantly correlated to respondents total graduate majors enrolled in the administrative unit.

Statement 2: The central focus of Home Economics/Human Ecology is the Organism as Family in the context of the Near Environment.

Statement 6: The Ecological Systems Framework is a means of helping the profession to more consciously state and use the basic concepts of Home Economics/Human Ecology.

The results are summarized in Tables 14 and 15.

6. A positive response to Statement 6, The Ecological Systems Framework is a means of helping the profession to more consciously state and use the basic concepts of Home Economics/Human Ecology, was significantly correlated to respondents who are administrators of units that are State Colleges or Universities. Table 16 summarizes the results.
7. A positive response to Statement 10, The Ecological Systems Framework is a scientific tool that can aid the profession to view the Organism as Family in a more systematic, accurate and objective manner, was significantly correlated to respondents who are administrators of units with 1-5 full time faculty members. The results are summarized in Table 17.

Table 14.--Bivariate Frequency Table for Statement 2 and Question 6

Responses to Statement 2:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 6:						
Total graduate majors enrolled						
Under 25	6	13	2	4	1	2
Under 50	6	5	1		2	
Under 100	7	7		1		
Under 150	6	8	2			1
Under 225	1	4	2	1		
Under 280	1					
Grad courses only offered		1				
No Grad program	19	17	1	1		2
No Answer	4	4				160
Totals = 292:	50	59	8	7	3	165

Table 15.--Bivariate Frequency Table for Statement 6 and Question 6¹

Responses to Statement 6:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 6:						
Total Graduate Majors enrolled						
Under 25	3	13	8	2		2
Under 50	3	7	1	1	1	1
Under 100	1	11	2			1
Under 150	5	6	5			1
Under 225	1	4	2			1
Under 280	1					
Grad courses only offered	1					
No Grad program	14	16	10			
No Answer	5	2	1			160
Totals = 292:	34	59	29	3	1	166

Table 16.--Bivariate Frequency Table for Statement 6 and Question 7

Responses to Statement 6:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 7:						
Type of Institution of Higher Education						
Land Grant	3	12	8	1		1
State College or University	3	12	8	1	1	3
Private Institution	15	15	5	1		2
State College or University and Land Grant	2	4	2			1
City University		1				
No Answer	1					159
Total = 292:	34	59	29	3	1	166

Table 17.--Bivariate Frequency Table for Statement 10 and Question 8

Responses to Statement 10:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 8:						
The Administrative Unit's Full Time Faculty						
1-5	13	16	6	5		2
6-10	4	14	6	1		1
11-15	2	9	8			2
16-20		8	2			
21-25	1	3	1			1
26-30			2			
31-35		1	2	1		1
36-40		1	2			
41-50					1	
51-60	1	1	1			

8. A positive response to Statement 1, The Family is the central focus of Home Economics/Human Ecology, was significantly correlated to respondents who administer units whose present title was made official between 1910 and 1929. The results are summarized in Table 18.

9. A positive response to Statements 8 and 12 was significantly correlated to respondents who are administrators of units which have undergone no changes in administrative structure. The results are summarized in Tables 19 and 20.

Statement 8: The Ecological Systems Framework is a system through which the Organism as Family can be perceived in relation to other systems.

Statement 12: Defining the Organism as Family in an ecosystem reflects the profession's concern with serving all families.

10. In summary, positive responses to Statements 1, 2, 5, 6, 7, 8, 10 and 12 on the Opinionnaire are significantly correlated to the demographic information in questions 2, 3, 4, 5, 6, 7, 8, 10 and 12. Some of these correlations indicate that a more in-depth view of these relationships needs to be explored to establish the full meaning of the survey data. The overall pattern seems to indicate either agreement or uncertainty about the focus and mission of Home Economics/Human Ecology. The potential usefulness of the

Table 18.--Bivariate Frequency Table for Statement 1 and Question 10

Responses to Statement 1:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 10:						
The present title was made official						
1900-1909	2					
1910-1919	10	2				
1920-1929	16	4				
1930-1939	6	4	1			
1940-1949	8	5		1		
1950-1959	7	1		1		
1960-1964	3	3				
1965-1969	5	4	3	1		1
1970-1973	9	6	2	1		
No Answer	16	5		4	1	160
Totals = 292:	82	34	6	8	1	161

Table 19.--Bivariate Frequency Table for Statement 8 and Question 12

Responses to Statement 8:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 12:						
The Administrative unit has re-organized the structure						
No change	27	56	12	2		
Change in process		1				
<u>*Superficial Change</u>						
"U" structure change but no internal change	2	2	1			1
"U" title change but no reorganization	1	6				
Re-grouping of Div. or Dept. by Sub. Matter or Career. (Physical re-group)	1	4				
Role of administrator changed	1	1	1			
More student-faculty participation		1				

Table 20.--Bivariate Frequency Table for Statement 12 and Question 12

Responses to Statement 12:	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	No Answer
Responses to Question 12:						
The administrative unit has reorganized the structure						
No change	34	46	7	6		
Change in process		1				
*Superficial Change						
"U" Structure change but no internal		5				1
"U" title change but no reorganization	2	4	1			
Re-grouping of Div. or Dept. by Sub. Matter or Career (Physical re-group)	1	3				
Role of administrator changed	1	2				
More student-faculty participation		1				

Table 20.--Continued

Ad. Unit is now interdisciplinary	1	1	1
Change but no reorganization	2		
Admin. hierarchy changed	2		
<u>*Reorganization:</u>			
Philosophical and/or Conceptual change	1	1	
No Answer			168
Total = 292:	43	64	8
			6
			171

ESF was in general agreed upon by the administrators who responded to this survey.

Are the Respondents Consistent?

The validity and reliability of the Opinionnaire can to some extent be determined. Both the truthfulness and dependability can be viewed when statements that deal with related concepts that build on each other are given consistent ratings by the respondent. For this purpose, responses to four sets of related statements were compared.

1. If the respondent answered Strongly Agree or Agree to statements that deal with the definition and goal of Home Economics/Human Ecology,³ did they rate statements that relate the ESF as a means for defining the focus equally strongly?⁴ This analysis is summarized in Table 21. Ninety respondents or 31% of the opinionnaires met the criterion for comparison. From Table 21 it would appear that there is a consistency between the two sets of statements. Those who strongly agree or agree on statements that clarify the definition and goal of Home Economics/Human Ecology also tended to give positive answers to statements that suggest that the Ecological Systems Framework is a means for doing that.

³Statements 1, 2, and 16.

⁴Statements 5, 6, 8, 9, 11, 12, and 13.

Table 21.--Number of Respondents Giving the Same (SA,A) Response to the Statements 1, 2, and 16 and Statements 5, 6, 8, 9, 11, 12, and 13

Responses to: What is Home Economics/Human Ecology? Statement Number 1, 2, and 16.					
	<u>Strongly Agree</u>	Uncertain	<u>Strongly Disagree</u>	No Answer	Total
Responses to:					
The ESF can help to define the focus of HoEc/HumEc					
Statement Number					
5	58	19	11	2	90
6	68	18	2	2	90
8	77	12	1		90
9	63	18	5	4	90
11	75	10	5		90
12	80	6	3	1	90
13	66	13	8	3	90

2. If the respondent answered Strongly Agree or Agree to statements that deal with the Ecological Systems Framework as a means of defining the central focus of the discipline,⁵ did they rate statements that clarify the Ecological Systems Framework as a tool to organize and comprehend those concepts equally strongly?⁶ This analysis is summarized in Table 22. Forty-one respondents or 14% of the

Table 22.--Number of Respondents Giving the Same (SA,A) Response to the Statements 5, 6, 7, 8, and 9 and Statements 10, 11, and 13.

Responses to: The ESF is a means of defining the central focus of the field. Statements 5, 6, 7, 8 and 9					
	Strongly Agree Agree	Uncertain	Strongly Disagree Disagree	No Answer	Total
Responses to:					
The ESF is a tool to orga- nize and to perceive the central con- cepts.					
Statement Number					
10	38	3			41
11	37	4			41
13	36	2	2	1	41

⁵ Statements 5, 6, 7, 8, and 9.

⁶ Statements 10, 11, and 13.

opinionnaires met the criterion. From Table 21 it would appear that there is a degree of consistency between the two sets of statements that indicate that the ESF defines the central focus and is a tool that can be used for that purpose by the profession.

3. If the respondent answered Strongly Agree or Agree to statements that indicate that the ESF may be a tool for the profession to use,⁷ did they rate statements that also state that the ESF is a tool and a comprehension of the discipline equally strongly?⁸ This analysis is summarized in Table 23. Twenty-eight or approximately 10% of the opinionnaires met the criterion. From Table 22 it would appear that there is a consistency between the ratings given on the two sets of statements that indicate that the ESF is a tool and one that can be used by the profession.
4. If respondents answered Strongly Agree or Agree to statements that deal with the ESF as a stage in the evolution of the discipline's central focus,⁹ did they rate statements that indicate that the family is the central focus and mission equally strongly?¹⁰ The analysis is summarized in

⁷Statements 7, 10, 13, 14, and 15.

⁸Statements 6, 8, 9, 11, and 12.

⁹Statements 3, 4, 5, 6, 9, 11 and 13.

¹⁰Statements 1, 2, 12, and 16.

Table 23.--Number of Respondents Giving the Same (SA, A) Response to the Statements 7, 10, 13, 14 and 15 and Statements 6, 8, 9, 11 and 12

Responses to: The ESF is a tool. Statements 7, 10, 13, 14 and 15.				
	<u>Strongly Agree</u> Agree	Uncertain	<u>Strongly Disagree</u> Disagree	No Answer
Total				
Responses to:				
The ESF is a tool and a comprehension of the discipline's focus.				
Statement Number				
6	27	1		28
8	27	1		28
9	22	4	2	28
11	26	1	1	28
12	26	2		28

Table 24. There were 30 or 10.3% of the opinionnaires that met the criterion. From Table 24 it would appear there is a consistency between the ratings given on the two sets of statements that indicate that the ESF is one stage in the evolution of the central focus and the family is the central concept. The relationship of responses between sets of statements on the opinionnaire would indicate that there is a strong degree of consistency between how the respondents

Table 24.--Number of Respondents Giving the Same (SA, A) Response to the Statements 3, 4, 5, 6, 9, 11 and 13, and Statements 1, 2, 12, and 16.

Responses to: The ESF is a stage in the evolution of the central focus of the discipline. Statements 3, 4, 5, 6, 9, 11, and 13.				
<u>Strongly Agree</u> Agree	Uncertain	<u>Strongly Disagree</u> Disagree	No Answer	Total
Responses to:				
The Family is the central concept and mission of the profession.				
Statement Number				
1	28	1	1	30
2	29		1	30
12	29	1		30
16	30			30

rated statements clarifying the focus of the discipline and the ratings given to statements about the potentials of the ESF as the next stage in the evolution of the central focus of Home Economics/Human Ecology.

Conclusions

The descriptive data compiled from the ESF Opinionnaire Packet indicates an overall positive pattern of responses to the statements. The meaning of this is speculative. It might be best summarized by saying that the reactions of the population who responded appears to be positive to the proposed ESF and this reaction need to be explored in greater depth. The administrator, the unit administered, and the amount of superficial and structural changes or demographic data seems to be related to the way the administrator views the central focus of the field and their reaction to the proposed ESF.

The descriptive data from the content analysis and the ESF Opinionnaire Packet complement each other. Whether asking about changes in the profession through an analysis of some available literature or through proposing a specific change such as the ESF, from these two kinds of surveys the following conclusions can be drawn.

- a) The profession is changing.
- b) The profession is changing more in accord with the pressures of the unique institutional setting rather than becoming more like an agreed upon focus of Home Economics/ Human Ecology.
- c) The concepts that are related to the discipline of the profession and the way these concepts relate to the structure of the intellectual hierarchy of an applied science do not seem to be clearly communicated and/or be understood by the leaders of the profession.

- d) The profession is still experiencing an image/identity crisis and one reason may be that the scholarly base has not been made explicit and has not gained a degree of consensus by the professionals that comprise the social system referred to as Home Economics/Human Ecology.

These conclusions need further study and the priorities for such explorations need to be clarified. How should the profession invest its energies given the state of academia, the American Home Economics Association and the needs of the larger social order?

The results of this study's surveys reflects some of the shortcomings of these types of research. It is as important to consider who did not respond and why as well as to consider the results of those who took the time from their demanding duties. This former group would no doubt provide a wealth of important insights.

Surveys are also subject to all the nuances of how material is asked for, by whom, when and the readability/credibility of the information sent. Further, the statements on the structured opinionnaire may not have elicited the true picture of the respondents opinions and experiences because of the limitations of shared meanings of the language used.

It is clear from the data from the content analysis and the ESF opinionnaire Packet that there is a need for the profession to study in a systematic and scientific way the scholarly bases of the discipline and then to allocate the human and material resources to facilitate the continued evolution of the field towards maturity.

CHAPTER VI

THE USES OF THE ECOLOGICAL SYSTEMS FRAMEWORK

Introduction

Given the positive responses of those who reacted to the ESF Opinionnaire Packet Opinionnaire, the purpose of this chapter is to clarify how the ESF can be used as a tool. The Ecological Systems Framework is a proposed explicit comprehension of the central focus of Home Economics/Human Ecology. It places the emphasis on the organization of the units of the conceptual system and the basic assumptions. The ESF provides a means of integrating the content focus and attempts to illustrate and describe the basic concepts. Precisely defining the focus can facilitate the development of all of the dimensions of the profession and is crucial both to the inventory and codification of the field's concerns.

To use the ESF it is helpful to liken the framework to a map. While this analogy has some inherent dangers, it can provide some understandings of the potentials of the ESF. As with geographical maps, in order to explore the macro and micro aspects of a region, a number of different maps are usually employed. From the larger vantage point to the specific street in a particular city, a map can lead and direct attention on the point being sought and the

contextual relationship to other nearby and distant locations. This is especially important when the most efficient and logical strategy can mean that human and material resources can be used to best advantage as a result.

Because the ESF is an overarching map of the profession's central focus, it represents a macro-view of the landscape. Other complementary maps are needed. The ESF can facilitate the search for all that is being looked for and group concepts together with their interrelationships depicted in a condensed and simplified format. With a framework or map, it is easier to keep in mind what variables are being sought.

The ESF represents the logical deductive development of the evolution of the central theme of Home Economics/Human Ecology and reflects one level of reality. It is meant to be used as a tool that is in the process of refinement and represents also, like a road map or aerial photo, an abstract view of some reality. It is meant to be a guide that can add meaning and clarity of direction. Used as it is meant to be used it can offer insight into a complex of phenomenon on which the profession centers its activities.

How to exploit the potentials and limitations of this representation is the purpose of this chapter. Concepts in Chapter IV will not be reiterated but illustrated through amplification and examples.

Images¹ and Perceptions:² The Senses at Work

We all have mental impressions of the three primary aspects of systems: structure, process and history. These images have some shared commonalities and meanings as well as some unique aspects. The selectivity processes of the receiver tends to make the view of the world that is perceived only the familiar one which is a reinforcement for our existing attitudes and to avoid situations in which such reinforcement will not be found (Rogers, 1971, pp. 8-9). The mind does not recognize anything just because it is "there" in the environment.

The reality of our images of the world, long an elusive object of philosophical thought, may be grasped on one level by mapping the complex properties of a system which are independent of the origin, material, and individual identity of their components. There are some fundamental logical unities in all multi-looped systems. Therefore, the value in making explicit the map or framework of the shared basic meanings is that one level of reality can be discussed, refined and the assumptions then exposed and debated (Laszlo, 1969, pp. 99-100).

¹Image: A mental representation of something previously perceived in the absence of the original stimulus.

²Perception: A single unified awareness derived from sensory processes while a stimulus is present.

The three selectivity processes that filter the reality of our worlds include: selective exposure, selective perception and selective recall.

Selective exposure is the tendency to attend to . . . messages that are consistent with one's existing attitudes and beliefs.

Selective perception is the tendency to interpret communication messages in terms of one's existing attitudes and beliefs.

Selective recall is the tendency to remember communication messages as consistent with one's existing attitudes and beliefs (Rogers, 1971, p. 9).

The ESF as a tool has the potential to facilitate the focusing of attention of the observer on selected concepts and on the patterns of their reciprocal relationships. As a result, it is more likely that shared meanings can evolve concerning the central focus of Home Economics/Human Ecology. That is not to imply that the proposed ESF is a finished product. It is a means toward developing a central focus for the field and represents one step in that process.

Even in the present state of its evolution, there are many uses for the ESF that can be tapped. By providing one comprehension of the overarching complex abstractions of Home Economics/Human Ecology, the framework pictures a reality that can be: 1) confirmed or remain unaffected, 2) simply added to, 3) clarified, or 4) facilitate revolutionary changes or conversion (Boulding, 1970, pp. 30-31).

Boulding notes that images may also be modified in contrary effects: 1) by introducing doubt or uncertainty, and 2) by

introducing individual or organization "fact" and "value" (Boulding, 1970, pp. 32-33).

One of the most important propositions of this theory is that the value scales of any individual or organization are perhaps the most important elements determining the effect of the messages he receives on his image of the world. If a message is perceived that it is neither good nor bad it may have little or no effect on the image. If it is perceived as bad or hostile to the image which is held, there will be resistance to accepting it (Boulding, 1970, p. 33).

. . . messages which are favorable to the existing image of the world are received easily and even though they may make minor modifications of the knowledge structure, there will not be any fundamental reorganization (Boulding, 1970, p. 34).

What this means is that for any individual organism or organization, there is no such thing as "facts." There are only messages filtered through a changeable value system Part of our image of the world is the belief that this image is shared by other people like ourselves who also are part of our image of the world (Boulding, 1970, p. 35).

This summary of Boulding's discussion of "images," points out some of the many difficulties of (1) accepting the need for an explication of the central focus of the field, (2) viewing the ESF image as one possible evolutionary stage and (3) perceiving the potential uses of the ESF.

A gatekeeper is someone or an organization that controls the flow of messages in a communication channel. It is conceivable that the value scale of a profession can mediate or act as a gatekeeper for confirming, refining and/or developing the images and, therefore, the identity of the profession. This can be lessened by applying the

scientific enterprise to the tasks of examining all the facets of the scholarly base and rationales of a discipline.

One rationale for using the ESF as a tool is to facilitate an understanding of the processes that filter the realities and images of individuals and organizations. By applying the scientific approach and by talking about the images of the world through the human gift of symbol-verbal language, the profession is more likely to make the central focus of the discipline a public one and, therefore, one that can be challenged. It can provide the field with a universe of discourse that can be used to describe the growth and development of a common shared meaning.

Where there is no universe of discourse: no manifest shared image; where the image of discourse is a private one, a shared reality is not feasible. Then universal discourse inter- and intra-professionally is fragmented, fuzzy and diffused.

Verbally, Home Economics/Human Ecology has defined its mission as the study of the relationship of the individual and the family in his near environment. The human organism in the context of the family as an ecosystem is pictured as a social system which can realize a quality life through rational means. Home Economics/Human Ecology seeks to help families help themselves to that end.

The ESF is an abstracted view of that commitment. It differs from previous approaches in some of the ways outlined in Table 25.

Table 25.--From the Linear to an Ecological Focus

<u>From</u> the Linear Framework	<u>To</u> the Ecological Systems Framework
Fragmented concepts and "parts"	a holistic view and a way of perceiving the relationships between parts of a whole. The whole is greater than the sum of the parts.
A more static view of the concepts	systems process-structure elaborating framework.
Linear cognitive mapping	complex multi-looped cognitive maps that reflect reality in more adequate ways.
National perspective	global, cross-cultural perspective
Circumscribed value laden language	general systems language as a <u>means</u> of connoting service to all families and working with complementary helping professions in teams. It represents a striving for a scientific language that has common shared meanings that can be quantified.
Intellectual bias "sets"	fresh means of viewing relationships and interfaces between and among open systems.
A broad vague look at man in and as environment	A view of organism and organism as family as an open system that are always in relation to other open systems.
Goals that seek "improvement"	goals that seek to view rationally the concept of the organism as family in interrelationship with the near and distal environment and the decision process is based on this.
Cause and effect relationships	energy exchange transactions and consequences predicted in environmental context.

Table 25.--Continued

<u>From</u> the Linear Framework	<u>To</u> the Ecological Systems Framework
Goals that define research goals of the profession as sources of generalized information and inspiration	research goals that are deductively and inductively developed and quantified in specific relationship to the multi-loop system of the profession and the multi-loop related systems with which the profession is concerned.
Interdisciplinary approach	problem oriented approach
Emphasis on information storage	information processing is emphasized along with information storage. This includes man and/or machine systems.

The Organizational Context of the ESF

At the most fundamental level, knowledge is organized experience and the search for knowledge is a search for patterns of organization. The organization can be created or discovered. At an absolute minimum, man must generate enough knowledge to insure survival. Ideally, this knowledge should be reliable, accurate, corrigible, communicable and useful in man's effort to adapt to the environment and modify the environment.

The social and physical environment is enormously complex and the human mind has been prolific in the development of concepts that can order and arrange man's perception of the environment. This

study deals with the kinds of organization of experience that enables the profession to anticipate and control the short-term, long-range events and consequences that take place in the physical and social environment that is usually called scientific knowledge, and knowledge that is available in oral or written form. The kind of knowledge that can be critically and analytically evaluated and, therefore, makes possible the cumulation of reliable knowledge which is the ultimate goal of science. If knowledge is organized human experience, the manner in which experience is organized, including the processes by which explanations are created or formulated, will depend on the operation of the perceptive and cognitive apparatus in man and on the purposes for which knowledge is needed and used.

The quality of knowledge is dependent on the purposes that it will serve. A claim to know is no more than an assertion that a particular way of organizing human experience is useful for a particular purpose. Without a statement of purpose, usefulness cannot be judged.

The aim of inquiry is to acquire some measure of control over a particular event or set of events and an instrument or tool that will perform that function is useful. The explanation is then defined as a way of organizing human experiences in the near environment to show how or why events occur by linking those events to other events according to some rules, patterns or guidelines.

The ESF represents a systems paradigm that suggests the desirability of explaining particular related events in a particular organized order. If the contextual conception of the inquiry

remains constant the ESF has two virtues: practicality and conceptual simplicity. It can make possible the systematic pursuit of explanations and the systematic application of explanation. And by separating the logical and the empirical aspects of explanation, neglecting either dimension can be avoided.

The ESF suggests a usefulness in creating models at other levels of the intellectual hierarchy which can be refined through observation, experiment and application, thus leading to a complementary empirical overarching framework for the profession that can provide three basic goals of the intellectual structure: Description, explanation and evaluation.

Turning to the community of scholars, one can see several kinds of structuring. Most obvious are the literal structures: institutions and facilities and human beings. Second, there are the social structurings in these physical objects: faculties, professional societies, departments, roles and specialties; contracts, leaves of absence; the stuff, in short of academia. Neither the literal nor the social structurings would make the least sense without the third structure, which is wholly intangible: The intellectual structure of scholarly thought itself, its language and models and logic. Since all three of these kinds of order would disintegrate if the flow of fossil fuel energy (in the form of electrical power, money, and food) were cut off, they are all dissipative (open) structures, coupled to each other, although conceptually separable. The creation and maintenance of these structures is one of the many ways in which solar (including fossil fuel) energy is stored pending its ultimate dissipation into space (Blackburn, 1973, p. 1143).

I now consider in more detail a specific model of intellectual structure Depending on what sort of scholarship is involved, and the degree to which a formal deductive structure is possible under its paradigms, such a hierarchical pyramid may be many, or only a few,

levels "high" The object of scholarship in most fields is to structure the data of immediate experience and to distill from them meaningful generalizations that, on the one hand, summarize much information at the level of experience and, on the other, serve as data for generalizations at the next higher level. Clearly such a general model is applicable in only a general way to any one of the spectrum of scholarly efforts, ranging from literary criticism to the proof of mathematical theorems (Blackburn, 1973, p. 1143).

There is a formal resemblance between the community of scholars and what biological ecologists have been willing to call ecosystems. Consider the definition of ecosystem in this article: An ecosystem is a group of living organisms related by their common access to a well-defined energy flow and by their participation in a web of nutrient and information flows What distinguishes the academic ecosystem from other units of the fossil fuel economy is just this additional peculiarity (i.e., the flow of information according to the three hierarchical structures) (Blackburn, 1973, p. 1145).

Level I of the Intellectual Hierarchy: The ESF as an Overarching Framework for Home Economics/Human Ecology

Neither the literal nor the social structurings would make sense without the third structure, which is wholly intangible: The intellectual structure of scholarly thought itself, its language and models and logic (Blackburn, 1973, p. 1143).

In order to use the ESF, the context of the framework will be outlined. Since ESF is a comprehension of the overarching concepts with which the field is concerned, it represents the most basic conceptual organization.

I have chosen a hierarchical model because it points up the informational ecology of scholarship. From the point of view of information theory, a meaningful generalization is a highly improbable statement, one that is selected out of all the possible statements about a given set of experiences, quite as a distillation selects an improbable, low-entropy, pure substance out of a mixture. A correct, fruitful, generalization contains in a small space much information about experience on lower hierarchical levels for the same reason . . . that the chemical free energy of a pure substance is much greater than that of the same quantity of substance in solution. At the same time, a correct generalization makes redundant some (in the case of a perfect generalization, all) of the information on lower levels of the hierarchy (Blackburn, 1973, p. 1143).

This level of the intellectual structure of the profession has two distinct yet complementary dimensions: the logical bases and the quantitative-or-empirical bases. The objective of this study is to suggest the logical deductive base.

Level II of the Intellectual Hierarchy: The Specific Dimensions of a Profession

In the academic sphere, the ordering of the intellectual sphere is related to the function or use to which this level of information plays. The distinct dimensions do not operate as a vacuum but as an interacting system. The end goal is seen as producing knowledge and the initiating of members of the profession to produce knowledge. The ESF is a Level I overarching map that can offer guidance for the development of the dimensions in Level II of the intellectual hierarchy outlined in Figure 7. This conception

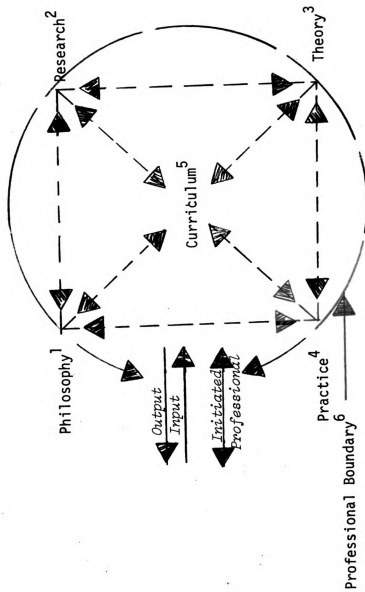


Fig. 7.--Level II of the Intellectual Hierarchy

Key to Figure 7.

Philosophy¹

The critical study of the basic principles and concepts of a particular branch of knowledge, a system of principles for guidance in practical affairs.

Research²

A systemized effort to discover or revise facts, theories, or applications that usually starts with a question. The scientific method is used as a means.

Theory³

A theory is a more or less verified or established explanation accounting for known facts or phenomena. A hypothesis is a conjecture put forth as a possible explanation of certain phenomena or relationships which serves as a basis of argument or experimentation by which to reach the "truth." Theory is a term that is used to mean general principles which seem to predict or account for events with an accuracy so much better than chance that we say the principle is "true."

Practice⁴

"Technology and Craftsmanship." The use and production of technical knowledge which will enable the home economics profession to "... (1) diagnose intelligently the needs of mankind relevant to our professional goal and (2) to use techniques which will achieve the purpose of helping persons to control those aspects of the environmental (that is) necessary and desirable" (Brown, 1967, p. 772).

Curriculum⁵

The experiences a learner has under the guidance of an education institution. It is the systematic arrangement of certain courses designed for certain students for defined purposes.

Professional Boundary⁶

The professional boundary is defined, according to Blackburn (1973) as an ecosystem that is defined by the flow of information by a structuring that is wholly intangible: The intellectual structure of scholarly thought itself, its language and models and logic. Home Economics/Human Ecology define its professional boundary by defining the profession as the study of the relationship of man in his environment and as a social being. The human organism in the context of the family in an ecosystem is pictured as a system which can realize a quality life through rational means. The Home Economics/Human Ecologist perceives the mission of the profession as helping all families realize a quality life.

of Level II of the intellectual hierarchy can be expressed as an open system with structure, process, and a history.

Common Features of Levels I and II

The common features of Levels I and II of the intellectual hierarchy can be summarized as follows:

- 1) There is an emphasis on the whole as a system while examining the elements and the interrelationships that make the organization of the system unique.
- 2) Each hierarchy involves abstract and concrete concepts.
- 3) Each involves interactions of machines or organisms with the man-made and natural environment.
- 4) The interactions are multi-loop reciprocal feedback systems that involve both immediate, as well as long-term consequences.
- 5) Each involves an element(s) of purpose or objective and utilizes control principles addressed to the purpose.
- 6) The energy exchange between and among the systems involves morphogenesis and morphostasis wherein the results of any act of these open systems are fed back to modify the initial act.
- 7) Each act represents a dynamic situation in which energy is utilized to respond to changes and yet to maintain stability of some sort (SEE Glossary: Equifinality).
- 8) The development, utilization and control of energy as matter-energy and/or information constitutes a main interest of Level I and Level II of the intellectual hierarchy.
- 9) The ecosystem boundary notion implies two fundamental life systems through which all organization and organizing occur: the metabolism of matter-energy and information (communication) systems.
- 10) Two levels of analysis are needed for Level I and Level II of the intellectual hierarchy: the individual and the multi-person system.

- 11) There are three primary aspects of the systems operating: structure, process and history.
- 12) Levels I and II of the intellectual hierarchy are inter-related with each other and to other open systems.

A General Guide for Using the Ecological Systems Framework

Premises and An Orientation for Using the ESF

1. Assumptions:

- a) The ESF is a comprehension of the basic concepts of Home Economics/Human Ecology and represents the Level I of the intellectual hierarchy.
- b) The basic concepts of the system have been identified as the organism (any systems level), the organism as family, the near environment and energy.
- c) The primary aspects of the system have been identified as: structure-elaboration, process and history.
- d) The organization of the ESF is through the interface of energy and the linkage of the two related systems. These then form a greater system within the ecosystem boundary of the ESF. Linkage also implies a regularized pattern of interaction between the two systems.
- e) The ecosystem boundary notion implies two fundamental life systems through which all organization and organizing occur: the metabolism of matter-energy and information (communication) systems.
- f) The organization of the ESF is comprehended as a whole system of parts of which the whole is greater than the sum of its parts.
- g) The interest of the ESF is in its power to organize the overarching components of the conceptual system.

- h) The mission of Home Economics/Human Ecology is to serve the organism as family to the ends of improving the quantitative and qualitative aspects of their ecosystem.
- i) There is a need to consider two different levels of analysis and the manner in which systems at these two levels relate to each other: 1) individual, and 2) multi-person.
- j) The ESF is a partial reflection of the aspects of reality with which Home Economics/Human Ecology is concerned.
- k) The development of the ESF will facilitate the evolution of a complementary empirical representation of the basic concepts of Home Economics/Human Ecology.
- l) The ESF is an open system in relation to other open systems and can interact with and be superimposed on other systems to perceive the multi-dimensional qualities of the variables.
- m) The ESF boundary is the outer boundary of the ecosystem of the family as organism.
- n) The ESF represents the Organism on two different systems levels: the individual organism and the multi-person level.
- o) The concept of the environment is represented on two levels: the near environment and the distal environment. The near environment are those conditions closest to the organism and therefore tend to be nearest and within the ecosystem boundary. They are the conditions that have a more immediate daily effect. The distal environment is linked with and interacts with the near environment but tends not to have the more immediate effects.
- p) Energy (matter-energy and information) is a vital interface.
- q) The reciprocal feedback systems of morphogenesis and morphostasis are complex and multi-looped within the system of the ESF and between other open systems.

2. Orientation:

- a) The ESF is a descriptive scientific tool.
- b) The ESF is used as an initial planning tool therefore, that can be used to develop the Level II dimension of the intellectual hierarchy of Home Economics/Human Ecology: Philosophy, Research, Theory, Curriculum and Action.

- c) The relationship of the concepts of the ESF have meaning because they share a common purpose which is essential to their abstracted relationships and each concept is dependent on the state of the other concepts. Every part of the ESF is so related to every other part that any change in one aspect results in the dynamic change in all other parts of the total system.
- d) The adequacy, use, and purpose of the ESF is to exert some control of the relationship of the concepts and, therefore, facilitate the growth of the image of Home Economics/Human Ecology.
- e) The goal of the ESF can be summarized as an explicit tool that organizes the focus of the discipline and can facilitate the development of the specific dimensions of the field.

Procedural Rules: Using the ESF as a Guide

1. Identify or define the goals of the investigator and the dimension at which the investigator is to make a point of entry: Philosophy, Research, Theory, Curriculum or Practice. The practical use of the ESF is dependent on this initial step being clarified.
2. Structure-Elaboration Procedural Rules:
 - a) Identify the level of analysis of each of the Organism(s) (individual and multi-person) in the ESF. These should remain a constant throughout the inquiry.
 - b) Identify the ecosystem boundary(ies) of the systems, subsystems, and suprasystems defined in procedural rule 1.
 - c) Identify to the degree possible, the quantitative and qualitative relationships in the systems, subsystems and suprasystems.
 - d) Identify to the degree possible, the synergy of the whole system to be studied. There is the contention that the flows of matter-energy and information are inseparably linked (Kallen, 1971).

3. Process Procedural Rules:

- a) Define the degree of openness of the system, subsystems and suprasystems under study, both quantitatively and qualitatively.
- b) Define the time rule (stop-frame reference or a moving picture of stop-frame reference). This should remain a constant throughout. To do this the dynamics of the process must be stopped as if looking at one frame of a moving picture OR the process must be mapped as it happens (Forrester, 1971).
- c) Identify the metabolism of the system(s) under study:
 - 1) The metabolism of information and the subset communication;
 - 2) the metabolism of matter-energy in the system(s);
 - 3) the metabolism when both are involved (J. G. Miller, 1971).
- d) Identify the morphogenesis and morphostasis multi-feedback loops of the whole of the system under study. Procedural Rule 3 (c) and (d) will usually develop together.
- e) The language of the process becomes part of the process. Operational and theoretical definition of terms need to be identified and used consistently. This picture of the process then represents the event(s) but it is not the event(s). It represents a map to explore the "real" world.
- f) Identify the following functions of the system (Berlo, 1970, pp. 8-9):
 - 1) production;
 - 2) innovation; and
 - 3) the maintenance function(s).

These are the purposes and consequences (long-range and short-term) that the organization or system(s) achieve.

4. The History of the System:

One of the primary aspects of a system is its history. To use the ESF effectively the history (J. G. Miller, 1971, p. 284) of the system(s) under study needs to be defined. That includes the changes that occur in the system(s) which are irreversible and are apparent or observable in structure-elaboration and process.

5. Define the variety of system to be studied: Conceptual, Concrete and/or Abstracted.
6. Define the logical-deductive dimensions of the specific kind of system(s) under study and/or the empirical-inductive dimensions.

The procedural rules as outlined are to be used in order. Because these are meant as guidelines they are flexible. When a procedural rule cannot be completed it may point out to the investigator that information is needed in that area in order to proceed, or as part of the goals to be included in the inquiry. (See Procedural Rule 1.) As the procedural rules are used, refinements will add to the usefulness of the ESF.

Some Results that Might be Expected From Using the ESF

1. The goals of the investigation will reflect a more complete view of what is being sought.
2. Gaps in information and goal formation may be identified at the initial stages of planning.
3. The structure, sources, pathways, repository sites and integrative functions of the metabolism of information and matter-energy are identified, as well as the contents of the investigation.
4. The holistic nonexclusive nature of the approach minimizes the danger of excessive selectivity in the collection of data and allows more clarity in the specific context of the investigation.
5. Steps which follow such an approach such as prescriptions, planning of strategies and techniques, gain in clarity and are more likely to be rooted in concrete realities.
6. The interfaces and linkages of the systems can be clarified and emphasized in relation to the stated goals.
7. It encourages the use of a variety of theoretical models which can be used to clarify the dimensions and the goals being sought.
8. The ESF can help to clarify and represent some of the bodies of research and knowledge which become useable through integration.

9. The ESF can form a bridge between other conceptual systems of single disciplines and their unique and shared conceptual focuses.
10. The prediction of long-term and short-range consequences can be systematically explored as multi-loop feedback phenomena (Forrester, 1971; Kallen, 1971).

The ESF is designed to be a communication system. In an information or data system the focus is on the mechanical flow of messages even with a listener included as one of the components. A communication system stresses the significances, competencies, purposes, functions and desires which the listener brings to the situation and are defined as crucial aspects of the system. An information system can be defined as extremely effective while still being an ineffective communication system. The latter stresses the meaning of the message flow to the people involved and the data acquisition--consumption practices (rational or not) of the consumers of the output of that system that may be intentional, explicit, or by accident. The important question is how are people using it, rather than how does it work?

The systems approach is more than language. The skeleton of the approach means that the user perceives the complex and inter-related hierarchy of the systems and their components organized and in the process of organizing plus the relation of the parts, one with the other. The three primary aspects of systems: Structure-elaboration, process and history are continually and intricately interwoven to even maintain a system. These webs have far-reaching ecological interrelationships and can be thought of as ecosystems. It is in the ecosystem notion that the two fundamental life systems

through which all organization and organizing occur: the metabolism of matter-energy and information systems. Man organizes himself thus with the environment and with other living systems as a complex phenomena. The ESF is a tool to help clarify these.

Man creates the reality and environment he knows and at the same time probably the mind by which he knows it and therefore himself. The process of becoming organized has multilateral mutually causal consequences and since how man becomes organized determines what he sees, hears, believes, comes to know--his sense of what reality is, in turn, determines how he can become organized. It is in this way that we arrive at what we see.

Some Examples of How the ESF Can be Used

The ESF defines an image of the interrelationship of the basic concepts of Home Economics/Human Ecology and, therefore, guides the development of a holistic concentration. Frameworks like the ESF are like having a set of eyeglasses ground specifically to explore the many facets of a reality. Complementary frameworks can emerge from, be used with, and superimposed on the ESF. As a result, a broader and more complete comprehension of the dimensions of the discipline can be facilitated. These frameworks then are practical organizational tools to communicate, generate research, and predict. Each kind of framework has a function for a specific purpose. The

ESF, like other frameworks, is not meant to be an ends but a means for clarification.

There are examples in recent literature which imply the use of an ecological systems framework approach. In addition to the specific examples cited, further amplification can be found by reviewing a number of recent related resources (Broderick, 1971; Buckley, 1967, pp. 123-125 and 159-161; Gardner, 1971; Graves, 1970; Hanlon, 1969; Hill and Hansen, 1968; Hook and Paolucci, 1970; Koenig et al, 1971; J. G. Miller, 1965, pp. 193-237, 337-379, 380-411, and 1971, 277-398; Nye and Berardo, 1966; Steidl, 1969; and Watzlawick, 1967).

Sims (1971)

One example of the application of a framework like the ESF is the research of Sims (1971). As a result of using such a tool in the planning stage she noted that:

Nutrient intake is recognized as but one of many environmental factors which act upon the genetic potential of the young child to influence his physical development. The syndrome of malnutrition occurs not in isolation, but within the context of an entire constellation of environmental factors which together contribute to the final manifestation of the problem . . . the approach (therefore) taken in the present study is ecological, i.e., the nutritional status of pre-school children is examined in relation to factors which characterize his near environment, particularly his family (Sims Abstract, 1971, p. 1).

In a more "traditional" linear cause-effect framework the approach to the problem of determining the "Nutritional Status of Preschool Children in Relation to Selected Factors Characterizing the Family Environment . . ." would have been to focus on what the child eats over time. Sims reasoned that the problem was a complex of interrelated factors: 1) the child; 2) significant others in his world; and 3) the child's ecosystem. After the initial planning stage, the specific model for this study was developed to facilitate a comprehension of the "world" to be focused on.

The primary contribution of the present research is the demonstration that multivariate analysis procedures may be effectively utilized to establish a typology of family characteristics and maternal attributes which, in turn, exerts a direct influence on the dietary intake and the consequent nutritional status of children within particular family environmental settings (Sims, 1971, pp. 197-198).

An Example of a Theoretical Application

Frameworks like the ESF, can be used with different dimensions of Level II of the intellectual hierarchy. The ESF is an overarching one that reflects the basic logical conceptual orientation of Home Economics/Human Ecology. The use of a Level I framework, like the ESF, can help make explicit the interrelationship of the complex variables that are to be studied.

An example of this kind of application of the ESF idea is that of Sims, Paolucci and Morris (1972), "Theoretical Model for the Study of Nutritional Status: An Ecosystem Approach."

The syndrome of malnutrition occurs not in isolation, but within the context of an entire constellation of environmental factors which together contribute to the final manifestation of the problem . . . the approach taken in the present model is ecological Nutrient intake is viewed as an output of the family system resulting from the interaction of matter-energy and information flows within the system. The child, as an independent ecosystem, processes the incoming nutrient supply in such a way as to produce as outputs of the system, his physical development and nutritional status (Sims, Paolucci, Morris, 1972, p. 197).

This framework encompasses the basic assumptions pictured or mapped in the ESF: the family is a whole organism that interacts with the near environment and energy is an interface. Both Level I and Level II stress the holistic approach to specific problem areas. The Sims et al model focuses on the study of some specific organisms, their interaction and relationship to the nutritional status of the child from a theoretical vantage point. The concept of the family as an environment (Sims, et al, 1972, p. 201) or ecosystem (Sims, et al, 1972, p. 200) is clarified by a model that explicates the specifics of that concept and a means for quantitative assessment.

For the purposes of this study, the two preceding examples are used to illustrate how the ESF idea as a master plan or point of reference can guide scholarly concerns of the profession. Viewing specific problems of philosophy, theory, research, curriculum and practice with the aid of the ESF means that the approach must be in the context of the organisms (any systems level), the environment (near and distal) and the interface of energy. It means that the

approach can facilitate dealing with multi-loop problems as inter-related, complex and holistic.

In the case of most scholarship, two kinds of energy flow are required: the quite literal expenditure of fossil fuel energy, to maintain expensive facilities, and the input of mental efforts which is difficult, perhaps impossible, to quantify . . . at the creative level in science, the high concentration of information in generalizations of broad scope has both logical and aesthetic value: an extremely "powerful" generalization is also "elegant" (Blackburn, 1973, p. 1143).

In the academic sphere, information plays the role of nutrient; a guess then is a dilute source of nutrients, containing less useful information than from the standpoint of information theory, its individual words give scope for. Even a dilute source of information, however, may be more useful than no information at all . . . science, or any other scholarly art, can hardly afford to operate with . . . prodigally low efficiency. . . . It is this point that the power of a correct generalization becomes evident Intellectual structuring tends to lead to a less wasteful information economy (Blackburn, 1973, p. 1144).

The ESF is presented as a scientific tool that has two virtues: it is an economically practical development which is also conceptually simple in order to communicate a complex of related ideas about the central focus of Home Economics/Human Ecology. The interest of the ESF is in its power to organize the basic concepts or units of the abstracted system. At this stage in the evolution of the framework of the central focus the deductive strengths can be used. As a complementary inductive-empirical base is developed the quantitative and qualitative statements about the profession will facilitate the development of a scholarly base to guide the

consistent implementation of the focus of the discipline and assure consequences that are planned and desired.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary objectives of this study were to define through a review of historical documents the need to make the central focus of the discipline more precise and explicit; to clarify some of the changes taking place in Home Economics/Human Ecology in higher education; and given a synthesis of these documents about the field to propose the next evolutionary stage of the central focus of the applied science of Home Economics/Human Ecology. The proposed Ecological Systems Framework integrates the internal evolution of the discipline's development over time and the external revolution in science of General Systems Theory applied to the Ecological Systems Approach. The ESF as presented is a deductive abstracted macro-map of the central focus of the field. From the literature reviewed a series of propositions have been deduced to facilitate the continued evolution of the central focus of Home Economics/Human Ecology.

Reactions to the proposed ESF were surveyed from the population of administrators of units of Home Economics/Human Ecology in higher education. Of the approximately 44% of the respondents who completed the structured 3 page opinionnaire included in the

Ecological Systems Framework Opinionnaire Packet, positive reactions for each of the sixteen statements ranged from 22% to 40% agreement (See Chapter V). The total population was used to ascertain the empirical data. The indication from those who responded was that the ESF was one way the central focus of the field can be mapped and the ESF had potential to be used as a tool.

Given the reactions of the population to the ESF, guidelines for using the ESF as a tool were developed. Since the ESF is presented as only one link in a series of evolutionary developments, as it is used, refinements, additions and changes can be made.

Conclusions

This study revealed the following:

- A. Home Economics/Human Ecology is changing and there is a need to make the central focus of the discipline more explicit and precise.
- B. There is a need to move the comprehension of the central focus from abductive statements to deductive and then to inductive scholarly activities.
- C. Given a synthesis of historical and contemporary literature about the field, the application of GST/ESA makes the deductive development of the central focus more feasible and the

Ecological Systems Framework is one proposed manifestation of that application.

- D. The reaction to the proposed ESF by approximately 44% of the population of administrators of all units identified as Home Economics/Human Ecology who responded to the ESF Opinionnaire Packet structured opinionnaire was in general positive. Their reactions indicate that the ESF is one comprehension which has the potential to be a useful tool.

If the profession has many means and many ends or one means and many ends, the predicted outcome will be some degree of chaos. If a profession has one means and one ends then rigidity can be expected. It is when a profession has many means to an explicit and agreed upon ends or focus that systematic growth and maturation can be predicted.

The ends of Home Economics/Human Ecology synthesized in this study is as an applied science and a "helping" profession which seeks to contribute to the welfare of families and individual family members as a conceptual focus and an organic whole in the near environment (Brown, 1967b and 1970). The implications are that there are qualitative and quantitative issues that relate to this focus.

The meaning and/or use the field ascribes to fundamental constructs reveals whether its philosophy is relevant for the present or only an emotional call to arms (Quilling, 1970, p. 257).

Recommendations

- A. There is a need for the profession of Home Economics/Human Ecology to establish an historical archive of important documents. The cumulative records of the field are an important part of its evolution and the written reports should be complete and readily accessible to the members of the social system.

- B. The field needs to clearly identify the different branches of the social system and the level of attainment of the professional within the social system. The Sixth Lake Placid Conference (1904) did record some foresight on this matter and suggested terminology. Home Economics/Human Ecology needs to complement the goals of the whole rather than perceiving the different levels of attainment of its members and the different branches as competitive.

- C. There is a need to clarify the central focus of the discipline in more explicit and precise ways. One of the implications of Quilling's study is that home economics does have " . . . skeleton conceptual frameworks which could be amplified and made relevant for the field" (Quilling, Abstract, 1970, p. 5). A number of specific frameworks are needed as guides as means of understanding the family as an ecosystem as a scientific endeavor.

Home Economics/Human Ecology needs to build their own systematic set of questions and tentative answers as concrete sets of

responses that signify agreement in the field. It can lend meaning to the discipline, enhance productivity as well as make the conceptual concerns explicit.

Quilling has proposed that concrete postulates and an inventory of research propositions be developed (Quilling, 1970, p. 258). "National Goals and Guidelines . . .," is an example and is a step in that direction (Schlater, 1970). This study proposes a series of propositions as well. (SEE Chapter IV.) Perhaps what is most lacking now is an organic whole for these activities so that such contributions can be viewed in a larger framework instead of as fragmented reports. Too often such reports are used and implemented without fully understanding how and where they fit into the holistic framework or focus.

- D. There is a need to define the theoretical and operational symbol language of the field to facilitate shared meanings and consistent implementation. Assumptions are drawn from the way language is used. Using symbols that promote vagueness can lead to a narrow view of the world as well as imply a value commitment that delimits the behavior of the profession (Brown, 1970 pp. 3-5).

Home Economics/Human Ecology uses terminology that implies images and perceptions of the profession. It is language that is used to describe and define the profession. Some of these terms are emotive symbols. This can operate to advantage to promote shared meanings but for a scientific applied area of

study it can also be a source of imprecise usage and cloud understandings. "Home," "family," "children," "food," "marriage," are some examples and each can be used as a concept or as a vested interest that merely subscribes to a cultural norm that would appear to be pursued as an ends. The latter view is not the goal of an applied science.

Quilling found in her examination of, "The Nature of the Family Projected by the Home Economics Profession as Evidenced Through Examination of the American Home Economics Association Literature," some indication of this.

- The Association's use of the term (family) is largely influenced by sociology's knowledge and theory
- The Association's use of the concept "family" is based in sociology's institutional approach
- The Association suggests that home economics can strengthen families by moving them from a life style characterized as independent, self-contained, and self sufficient to one which is interdependent, more open to cultural influence and socially supported.
- The Association maintains that home economics attempts to train individuals who will build families that have the following characteristic life style: They are primarily middle class, stable, unified, responsible to society, healthy, normal, their needs relative to food, clothing and shelter are adequately met, they strive to improve their life style, and they promote the culture's political ideology.
- The Association's use of the term is enclosed within specified boundaries and based on distinct values which guide and limit the comprehensiveness of home economics frameworks (Quilling, Abstract, 1970, pp. 4-5).

If the profession does, in fact, seek to serve all families not as a cultural institution but as a multi faceted concept worthy of scientific inquiry and yet uses symbols that limit the idea to families who act in certain ways and attain "success" through prescribed means then a careful examination of the use of language should be one aspect of the field's major concerns. Then if a particular value system, life style, status quo, and quantitative-qualitative bias is pushed it will be explicit and open to discussion.

General Systems Theory language does offer a set of symbols that can facilitate more precise language. It stresses dynamic process oriented terms that view the family as a group who share resources over time and the family as an ecosystem (Hook and Paolucci, 1970). Then the family can be comprehended as an open system in relation to other open systems in a more global context.

The Whorf-Sapir hypothesis also referred to as, linguistic relativity, states tenuously that:

In its broadest terms the theory states that the functions of one's mind are determined by the nature of the language which one speaks The particular language which an individual speaks will influence him and make him a different person than if he had spoken some other language (Terwilliger, 1968, p. 286).

. . . we need a psychological theory in order to evaluate this hypothesis--a theory of the mind and of language To fairly evaluate the Whorfian hypothesis . . . we must go beyond Whorf, and consider language in the

light of a general psychological theory . . .
 (and) can see what effects the language
per se may have on the mental life of
 man . . . the true relationship between
 language and the mind . . . (then) we will
 have arrived at a picture of man as a
 whole (Terwilliger, 1968, p. 294).

The use of symbols should not be taken lightly. Language may effect the way in which a profession behaves. There is a need, therefore, to clarify the operational and theoretical language that Home Economics/Human Ecology uses and to the ends of developing and evolving shared meanings within and between professions. Inspirational rhetoric has a place but if the field claims that it is an applied science then the verbal symbols employed need to be scientifically based.

- E. There is a need to implement the central focus of the discipline as an organic whole. The practice or technology-craftsmanship of an applied science should be an expression of what it says its central focus is (Brown, 1967, p. 772). The conceptual building blocks as an integrated whole should be the foundations from which the practical emerge, mature and evolve.

From the "Lake Placid Year Report," one aspect of the synopsis states:

Home Economics as a Discipline(.) Identify our unique body of knowledge. Develop clear conceptual framework. "Finish the French Lick Conference start!" Show the philosophical coherence between home economics concepts. Adopt an ecological systems conceptual frame. Develop a model showing interrelatedness and commonalities in home economics. Set priorities for concepts to

be taught. Identify levels of attainment
(Journal of Home Economics, April, 1974, p. 50).

Fifty members of the 234 Lake Placid invited conference participants contributed to the synopsis. It is one of four or five actions that were identified as the most important one to strengthen home economics in the near future. Home Economics/ Human Ecology has many strengths on which to build. The mandates of this study and others identified at the 1973 Lake Placid Conference are important ones for the profession to commit human and material resources to assure a growing strong future.

APPENDIX A
THE CONTENT ANALYSIS

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HUMAN ECOLOGY • OFFICE OF THE DEAN • HUMAN ECOLOGY BUILDING

October 6, 1972

I am a doctoral student in the College of Human Ecology, the Department of Family Ecology at Michigan State University. Dr. Norma Bobbitt is directing my research and my committee members include: Dr. Bernice Borgman, Dr. Jane Oyer, Dr. Beatrice Paolucci, Dr. Everett Rogers and Dr. Jean Schlater.

Dr. Joan Quilling investigated, "The Nature of the Family Projected by the Home Economics Profession, as Evidenced Through Examination of The American Home Economics Association Literature." The findings of this study are included in her unpublished doctoral dissertation completed in 1970 at Michigan State University. She noted that home economics has reached an evolutionary point where it must consolidate knowledge and theory for the sake of clarity and "... reveal concrete directional tendencies and needs for the time, chart a course of action that is grounded in realism, based on logic and founded upon principles that can serve as practical guides." The rationale for the study I am proposing was derived from Dr. Quilling's thorough and thought-provoking work.

The dissertation that I am preparing has one main objective: To propose an ecological systems framework for the field to facilitate the clarification of the aspects of reality with which the profession is concerned. It is assumed that the theoretical framework presently being used is only a partial reflection of this. The integrative model is to be developed through a systematic review of existing historical literature; by a content analysis of materials from universities undergoing major changes of emphasis and organization; by judgment of a validity panel who will critically review the proposed theoretical framework; and a synthesis of these methods and related existing literature.

The professional goal of this study is to develop this information so that it might be utilized as a guiding focus for the dissemination of present knowledge and the creation of new knowledge in the field. That additional refinements may be necessary is understood as part of the value of the feedback that will undoubtedly follow such a study.

-2-

One facet of this study is to determine the substance of the changes that are taking place in the profession that relate to the development of a theoretical framework as seen in a number of universities that have or are at present undergoing major changes of emphasis and organization. Your university has been identified as one of the institutions that is involved in change and thus we are requesting that you share with us the appropriate materials and documents that are specifically related to the following:

- 1) Re-organization
- 2) Name change

This material will be the focus of a content analysis to trace the evolution of some of the unifying themes presently being considered by the profession as being of major importance.

Your cooperation is solicited in order to make this study a worthwhile and comprehensive piece of literature that can be used by the profession. As one of the cooperating universities, the results of this study could be of value to your institution and provide direction for mapping further changes in your program. The results will be available for your use in 1975.

After completing my course work at MSU this year, I have returned to my position at the University of British Columbia while pursuing my dissertation. I am asking that the materials that you wish to be contributed to this study be forwarded to me at the following address:

SCHOOL OF HOME ECONOMICS
UNIVERSITY OF BRITISH COLUMBIA
VANCOUVER 8, BRITISH COLUMBIA
CANADA

Please submit your bill for expenses and you will be reimbursed for the materials and postage.

Thank you for your support and assistance in making this study a success.

Sincerely yours,

(Mrs.) Eleanore Vaines

Table 26.--Content Analysis: List of Items Received

Code No.	University	Items Forwarded	Audience for which items appear to be intended
1	Alabama	1. Cover Letter 2. (a) "School of Home Economics" Program in Family and Consumer Resources 3. (b) "Man-Environment Relations Research Programs" 4. (c) Mimeo "Summary of Events Regarding Proposal for Changing of Name for School of Home Economics" (3 pages)	PR PR Faculty (?)
2	Arizona	1. Cover Letter 2. "Working Document for Discussion Only, May, 1972, 'Premises and Issues Related to Future Focus, Department of Home Economics, College of Liberal Arts, Arizona State University.'"	Faculty
4	Maryland	1. Cover Letter 2. (a) News sheet entitled, "Proposals on Academic Reorganization to the College Park Senate of the University of Maryland" by Chancellor C. E. Bishop, August 23, 1971 3. (b) Newsletter--The College of Home Economics, University of Maryland, College Park, Maryland 20742, Spring 1972, Vol. 1, No. 1, (9 page mimeo)	Faculty & Alumni Alumni

Table 26.--Continued

Code No.	University	Items Forwarded	Audience for which items appear to be intended
4	Maryland (continued)	4. (c) College of Human Ecology, University of Maryland, College Park, <u>Philosophy</u> , (2 page mimeo), no date	Faculty (?)
		5. (d) Copy of National Goals and Guidelines for Research	The Profession
7	Michigan	1. (a) Family Ecology Program, Mimeo, May, 1972, 10 page mimeo	Faculty & Students
		2. (b) The Committee on the Future of Home Economics (79 page Booklet plus Appendix)	Administration, Faculty, Students, Alumni & Interested Groups
8	Cornell (New York State)	1. (a) Cornell University Announcements--New York State College of Human Ecology 1972-73 College Calendar	Students and Prospective Students
		2. (b) Forty-Fifth Annual Report, 1970	General
		3. (c) Forty-seventh Annual Report, 1972	General
		4. (d) Graduate Study in Human Ecology Fields at Cornell University (no date)	Prospective Students

Table 26.--Continued

Code No.	University	Items Forwarded	Audience for which items appear to be intended
8	Cornell (New York State) (continued)	5. (e) Forty-sixth Annual Report, 1971 6. (f) A mimeo report to the Faculty from David C. Knapp, Dean, Feb. 6, 1969 (14 pages) 7. (g) To College Faculty from Organization Committee, June 5, 1968 (43 page mimeo) 8. (h) Final Report of the President's Committee to Study the College of Home Economics, December 1966 (62 page mimeo) 9. (i) Vol. 3, No. 2, Autumn 1972, <u>Human Ecology Forum</u> 10. (j) Vol. 3, No. 1, Summer, 1972, <u>Human Ecology Forum</u> . 11. (k) Vol. 2, No. 4, Spring, 1972, <u>Human Ecology Forum</u> 12. (l) Vol. 2, No. 3, Winter, 1972, <u>Human Ecology Forum</u> 13. (m) Vol. 2, No. 2, Autumn, 1971, <u>Human Ecology Forum</u>	General Faculty Faculty Faculty (?) General General General General
9	Ohio	1. Cover Letter 2. (a) Untitled Xerox on the Mission of the School of Home Economics (5 pages), May, 1972	Faculty, Students, Alumni

Table 26.--Continued

Code No.	University	Items Forwarded	Audience for which items appear to be intended
9	Ohio (continued)	3. (b) Annual Report, School of Home Economics, The Ohio State University, July 1, 1971 to June 30, 1972 (209 pages and addendum, a-41) 4. (c) Annual Report, School of Home Economics, Division Reports, July 1, 1971 to June 30, 1972	General Faculty, Students, Academic Community (?)
11	Guelph (Ontario)	1. Cover Letter 2. (a) Pamphlet--School of Hotel and Food Administration 3. (b) Pamphlet--Graduate Program, Department of Family Studies 4. (c) Pamphlet--College of Family and Consumer Studies, Bachelor of Applied Science, University of Guelph 5. (d) Graduate Program in Consumer Studies, University of Guelph 6. (e) University of Guelph, ACADEMIC BRIEF, MacDonald Institute and School of Hotel and Food Administration, June 28, 1968	PR PR PR PR Academic Community

Table 26.--Continued

Code No.	University	Items Forwarded	Audience for which items appear to be intended
12	Pennsylvania State	1. Cover Letter 2. Single Item: "An Atmosphere for Excellence," Donald H. Ford, Dean, presented at the Faculty Meeting, September 15, 1972 (44 page mimeo)	Faculty
14	West Virginia	1. Cover Letter 2. (a) Mimeo on Name Change, July 1, 1966 (1 page) 3. (b) "Dear Home Economics Major:" A letter dated April 19, 1965 (a page xerox) 4. (c) Program Projections, Home Economics, by Mary Rose Jones; presented at Staff Conference, College of Ag-For, and Ho Ec. January 27, 1965 (4 page xerox)	Faculty (?) Student The Profession and Faculty
15	Wisconsin	1. Cover Letter 2. (a) Draft #3 of Courses 310-410, Approved by Advisory Committee, submitted for consideration of the School Faculty by Tom Witt and Jan Piliavin 3. (b) Final Draft, March 19, 1971, Conceptual Structure for Post-Master's Programs Within the School of Family Resources and Consumer Sciences (5 page mimeo)	Faculty Faculty

CODE FOR THE CONTENT ANALYSIS

Rules

- a) The unit of analysis is the complete thought or statements which may consist of between 3 sentences and a minimum of one sentence with a subject and predicate. (Single word units or short phrases do not appear to be useful units for this content analysis.)
- b) The categories of the content analysis have been identified as follows:

Code for the Content Analysis

Code Letter	Definition of the Category
p ¹	<u>Philosophy</u>: Statements that deal with the critical study of the basic <u>principles</u> and <u>concepts</u> of a particular branch of knowledge; a system of principles for guidance in practical affairs. <u>Principle</u>: A fundamental truth or doctrine on which others are based. <u>Concept</u>: A mentally conceived image of what is known, thought and felt about an idea.

¹An example of a P statement: "Effective July 1, 1972, our College will become the College of Human Ecology. The name change and the name chosen were . . . part of an overall intensive study" (5, B item, page 1)

Code Letter	Definition of the Category
0 ²	<u>Organization</u>: A process that is reflected in the unification of separate elements or parts into a working unit. The unit shares a common set of objective(s) over time. Statements that reflect organization that cannot be categorized as either curriculum organization or departmental organization. An example might be a statement of the organization's overall objectives.
0 (d) ³	(d) Departmental: Statements that refer to departmental organization of the specific units or structure of the organization.
0 (c) ⁴	(c) Curriculum: Statements that deal with aggregates of courses of study given in a college or university.

Using the code as a basis, specific instructions for the content analysis were established in accordance with Berelson's directives (1954).

²An example of an 0 statement: "The Committee on Graduate Education shall consist of the graduate field representatives of the College and two student members, with the Associate Dean for Research and Graduate Education serving ex-officio as executive secretary" (8, item F, page 1).

³An example of an 0 (d) statement: "The School is organized into three departments and offers training in nine major fields of study" (1, A item, page 1).

⁴An example of an 0 (c) statement: "The program provides: 1) a general education in the physical-biological sciences, social sciences and humanities; 2) a focal perspective and unification program in the human ecology core and the family ecology base which facilitates flexibility to move from one program to another, and after graduation, from one family-community role to another" (7, A item, page 2).

Instructions for Applying the Codes

- a) Every institution has a code number from 1 through 15. There are no materials from code numbers 3, 4, 6, 10 and 13.
- b) Every item that was forwarded from an institution has a letter identification such as a, b, c, and so forth.
- c) If page numbers have not been included on the material, these have been added.
- d) An example of an identification might read: 5 (institution), a (item), 3 (page).
- e) Identify the statements that you have cited as the subject matter (categories) by the code: P, 0, 0 (d), or 0 (c).
- f) Inferential Patterns: Please note the overall impression of patterns between documents that may become apparent and that can be documented. Ascertaining inferential patterns or qualitative patterns is difficult because of the subjective element. The reliability between coders is one means of overcoming this.

APPENDIX B

THE ECOLOGICAL SYSTEMS FRAMEWORK
OPINIONNAIRE PACKET

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HUMAN ECOLOGY • OFFICE OF THE DEAN • HUMAN ECOLOGY BUILDING

September 20, 1973

Dear

I am a doctoral candidate in the College of Human Ecology, the Department of Family Ecology at Michigan State University. Dr. Norma Bobbitt is directing my research and my committee members include: Dr. Jane Oyer, Dr. Beatrice Paolucci, Dr. Everett M. Rogers, and Dr. Jean Schlater.

The dissertation that I am preparing has one main objective: To propose an Ecological Systems Framework for Home Economics/Human Ecology to facilitate the clarification of the central theme with which the profession is concerned. You have been identified as a professional administrator involved with this matter and, therefore, qualified to comment on this framework.

We are requesting that you review the enclosed materials and return the Opinionnaire Packet with the Questionnaire completed by October 1st, 1973. Your cooperation is solicited in order to make this study a worthwhile and comprehensive piece of literature that can be used by the profession. The results will be available for your use in 1975.

While pursuing my dissertation, I am a member of the faculty at the University of British Columbia. I am asking that the materials be forwarded to me in the enclosed envelope at the following address:

SCHOOL OF HOME ECONOMICS
UNIVERSITY OF BRITISH COLUMBIA
VANCOUVER 8, BRITISH COLUMBIA
CANADA

Thank you for your support and assistance in making this study a success.

Sincerely yours,

(Mrs.) Eleanore Vaines

October 4, 1973

Dear Administrator:

I am a doctoral candidate at Michigan State University, College of Human Ecology, and on September 20th, I forwarded an Ecological Systems Framework Opinionnaire Packet to you. The response has been excellent and the returns are still being forwarded.

If you have a Packet and have not yet returned it and intended to do so, I would appreciate receiving it at your earliest convenience.

Thank you for devoting some of your precious time to this research.

Sincerely yours,
(Mrs.) Eleanore Vaines

MY PRESENT ADDRESS:

School of Home Economics, University of British Columbia,
Vancouver 8, British Columbia, CANADA

October 26, 1973

Dear Administrator:

I realize that you are a very busy involved person and that many requests cross your desk. It would add greatly to the value of the research that I am conducting as a doctoral candidate at Michigan State University, College of Human Ecology, if you would take a few minutes to read and react to the Ecological Systems Framework Opinionnaire Packet forwarded to you September 20, 1973.

I do appreciate your time and cooperation.

Sincerely yours,
(Mrs.) Eleanore Vaines

MY PRESENT ADDRESS:

School of Home Economics, University of British Columbia,
Vancouver 8, British Columbia, CANADA

THE ECOLOGICAL SYSTEMS FRAMEWORK: Opinionnaire Packet**

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**Pre-publication materials are not for duplication or distribution.

I. AN ECOLOGICAL SYSTEMS FRAMEWORK FOR THE PROFESSION

A. Introduction

Home Economics/Human Ecology is undergoing a series of evolutionary changes in the way the basic concepts of the profession are organized. These changes can be seen as stages in the development of the way that the profession perceives what the central focus of the field is. A revolutionary tool that promises to provide the tools and knowledge to facilitate this is General Systems Theory.¹

B. What is General Systems Theory?

General Systems Theory can be portrayed as:

- ...way of perceiving the world as a whole system² of variables that are working together;
- ...science of organizing and organization;
- ...theory that is a tool to be used by all disciplines;
- ...theory that encourages the development of visual models of the system under study;
- ...tool that can be used to picture variables in a dynamic and systematic way;
- ...tool that can facilitate the identification of the qualitative and quantitative aspects of a system;
- ...means of predicting the consequences of certain actions and strategies.

¹General Systems Theory: The study of systems for the purpose of identifying commonalities of systems found in different applications.

²System: An arbitrarily defined set of interdependent parts working together toward a common purpose such that the parts can be labeled, their boundaries defined, and their functions specified.

C. What is the Ecological Systems Approach?

The Ecological Systems Approach¹ applies the concepts of General Systems Theory and builds on those ideas to view man in a specific way. The Ecological Systems Approach:

- ...views man as a human organism;
- ...is a specific viewpoint that pictures the human organism in the context of his habitat or ecosystem;²
- ...pictures the human organism³ in his own ecosystem in relation to the natural and man-made environment;⁴
- ...pictures the way the natural and man-made environment relate to the human organism in his ecosystem;
- ...changes the vantage point of the viewer from looking at one part of a system to perceiving an overall view of the processes that are taking place among and between systems;
- ...and it helps the viewer to perceive all of the complex processes that are interacting together.

¹The Ecological Systems Approach: The ESA is the application of the General Systems Approach to studying the human organism, populations of human organisms as environment, and in relation to the natural and man-made environment.

²Ecosystem: A set of mutually interdependent species (organisms) and their environment, whose mutual existence depends, in part, upon the presence of each other.

³Organism: Any organized complex thing or system having properties and functions determined not only by the properties and relations of its individual parts, but by the character of the whole which they compose and by relations of the parts to the whole. An organism can be an individual human organism or it can be applied to other systems levels as has been done in this context: Organism as Family.

⁴Environment: Environment refers to the aggregate of surrounding things or conditions; the totality of external influences on an organism. There are different levels of the environment. Distal environment refers to surroundings that are further away and the near environment refers to the closest immediate external influences such as the habitat, food, clothing.

D. What are the Advantages of Using a Framework for Perceiving the Central Focus of the Profession?

A framework can be a useful tool. Using General Systems Theory applied to the Ecological Systems Approach, a framework has the following advantages:

- ...it is a tool that can be used for analysis and synthesis of complex related variables;
- ...a means of communicating these complexities;
- ...a means for clarifying the qualitative aspects of a system such as values, ethics and so forth;
- ...a means for defining the quantitative aspects of a system;
- ...a means of generating new ideas and refining existing knowledge;
- ...and a way of predicting the consequences of certain actions on a system.

E. What are the Disadvantages of Using a Framework for Perceiving the Evolution of the Central Focus of the Profession?

Using frameworks can also have disadvantages:

- ...a framework can picture the variables under study in a format that oversimplifies the actual process;
- ...it can hamper the viewer from perceiving other frameworks which can either be more accurate or which need to be superimposed in order to view the full meaning of the system;
- ...it can cause confusion between the abstract framework and the concrete behavior of a system.

F. The Evolution of a Framework for Home Economics/Human Ecology

The profession of Home Economics/Human Ecology is the study of the relationship of man in his environment and as a social being. The human organism in the context of the family¹ in an ecosystem²

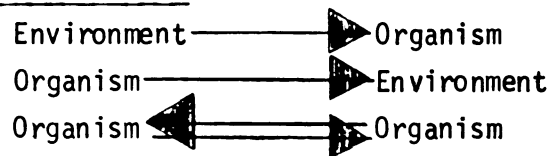
¹Family: An identifiable system of interacting personalities with common goals, commitments over time, and sharing of resources and living space; it is a specific environment mediating between the individual human organism and the larger society.

²Ecosystem: A set of mutually interdependent species (organisms) and their environment, whose mutual existence depends, in part, upon the presence of each other.

is pictured as a system which can realize a quality life¹ through rational means. The home economist perceives the mission of the profession as helping all families realize a quality life.

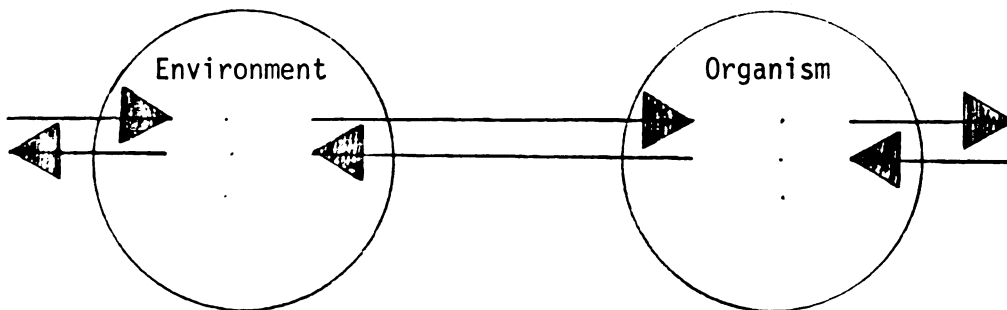
The profession has pictured this central focus in three frameworks that represent evolutionary changes in development.

STAGE I: The Linear Framework



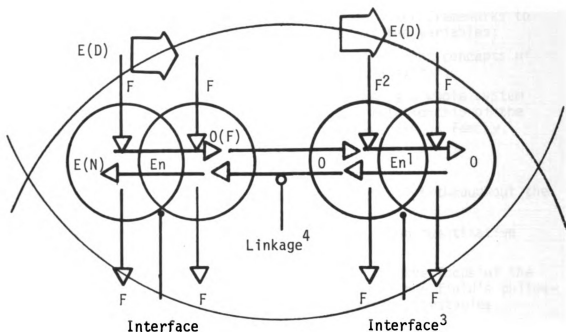
The Linear Framework pictures the central focus of Home Economics/Human Ecology in a format that connotes a direct cause-effect relationship in an essentially static and vague juxtaposition.

STAGE II: The Process Framework



The Process Framework pictures man as organism in relationship to the environment in a more dynamic way. It connotes the close relationship between these two dimensions as being affected by each other and affecting the larger environment. This stage represents a step forward in understanding the perception of the central focus of the profession.

STAGE III. The Ecological Systems Framework



KEY: $E(N)$ = Near Environment
 $E(D)$ = Distal Environment
 O = Organism (different systems levels)
 $O(F)$ = Organism as Family
 En = Energy¹
 F = Feedback Systems² (Complex input, output, exchange)

¹Energy: It is the interface and vitality of all living systems. The ultimate source of energy is the Sun. Energy can be defined in two broad categories: Matter-energy and Information. (See the Glossary of Terms)

²Feedback: Used here in the communication sense, as information returned to the sender of a message about the effect of the original communication. There are two kinds of feedback: Positive and Negative.

³Interface: In the context of this study the term is used to imply a relationship between two living systems that is an abstracted space relationship greater than linkage. An interface is essential to the vitality of two interacting open systems.

⁴Linkage: A term used to indicate that two systems are connected to form a greater system; it suggests a regularized pattern of interaction between the two systems which in a sense forms a bond between them.

The Ecological Systems Framework builds on the Process Framework and is a fuller comprehension of the central focus of the profession. The Stage III framework:

- ...reflects an open system that is in relation to other open systems;
- ...is a framework that can be superimposed on other frameworks to perceive the multi-dimensional qualities of the variables;
- ...is a dynamic framework that includes the important concepts of process and the structure elaboration of the system;
- ...defines the central focus of the profession as a whole system with the specific parts consisting of the relationship of the Human Organism (any systems level), the Organism as Family, the Near Environment, and Energy;
- ...defines the life-giving interface as energy;
- ...portrays the complex feedback pathways that exist throughout the system;
- ...a tool that can help define the qualitative and quantitative aspects of the profession;
- ...and a more precise tool with which to develop the focus of the profession in relation to the organization of the field's philosophy, theory, research, curriculum, and action strategies.

G. Summary

The Ecological Systems Framework is a way of perceiving the central focus of the profession. It is the application of General Systems Theory and the Ecological Systems Approach to the evolution of a framework for Home Economics/Human Ecology. This development is seen as a tool for the field to use in portraying the complex dynamic concepts with which the field is concerned.

Included in the Ecological Systems Framework Opinionnaire Packet is a Questionnaire which follows on pages through . Please take a few minutes of your valuable time to complete the Questionnaire. Please return all of the materials in the enclosed self-addressed stamped envelope.

PLEASE COMPLETE THE
ECOLOGICAL SYSTEMS FRAMEWORK QUESTIONNAIRE

SEE PAGES:

THANK YOU

ECOLOGICAL SYSTEMS FRAMEWORK QUESTIONNAIRE

The Ecological Systems Framework Questionnaire is a structured means of determining the extent to which the idea presented in the Packet is, in your opinion, a framework that would be a useful tool for Home Economics/Human Ecology.

PLEASE RESPOND TO ALL OF THE APPROPRIATE ANSWERS
THAT BEST DESCRIBE YOUR SITUATION

1. I have been an active professional home economist for approximately:
 - ☐ A. 1-5 years
 - ☐ B. 5-10 years
 - ☐ C. 10-20 years
 - ☐ D. 20-30 years
 - ☐ E. Other (please indicate)
2. I have been an administrator for approximately:
 - ☐ A. 1-5 years
 - ☐ B. 5-10 years
 - ☐ C. 10-20 years
 - ☐ D. 20-30 years
 - ☐ E. Other (please indicate)
3. The highest degree earned (Please indicate): _____
4. The major subject matter areas that I concentrate my academic work in are as follows (Please indicate): _____
5. The total undergraduate majors enrolled in the College, School, or Department in which I am an administrator is approximately:
 - ☐ A. Under 250
 - ☐ B. Under 500
 - ☐ C. Under 900
 - ☐ D. Under 1200
 - ☐ E. Other (please indicate)

6. The total graduate majors enrolled in the College, School, or Department in which I am an administrator is approximately: _____
- _____ A. Under 25
 _____ B. Under 50
 _____ C. Under 100
 _____ D. Under 150
 _____ E. Other (please indicate)
7. The institution of higher education in which I am an administrator is considered to be: _____
- _____ A. A Land-Grant College
 _____ B. A State University
 _____ C. A Private Institution
 _____ D. Other (please indicate)
8. The administrative unit for which I am responsible employs the following number of full time faculty (indicate the number please) _____
9. The present title of the administrative unit for which I am responsible is: _____
10. The present title was made official (please indicate date) _____
11. If there has been no title change, have there been any plans for the change of title? Yes:___ No:___ (Briefly describe) _____
12. The present administrative unit for which I am responsible has reorganized the administrative structure: Yes:___ No:___ . If so, briefly describe on reverse.
13. The present administrative unit for which I am responsible has undergone curriculum reorganization: Yes:___ No:___ . If so, briefly describe on reverse.

ECOLOGICAL SYSTEMS FRAMEWORK: QUESTIONNAIRE

Please check the one response that best describes your opinion of the statements below. Space is provided for you to include comments or suggestions.

	Strongly Agree	Agree	Strongly Disagree	Disagree	Uncertain
STATEMENT	5	4	3	2	1
1. The Family is the central focus of Home Economics/Human Ecology. Comment _____					
2. The central focus of Home Economics/Human Ecology is the Organism as Family in the context of the Near Environment. Comment _____					
3. The professionals within the field have perceived the Linear Framework as a first stage in the evolution of the profession's framework. Comment _____					
4. The Process Framework represents progress in comprehending the central focus of the profession. Comment _____					
5. Energy is a crucial missing interface in the Linear and Process Frameworks. Comment _____					
6. The Ecological Systems Framework is a means of helping the profession to more consciously state and use the basic concepts of Home Economics/Human Ecology. Comment _____					
7. The Ecological Systems Framework is a tool to develop and refine the profession's philosophy, theory, research, curriculum, and action strategies. Comment _____					

STATEMENT	5	4	3	2	1
8. The Ecological Systems Framework is a system through which the Organism as family can be perceived in relation to other systems. Comment: _____					
9. The Ecological Systems Framework is different from the Linear and Process Frameworks because it pictures the relationship between the Organism as Family in the Near Environment in a new way. Comment: _____					
10. The Ecological Systems Framework is a scientific tool that can aid the profession to view the Organism as Family in a more systematic, accurate and objective manner. Comment: _____					
11. The Ecological Systems Framework is one way for the profession to perceive the relationship of Home Economics/Human Ecology to other disciplines. Comment: _____					
12. Defining the Organism as Family in an ecosystem reflects the profession's concern with serving all families. Comment: _____					
13. The Ecological Systems Framework is an organization of the concepts that represent the central focus of the profession. Comment: _____					
14. The Ecological Systems Framework can be used as a tool to define quantitative aspects of the profession. Comment: _____					
15. The Ecological Systems Framework can help the profession define qualitative (moral, ethical, values) priorities. Comment: _____					
16. The goal of Home Economics/Human Ecology is to help the Organism as Family realize a quality life, over time. Comment: _____					

17. Additional comments:

PLEASE RETURN COMPLETED QUESTIONNAIRE AND ECOLOGICAL
SYSTEMS PACKET by October 1, 1973

to

Mrs. Eleanore Vaines
School of Home Economics
University of British Columbia
Vancouver 8, B.C., CANADA

III. GLOSSARY OF TERMS

Boundary

The boundary of a system is that region which separates one region from another. Components within the boundary can be distinguished from components that are outside the boundary.

Communication

A complex phenomenon defined through the following sequence:

- a. Matter-energy: The relativistic concept that all forms of matter and energy are really the same phenomenon with the apparent differences attributable to the nature of the sense organs of the perceiver, rather than to the nature of the energy form.
- b. Information (technical sense): The patterned structure of matter energy.

- c. Communication: Information (pattern) for which the receiver and the sender share a common experience with respect to the information. "Airplane" defines a fairly common referent situation in western society, "aoogk" does not.
- d. Information (communication sense): Patterned matter-energy for which there is a common referent experience, and an agreement that the information regularly denotes the same referent object or experience, with the additional provision that there is a corresponding reduction of uncertainty about the state of the perceiver's world.

The Ecological Systems Approach

This approach is the application of General Systems Theory to studying the human organism, populations of human organism as environment, and in relation to the natural and man-made environment.

Ecosystem

A set of mutually interdependent organisms and their environment, whose mutual existence depends upon the presence of each other.

Energy

It is the interface and vitality of all living systems. The ultimate source of energy is the Sun. Energy can be defined in two broad categories: Matter-energy and Information. (See Communication)

Environment

The aggregate of surrounding things or conditions; the totality of external influences on an organism. The near environment are those conditions that are closest to the organism and therefore tend to have a more immediate daily effect. The distal environment is linked to the near environment and in an abstract sense forms concentric circles around it.

Family as Organism

It is a system of individuals in a complex organized system. It is an identifiable unit of interacting organisms with some common goals, commitment over time and the sharing of resources and living space in an ecosystem that mediates between the organism as family and the larger society.

Feedback

Used here in the communication sense, as information returned to the sender of a message about

the effect of the original communication. There are two kinds of feedback: Positive and Negative.

General Systems Theory

The study of systems for the purpose of identifying commonalities of systems found in different applications. A science of organizing and organization.

Home Economics

". . . is the study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study specially of the relation between those two factors." (19: 70-71)

Human Ecology

The term connotes a complex conceptual systems framework. The focus of the framework is the organism as family in the near environment with the interface of energy. It represents a whole system of parts which is greater than the sum of the parts. The mission of Human Ecology is to serve the organism as family to the ends of improving the quantitative and qualitative aspects of their ecosystems.

Interface

In the context of this study I am using the term to imply a relationship between two living systems that is an abstracted space relationship greater than linkage. Interface is essential to the vitality of the two interacting open systems.

Linkage

A term used to indicate that two systems are connected to form a greater system; it suggests a regularized pattern of interaction between the two systems which in a sense forms a bond between them.

Open System

A system so structured so that there is an unimpeded flow of energy forms into, and out of, the system. The energy can be in the form of matter-energy or information.

Synergy

The advantage gained by the operation of a system that is not possible to gain by adding the separate contributions of the systems, subsystems or components: The Whole is greater than the sum of its parts.

<u>System</u>	An arbitrarily defined set of interdependent parts working together toward a common purpose such that the parts can be labeled, their boundaries defined, and their functions specified.
<u>Systems Level</u>	Systems Level ranges from the individual organism in the context of the organization through the simplest interpersonal system (the dyad), to the group (which could be formed on the basis of work relationships, communication relationships or in other ways), the organizational division, or the entire organization.

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Table 27.--Gross Categories for Regional Comparisons: Region 1-West
 Region 2-South
 Region 3-Midwest
 Region 4-North-
 east

Region 1	Code	State
	2	Alaska
	3	Arizona
	5	California
	6	Colorado
	C	Hawaii
	D	Idaho
	R	Montana
	T	Nevada
	W	New Mexico
	<	Oregon
	*	Utah
	—	Washington
	,	Wyoming
		13 States
Region 2	Code	State
	1	Alabama
	4	Arkansas
	A	Florida
	B	Georgia
	I	Kentucky
	J	Louisiana
	P	Mississippi
	Y	North Carolina
	:	Oklahoma
	:	South Carolina
	:	Tennessee
	\$	Texas
	;	Virginia
	-	West Virginia
		14 States

Table 27.--Continued

Region 3	Code	State
	E	Illinois
	F	Indiana
	G	Iowa
	H	Kansas
	N	Michigan
	O	Minnesota
	Q	Missouri
	S	Nebraska
	Z	North Dakota
	¢	Ohio
	&	South Dakota
	/	Wisconsin
		12 States
Region 4	Code	State
	7	Connecticut
	8	Delaware
	9	Washington, D. C.
	K	Maine
	L	Maryland
	M	Massachusetts
	U	New Hampshire
	V	New Jersey
	X	New York
	(	Pennsylvania
	+	Rhode Island
	)	Vermont
		12 States

Table 28.--Master List of States and Population Maximum

State	Maximum Population
Alabama	8
Alaska	1
Arizona	3
Arkansas	6
California	22
Colorado	2
Connecticut	2
Delaware	2
District of Columbia	1
Florida	2
Georgia	9
Hawaii	1
Idaho	3
Illinois	11
Indiana	6
Iowa	5
Kansas	3
Kentucky	8
Louisiana	9
Maine	2
Maryland	5
Massachusetts	4
Michigan	13
Minnesota	9
Mississippi	6
Missouri	7
Montana	2
Nebraska	5
Nevada	1
New Hampshire	2
New Jersey	5
New Mexico	5
New York	11
North Carolina	11
North Dakota	2
Ohio	12
Oklahoma	5
Oregon	1
Pennsylvania	15
Rhode Island	1
South Carolina	4

Table 28.--Continued

State	Maximum Population
South Dakota	1
Tennessee	9
Texas	19
Utah	3
Vermont	1
Virginia	8
Washington	5
West Virginia	6
Wisconsin	7
Wyoming	1
Total Population:	292

Table 29.--Survey Population

- A compilation: 1) Complete Membership of National Council of Administrators of Home Economics for 1972 as of February 16, 1972 (including Honorary Members);
- 2) U. S. Department of Health, Education, and Welfare, Office of Education, Bureau of Adult, Vocational and Technical Education, Division of Vocational and Technical Education, Washington, D. C. 20202, Heads of Home Economics Departments in Institutions Approved by State Boards for Vocational Education for the Training of Vocational Teachers of Home Economics (Revised Summer 1972).

STATE	NAME AND ADDRESS OF POPULATION
ALABAMA	Dr. Rebecca Pate, Chairman, Department of Home Economics, University of Montevallo, Montevallo 35115 Dr. Ruth Galbraith, Dean, School of Home Economics, Auburn University, Auburn 36830 Dr. Mary A. Crenshaw, Dean, School of Home Economics, University of Alabama, P. O. Box 1485, University 35486 Dr. Mary W. Huff, Chairman, Home Economics Department, Florence State University, Florence 35630 Dr. Louise Clark, Head, Home Economics Department, Jacksonville State University, Jacksonville 36265 Mrs. Dorothy Funderburke, Professor of Home Economics, Samford University, Birmingham 35209 Dr. Abigail K. Hobson, Chairman, Division of Home Economics, Alabama A & M University, P. O. Box 311, Normal 35762 Johnnie Prothro, Head, Home Economics, Tuskegee Institute, Tuskegee Institute 36088
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Table 29.--Continued

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Table 29.--Continued

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Table 29.--Continued

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Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
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Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
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	Dr. Betty Johnson, Head, Home Economics Department, Northern Illinois University, DeKalb 60115
	Dr. Mary Ruth Swope, Dean, School of Home Economics, Eastern Illinois University, Charleston 61920
	Dr. Rhea Shields, Chairman, Department of Home Economics, Chicago State College, Chicago 60624

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
ILLINOIS (continued)	Mrs. Helen D. Turner, Head, Home Economics Department, 260 Bevier Hall, University of Illinois, Urbana 61801 Dr. Ruth L. Bone, Dean, Home Economics Department, Northwestern University, Evanston, Illinois 60201 Sister M. Pierre Flynn, Dean, Home Economics Depart- ment, Mundelein College, Chicago 60660 Dr. Rubalee Morris, Head, Home Economics Department, Olivet Nazarene College, Kankakee, Illinois 60901 Dr. Doris D. Wilson, Head, Home Economics Department, Bradley University, Peoria 61606
INDIANA	Mildred Moore, Head, Home Economics Department, Ball State University, Muncie 47306 Dr. Anne M. Lee, Chairman, Department of Home Eco- nomics, Indiana State University, Terre Haute 47809 Margil Vanderhoff, Chairman, Home Economics Department, 204 Wylie Hall, Indiana University, Bloomington 47401 Dr. Norma Compton, Dean, School of Home Economics, Home Economics Administration Building, Purdue University, Lafayette 47907 Dr. Wilma L. Wohler, Head, Home Economics Department, Butler University, Indianapolis 46208 Dr. Olive G. Wyse, Head, Home Economics Department, Goshen College, Goshen 46526
IOWA	Dr. Helen LeBaron Hilton, Dean, College of Home Eco- nomics, McKay Hall, Iowa State University, Ames 50010 Dr. Marilyn Story, Head, Home Economics Department, University of Northern Iowa, Cedar Falls 50613

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
IOWA (continued)	Miss Mina Baker, Head, Home Economics Department, Central College, Pella 50219
	Sister Veronica McAndrews, Head, Home Economics Department, Marycrest College, Davenport 52804
	Mrs. Maydine Roslyn, Head, Home Economics Department, Iowa Wesleyan College, Mt. Pleasant 56241
KANSAS	Dr. Doretta M. Hoffman, Dean, School of Home Economics, Justin Hall, Kansas State University, Manhattan 66502
	Mary Nell Bowman, Head, Home Economics Department, Kansas State College of Pittsburg, Pittsburg 66762
	Virginia M. Moxley, Interim Chairman, Department of Home Economics, Kansas State Teachers College, Emporia 66801
KENTUCKY	Dr. Marjorie Stewart, Acting Dean, School of Home Economics, University of Kentucky, Lexington 40506
	Dr. Alpha H. Jones, Head, Home Economics Department, Kentucky State College, Frankfort 40601
	Agnes Aspnes, Chairman, Department of Home Economics, Berea College, Berea 40403
	Dr. Roberta B. Hill, Head, Department of Home Eco- nomics, Eastern Kentucky University, Richmond 40475
	Dr. Betty Bailey, Head, Department of Home Economics, Morehead State University, Morehead 40351
	Dr. Alice Koenecke, Head, Department of Home Eco- nomics, Murray State University, Murray 42071
	Dr. Frances Goldsmith, Head, Department of Home Eco- nomics, University of Louisville, Louisville 40208

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
KENTUCKY (continued)	Dr. William A. Floyd, Head, Department of Home Economics and Family Living, Western Kentucky University, Bowling Green 42101
LOUISIANA	Dr. Alma Beth Clark, Director, School of Home Economics, Louisiana State University, University Station, Baton Rouge 70803
	Dr. Heather Kelly, Director, School of Home Economics, University of Southwestern Louisiana, P. O. Box 1091, USL Station, Lafayette 70501
	Dr. Agnes Miller, Dean, School of Home Economics, Louisiana Tech University, Box 6248 Tech Station, Ruston 71720
	Dr. Marie Dunn, Head, Home Economics Department, Northwestern State University, Natchitoches 71457
	Dr. Geraldine Hastings, Head, Home Economics Department, Grambling College, Box 227, Grambling 71245
	Mrs. Zona Dale Taylor, Acting Head, Home Economics Department, McNeese State University, 217 W. Prien Lake Road, Lake Charles 70601
	Dr. Ann Knapp, Head, Department of Home Economics, Northeast Louisiana University, Monroe 71201
	Virginia L. Lanston, Head, Department of Home Economics, Southeastern Louisiana University, Box 863, University Station, Hammond 70401
	Dr. Margaret Jolley, Head, Home Economics Department, Nicholls State University, Box 2014, University Station, Thibodaux 70301
MAINE	Dr. Margaret E. Thornbury, Head, School of Human Development, University of Maine, Merrill Hall, Orono 04473

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
MAINE (continued)	Dr. Carlene Hillman, Head, Home Economics Department, Farmington State College, Farmington 04938
MARYLAND	Dr. Marjory Brooks, Dean, College of Home Economics, University of Maryland, College Park 20742 Mrs. Joanne Barksdale, Chairman, Department of Home Economics, Hood College, Frederick 21702 Mrs. Norma Maiden, Chairman, Department of Home Economics, Morgan State College, Hillen Road and Cold Spring Avenue, Baltimore 21212 Eretheia Evans, Assistant Professor, Home Economics Department, University of Maryland Eastern Shore, Princess Anne 21853 Sister Madeleine Wheeler, Chairman, Department of Home Economics, St. Joseph's College, Emmitsburg 21727
MASSACHUSETTS	Dr. Constance B. Jordan, Head, Home Economics Division, State College at Framingham, Framingham 01701 Dr. Helen C. Vaznaian, Dean, School of Home Economics, Skinner Hall, University of Massachusetts, Amherst 01003 Mrs. Eleanor Gawne, Acting Head, School of Home Eco- nomics, Simmons College, 300 The Fenway, Boston 02115 Mrs. Sharlene Tessler, Head, Home Economics Depart- ment, Atlantic Union College, South Lancaster 01561
MICHIGAN	Mrs. Jean Mowat, Chairman, Home Economics Department, Adrian College, Adrian 49221 Betty Youngman, Acting Chairman, Home Economics Department, Albion College, Albion 49224

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
MICHIGAN (continued)	Dr. Harry Busselem, Chairman, Home Economics Department, Central Michigan University, Mt. Pleasant 48858
	Mrs. Anita Fielder, Head, Home Economics Department, Eastern Michigan University, Ypsilanti 48197
	Sister Mary Bridget, Chairman, Home Economics Department, Madonna College, Livonia 48150
	Sister Mary Celeste Schneider, Chairman, Department of Home Economics, Mercy College, 8200 West Outer Drive, Detroit 48219
	Dr. Lois Lund, Dean, College of Human Ecology, Michigan State University, East Lansing 48823
	Dr. Jane Bemis, Head, Home Economics Department, Northern Michigan University, Marquette 49855
	Mrs. Bette LaChapelle, Acting Chairman, Division of Vocational Arts Education, Family Life Education Department, Wayne State University, Detroit 48202
	Dr. Frances Parker, Head, Home Economics Department, Western Michigan University, Kalamazoo 49001
	Sister Frances Gabrielle Hess, Head, Home Economics Department, Marygrove College, Detroit 48221
	Dr. Alice G. Marsh, Head, Home Economics Department, Andrews University, Berrien Springs

MINNESOTA	Dr. Keith McFarland, Dean, College of Home Economics, University of Minnesota, St. Paul 55101
	Mrs. Eleanor Collins, Assistant Professor and Head, Department of Home Economics, University of Minnesota-Duluth, Duluth 55812

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
MINNESOTA (continued)	Dr. Donald Mayleben, Program Leader in Home Economics, Home Economics Department, Mankato State College, Mankato 56001
	Sister Mary Catherine Stensrud, Chairman, Department of Home Economics, College of St. Catherine, St. Paul 55116
	Sister Johnetta Maher, O.S.B., Chairman, Department of Home Economics, College of St. Scholastica, Duluth 55811
	Mrs. Alice Polikowsky, Chairman, Department of Home Economics, Concordia College, Moorhead 56560
	Mrs. Elizabeth Umphrey, Chairman, Department of Home Economics, St. Olaf College, Northfield 55057
	Jack L. DeVine, O.S.B., Chairman, Home Economics Department, College of St. Benedict, St. Joseph 56374
	Sister Michaela Byron, Chairman, Home Economics Department, College of St. Teresa, Winona 55987
MISSISSIPPI	Dr. Sarah L. Weaver, Dean, School of Home Economics, University of Southern Mississippi, Box 35 Southern Station, Hattiesburg 39401
	Allene McCormick, Head, Department of Home Economics, Delta State College, Cleveland 38732
	Dr. Louise Burnette, Chairman, Department of Home Economics, University of Mississippi, Box 418, University 38677
	Mrs. Linelle N. Grier, Director, Home Economics, Alcorn A & M College, Alcorn Rural Station, Lorman 39006
	Dr. Marjorie Savage, Head, Home Economics Department, Mississippi State College for Women, Columbus 39701

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
MISSISSIPPI (continued)	Dr. Jean K. Snyder, Head, Home Economics Department, Mississippi State University, State College, Mississippi 39762
MISSOURI	Dr. Margaret W. Mangel, Director, School of Home Economics, University of Missouri, Columbia 65202 Margaret Briggs, Chairman, Home Economics Department, Northwest Missouri State College, Maryville 64468 Mrs. Lyn Hausmann, Chairman, Home Economics Depart- ment, Central Missouri State College, Warrensburg 64093 Mrs. Dorothy Pearson, Chairman, Home Economics Department, Northeast Missouri State College, Kirksville 63501 Mrs. Grace Hoover, Chairman, Home Economics Department, Southeast Missouri State College, Cape Girardeau 63701 Dr. Lorine F. Knight, Head, Home Economics Department, Lincoln University, Jefferson City 65101 Mrs. Jacquelyn Ledbetter, Chairman (Acting), Home Economics Department, Southwest Missouri State College, Springfield 65802
MONTANA	Dr. Marjorie B. Keiser, Director, School of Home Economics, Herrick Hall, Montana State University, Bozeman 59715 Mrs. Sara Cole Steensland, Chairman, Department of Home Economics, University of Montana, Missoula 59801
NEBRASKA	Dr. Hazel Anthony, Dean, College of Home Economics, University of Nebraska, Lincoln 68508

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
NEBRASKA (continued)	Mrs. Wilma Larsen, Chairman, Home Economics Department, Kearney State College, Kearney 68847
	Priscilla Mays, Chairman, Home Economics Department, Chadron State College, Chadron 69337
	Mrs. Anne Dunn, Chairman, Home Economics Department, Union College, Lincoln 68506
	Dr. C. V. Siegner, Head, Practical Arts Division, Peru State College, Peru 68421
NEVADA	Dr. Patricia A. Tripple, Associate Dean, Sarah Hamilton Fleischmann School of Home Economics, University of Nevada, Reno 89507
NEW HAMPSHIRE	Dr. James Spangenberg, Chairman, Home Economics Department, Keene State College, Keene 03431
	Dr. Maynard Heckel, Associate Dean, College of Life Science and Agriculture, Taylor Hall, University of New Hampshire, Durham 03824
NEW JERSEY	Dr. Edna Sostman, Professor and Head, Undergraduate Program, Home Economics, Douglass College, Rutgers University, New Brunswick 08903
	Mrs. Marie Meyer, Head, Graduate Program, Home Economics, Douglass College, Rutgers University, New Brunswick 08903
	Dr. Katharine B. Hall, Chairman, Division of Home Economics, Montclair State College, Upper Montclair 07043
	Dr. Helen McConnell, Chairman, Home Economics Department, Glassboro State College, Glassboro 08028

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
NEW JERSEY (continued)	Sister Anita Richard Heilenday, Chairman, Department of Home Economics, College of St. Elizabeth, Convent Station 07961
NEW MEXICO	Dr. Evelyn Hollen, Head, Home Economics Department, New Mexico State University, University Park Branch, Box 470, Las Cruces 88001
	Dr. Ednell Snell, Chairman, Department of Home Economics, University of New Mexico, Albuquerque 87106
	Mrs. Vera Murphey, Head, Department of Home Economics, Eastern New Mexico University, Portales 88130
	Mrs. Elaine M. McDowell, Head, Department of Home Economics, New Mexico Highlands University, Las Vegas 87701
	Mrs. Angie Hanson, Head, Department of Home Economics, Western New Mexico University, Silver City 88061
NEW YORK	Dr. David Knapp, Dean, College of Human Ecology, Martha Van Rensselaer Hall, North Wing, Ithaca 14850
	Dr. Hazel M. Kory, Deputy Chairman, Home Economics Area, Brooklyn College, Bedford Avenue, Brooklyn 11210
	Dr. Norma Newmark, Chairman, Home Economics Education and Family and Consumer Studies, Herbert H. Lehman College, Bedford Park Blvd. W., Bronx 10468
	Dr. Rose Mirenda, Chairman, Home Economics Department, Hunter College, 695 Park Avenue, New York 10021
	Mrs. Renee G. Paolantonio, Chairman, Department of Home Economics, Marymount College, Tarrytown 10591
	Margaret Simko, Chairman, Department of Home Economics, New York University, 32 Washington Place, Press 65, New York 10003

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
NEW YORK (continued)	Margaret A. Gram, Chairman, Home Economics Department, Queens College, 65-30 Kissena Boulevard, Flushing 11367 Dr. Theresa R. Humphreyville, Director, Home Economics Division, State University College at Buffalo, 1300 Elmwood Ave., Buffalo 14222 Dr. Julia Kilpatrick, Dean, Home Economics Division, State University College at Oneonta, Oneonta 13820 Dr. Jo S. Pahopin, Director and Associate Dean, Home Economics Division, State University College at Plattsburgh, Plattsburgh 12901 Dr. Bernice M. Wright, Dean, College of Home Economics, Syracuse University, Syracuse 13210
NORTH CAROLINA	Dr. Naomi Albanese, Dean, School of Home Economics, University of North Carolina at Greensboro, Greensboro 27412 Dr. Miriam B. Moore, Dean, School of Home Economics, East Carolina University, Greenville 27834 Dr. Jean Cooper Carsons, Chairman, Home Economics Department, North Carolina Central University, Durham 27707 Mary B. Allgood, Chairman, Home Economics Department, Appalachian State University, Boone 28607 Mrs. Berenice Johnson, Acting Chairman, Home Economics Department, Agricultural and Technical University, Greensboro 27411 Mrs. Louise G. Streat, Coordinator, Home Economics, Bennett College, Greensboro 27420 Mrs. Leonore D. Tuck, Chairman, Home Economics Department, Campbell College, Buie's Creek 27506

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
NORTH CAROLINA (continued)	Winona Bierbaum, Chairman, Department of Home Economics, Mars Hill College, Mars Hill 28754 Mrs. Marilyn Stuber, Acting Chairman, Department of Home Economics, Meredith College, Raleigh 27602 Mrs. Annie W. Elam, Chairman, Department of Home Economics, Pembroke State University, Pembroke 28372 Dr. Anne Buntin, Head, Home Economics Department, Western Carolina State University, Cullowhee 28723
NORTH DAKOTA	Mrs. Kathryn Burgum, Acting Dean, College of Home Economics, North Dakota State University, State University Station, Fargo 58102 Dr. Constance McKenna, Head, Home Economics Department, University of North Dakota, Grand Forks 58201
OHIO	Mrs. Maurine McCormick, Acting Director, School of Home Economics, Campbell Hall, Ohio State University, Columbus 43210 Dr. Beulah Sellers Davis, Director, School of Home Economics, Ohio University, Athens 45701 Dr. Georgia Halstead, Chairman, Department of Home Economics, Bowling Green State University, Bowling Green 43402 Dr. Jane Rees, Head, Department of Home Economics, Miami University, Oxford 45056 Dr. Theodore Irmiter, Dean, Home Economics, Kent State University, Kent 44240 Dr. Jane Bogniard, Head, Department of Home Economics, Ashland College, Ashland 44805

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
OHIO (continued)	Dr. Betty Smythe, Chairman, Department of Home Economics, Ohio Wesleyan University, Delaware 43015
	Margaret McEniry, Head, Teacher Education, Division of Vocational Education and Home Economics, University of Cincinnati, Department of Education, Teachers College, Cincinnati 45221
	Mrs. Betty Payne, Chairman, Department of Home Economics, University of Dayton, Dayton 45409
	Dr. Joyce Sullivan, Head, Home Economics, University of Akron, Akron 44304
	Dr. Ila Jean Feldmiller, Head, Home Economics Department, Youngstown State University, Youngstown 40503
	Sister Camilla Smith, Head, Home Economics Department, Ohio Dominican College, Columbus 43219
OKLAHOMA	Dr. Gladys Ford, Head, Home Economics Department, Central State University, Edmond, Oklahoma 73034
	Dr. Lela O'Toole, Dean, Division of Home Economics, Oklahoma State University, Stillwater 74074
	Mary A. Warren, Chairman, School of Home Economics, University of Oklahoma, Norman 73069
	Dr. Bonnie Bell Buchanan, Chairman, Home Economics Department, Oklahoma College of Liberal Arts, Chickasha 73018
	Mrs. Zella J. Patterson, Chairman, Department of Home Economics, Langston University, Langston 73050
OREGON	Dr. Betty Hawthorne, Dean, School of Home Economics, Oregon State University, Corvallis 97331

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
PENNSYLVANIA	Dr. Donald Ford, Dean, College of Human Development, Pennsylvania State University, University Park 16802
	Dr. Lilla Halchin, Director, Home Economics Department, State College, Mansfield 16933
	Dr. Kathleen B. Jones, Dean, School of Home Economics, Indiana University of Pennsylvania, Indiana 15701
	Dorcas Carter, Acting Director, Home Economics Department, State College, Cheyney 19319
	Dr. Nancy Kearney, Head, Department of Home Economics, Albright College, Reading 19604
	Dr. Gladys B. Spencer, Head, Department of Resource Management, Carnegie-Mellon University, Schenley Park, Pittsburgh 15213
	Sister Marion Joseph RSM, Chairman, Department of Home Economics, College Misericordia, Dallas 18612
	Gertrude L. Butler, Chairman, Department of Home Economics, Juniata College, Huntingdon 16652
	Marjorie E. Rankin, Dean, College of Home Economics, Drexel Institute of Technology, 32nd and Chestnut St., Philadelphia 19104
	Sister Maria Josefa, Head, Department of Home Economics, Immaculata College, Immaculata 19345
	M. Suzanne Sontag, Acting Chairperson, Division of Home Economics, Mercyhurst College, Erie 16501
	Attention, Chairman, Department of Home Economics, Marywood College, Scranton 18509
	Sister Mary Yvo, Head, Department of Home Economics, Villa Maria College, 2551 W. Lake Road, Erie 16505

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
PENNSYLVANIA (continued)	Mrs. Mary G. Eshelman, Head, Department of Home Economics, Messiah College, Grantham 17027
	Sister Rose Angela, Chairman, Department of Home Economics, Seton Hill College, Greensburg 15601
RHODE ISLAND	Dr. Beverly D. Cusack, Dean, College of Home Economics, Quinn Hall, University of Rhode Island, Kingston 02881
SOUTH CAROLINA	Dr. Ruth Hovermale, Chairman, Department of Home Economics, Winthrop College, Rock Hill 29733
	Dr. Annabelle Sherman, Dean, School of Home Economics, State College, Orangeburg 29115
	Mary McDill, Head, Home Economics Department, Erskine College, Due West 29639
	Mrs. Ann Warner, Chairman, Department of Home Economics, Lander College, Greenwood 29646
SOUTH DAKOTA	Dr. Frances M. Hettler, Dean, College of Home Economics, South Dakota State University, College Station, Brookings 57006
TENNESSEE	Dr. Lura Mae Odland, Dean, College of Home Economics, University of Tennessee, Knoxville 37916
	Mrs. Mattye C. Flowers, Head, Department of Home Economics, Tennessee State University, Nashville 37203
	Dr. Estella Pomroy, Head, Department of Home Economics, Middle Tennessee State University, Murfreesboro 37130
	Mary Below, Dean, Division of Home Economics, Tennessee Technological University, Cookeville 38501

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
TENNESSEE (continued)	Mary Rachel Armstrong, Head, Department of Home Economics, University of Tennessee, Martin 38237 Dr. Marquita Irland, Professor and Chairman, Department of Home Economics, 304 Manning Hall, Memphis State University, Memphis 38111 Dr. Margaret Carter, Head, Home Economics Department, David Lipscomb College, Nashville 37203 Dr. Thelma Cushman, Head, Home Economics Department, Southern Missionary College, Collegedale 37315 Dr. Vivian R. Rockwood, Head, Home Economics Department, East Tennessee State University, Johnston City 37601
TEXAS	Dr. Mary Ellen Durrett, Acting Chairman, Home Economics Department, The University of Texas at Austin, Austin 78712 Dr. Betty Alford, Dean, College of Household Arts and Sciences, Texas Woman's University, Denton 76204 Dr. Donald L. Longworth, Interim Dean, College of Home Economics, Texas Tech University, Lubbock 79409 Dr. Mary Evans, Acting Dean, School of Home Economics, North Texas State University, Denton 76203 Dr. Allena K. Pace, Head, Department of Home Economics, Sam Houston State University, Huntsville 77341 Dr. Wreathy Aiken, Chairman, Home Economics, Texas A & I University, Kingsville 78363 Dr. May Wanda Harp, Head, Home Economics Department, Southwest Texas State University, San Marcos 78666 Dr. Gloria Durr, Head, Home Economics Department, Stephen F. Austin State University, Nacogdoches 75962

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
TEXAS (continued)	Dr. Wathena Temple, Head, Home Economics Department, East Texas State University, Commerce 75429
	Dr. Janie W. Cotton, Chairman, Home Economics Department, Texas Southern University, Houston 77004
	Dr. Marie Wilmeth, Head, Home Economics Department, Abilene Christian College, Abilene 79601
	Mrs. Lynn T. Miller, Chairman, Department of Home Economics, Baylor University, Waco 76703
	Sister John Magdalen Young, Ph.D., Chairman, Department of Home Economics, Incarnate Word College, San Antonio 78209
	Mrs. Judy Lusk, Chairman, Department of Home Economics, Mary Hardin-Baylor College, Belton 76514
	Dr. Nell Robinson, Chairman, Department of Home Economics, Texas Christian University, Forth Worth 76129
	Dr. Joy Bell Ross, Head, Department of Home Economics, Texas College, Tyler 75703
	Dr. Ruth L. Barrett, Chairman, Department of Home Economics, University of Houston, Houston 77004
	Dr. Dorothy W. McAlister, Head, Department of Home Economics, LaMar University, Beaumont 77704
	Dr. Flossie Marian Byrd, Dean, School of Home Economics, Prairie View A. and M. College, Prairie View 77445
UTAH	Mrs. Maurene Hegsted, Head, Department of Home Economics, University of Utah, Salt Lake City 84112
	Dr. Phyllis Snow, Dean, College of Family Life, Utah State University, Logan 84321

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
UTAH (continued)	Dr. Elaine Porter, Dean, College of Family Living, Brigham Young University, Provo 84601
VERMONT	Dr. Signe Betsinger, Chairman, Department of Home Economics, Terrill Hall, University of Vermont, Burlington 05401
VIRGINIA	Dr. Dorothy Rowe, Head, Home Economics Department, Madison College, Harrisonburg 22802 Mrs. Nell H. Griffin, Chairman, Home Economics Department, Longwood College, Farmville 23901 Dr. Marilyn Sampley, Head, Home Economics Department, Radford College, Radford 24141 Dr. Mildred N. Jordan, Director, School of Home Economics, Virginia State College, Petersburg 23803 Dr. Laura J. Harper, Dean, College of Home Economics, Virginia Polytechnic Institute, Blacksburg 24061 Anna Mae Myers, Head, Department of Home Economics, Bridgewater College, Bridgewater 22812 Mary Ethel Heatwole, Acting Head, Department of Home Economics, Eastern Mennonite College, Harrisonburg 22801 Dr. Juanita F. Strawn, Director, Division of Home Economics, Hampton Institute, Hampton 23368
WASHINGTON	Dr. Mary Louise Johnson, Director, School of Home Economics, 203 Raitt Hall, University of Washington, Seattle 98105 Dr. Jane Werden, Dean, College of Home Economics, Washington State University, Pullman 99163

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
WASHINGTON (continued)	Dr. Luther Baker, Chairman, Department of Home Economics, Central Washington State College, Ellensburg 98926
	Dr. Dorothy Ramsland, Chairman, Home Economics Department, Western Washington State College, Bellingham 98225
	Dr. Dorothy Boyd Kreider, Head, Home Economics Department, Seattle Pacific College, Seattle 98119
WEST VIRGINIA	Dr. John Shultz, Director, Division of Family Resources, College of Human Resources and Development, 702 Forestry Towers Addition, West Virginia University, Morgantown 26506
	Dr. Grace Bennett, Chairman, Home Economics Department, Marshall University, Huntington 25701
	Mildred Dransfield, Chairman, Home Economics Department, Concord College, Athens 24712
	Mrs. Lillian Chaddock, Chairman, Home Economics Department, Glenville State College, Glenville 26351
	Mrs. Wilma Carroll, Head, Home Economics Department, West Virginia State College, Institute 25112
	Mrs. Hazel Hendricks, Chairman, Home Economics Department, Shepherd College, Shepherdstown 25443
WISCONSIN	Dr. Agnes A. Jones, Assistant Dean, School of Home Economics, University of Wisconsin-Stevens Point, Stevens Point 54481
	Dr. J. Anthony Samenfink, Dean, School of Home Economics, University of Wisconsin-Stout, Menomonie 54751

Table 29.--Continued

STATE	NAME AND ADDRESS OF POPULATION
WISCONSIN (continued)	Attention Acting Dean, College of Agriculture and Life Sciences, and Director, School of Family Resources and Consumer Sciences, University of Wisconsin, Madison 53706
	Sister Agnes Marie Nash, Head, Home Economics Department, Viterbo College, La Crosse 54601
	Sister M. Claudine Heintz, Chairman, Home Economics Department, Cardinal Stritch College, Milwaukee 53217
	Sister M. Virginette Schuster, Chairman, Home Economics Department, Holy Family College, Manitowoc 54220
	Sister M. Willann Mertens, Chairman, Home Economics Department, Mount Mary College, Milwaukee 53222
WYOMING	Dr. Martha Polton, Head, Division of Home Economics, University of Wyoming, University Station, Box 3354, Laramie 82070

Table 30.--Code Book (December 14, 1973)

Cell	Question	Code
1	Identification: State	1 through 51
3	Identification: Respondent	1 Minimum through 22
5	Returned useable	1
	Returned not useable	2
	not returned	3
6	I have been an active professional home economist for approximately	
	1-5 years	1
	5-10 years	2
	10-20 years	3
	20-30 years	4
	30-45 years	5
	not a home economist	6
7	I have been an administrator	
	1-5 years	1
	5-10 years	2
	10-20 years	3
	20-30 years	4
	30-35 years	5
	emeritus	6
8	The highest degree earned	
	B.S.	1
	M.S.	2
	M.S. & added studies	3
	M.A.	4
	M.S. & added studies	5
	M. Ed.	6
	Ph.D.	7
	Ed.D. or Ed.S.	8
	Other	9
	Other: P.D. = Professional diploma	
	M.A. now a ABD	
	M.S. "Ph.D. achievement"	
	I hold 2 M.A.'s	
	M.S. and Adm. Dietetic Internship	

Table 30.--Continued

Cell	Question	Code
9	The major subject areas I concentrate my academic work in are as follows:	
	Home Ec Ed, Teach Ed,	1
	Voc. Ed, Curr +Methods.	
	FN,Nut.Ed,Foods Sc,	2
	+ Biochem or Chem	
	Home Manag, Fam Ec	3
	House Equip.	
	CDFR,HumDevel, Marr&	4
	Fam,FamilyLifeEd,Fam.Soc.	
	Textiles and Cloth	5
	Combinations: Two or more Social Sc Subjects that includes at least one Home Ec Subject	
#4	Combinations: Contd.	6
	Examples of combinations:	
	Family and Guidance; HoEcEd+CDFR;	
	Home Ec, Ed +TC+Rel.Arts; Habitational	
	Resources;Ed,Hous,+Manag; Hous & Women's	
	Roles; Hous +CDFR; Tex+HighEdAdmin;	
	Cloth,Cost Des, ConsManag+HoEcEd;	
	Fam Ec+CDFR; Hous,HoEquip,+Guid&Counsel;	
	CT,Hous,&Rel Arts; Hous Equip+Hous+Manag;	
	HoEcEd+CD+EdPsych and Meas; Ed,Systems,	
	ConsEd,Manag; Tc +Manag.; HoEcEd,ConsEd +	
	Clothing.	
	(Each listing between semi-colons is one person)	
	Two or more Physical Sc with at least one HoEc Subj Matter:	7
	Examples: Nutrition + Biochem.	
	One Soc.Sc + one Phys Sc and at least one is a HoEc Sub Matter:	8
	Examples: FN +HoEcEd; FN+Cons Ec;	
	Nut + HomeManag; Foods +Hous Ec &Manag;	
	Child Nutr +Human Physiology +Soc./Anthro.	
	Subject Matter not considered HoEc	9
	Examples: Ed Psych +Anthro/Soc;	
	Political Sc + Public Policy.	

Table 30.--Continued

Cell	Question	Code
10	The total undergraduate majors enrolled in the College etc.	
	Under 250	1
	Under 500	2
	Under 900	3
	Under 1200	4
	Under 2000	5
	Under 3000	6
	Under 4500	7
11	Total graduate majors enrolled:	
	Under 25	1
	Under 50	2
	Under 100	3
	Under 150	4
	Under 225	5
	Grad Courses Only Offered	6
	No Grad Program	7
	Under 280	8
12	Type of Institution of Higher Education:	
	Land Grant	1
	State College or U	2
	Private Institution	3
	State College or U and Land Grant	4
	City University	5
13-14	The Ad's Unit Full Time Fac.	
	1-5	1
	6-10	2
	11-15	3
	16-20	4
	21-25	5
	26-30	6
	31-35	7
	36-40	8
	41-50	9
	51-60	10
	61-70	11
	71-80	12

Table 30.--Continued

Cell	Question	Code
13-14 (continued)	100-150 151-200	13 14
15	Dept. of Home Ec; Ho Ec Dept. Division of Ho Ec; School of Ho Ec; College of Ho Ec	1
	Home Ec Appears in the title: Dept of Ho Ec & Industrial Tech; Ho Ec, Family Life & Consum Ed	2
	Family Oriented & Family Appears in the Title: College of Fam. Life; Division of Family Resources; School of Fam. Resources and Consumer Sc; Family Life Ed; Dept. of Fam Life; Home and Community Serv. Dept.	3
	Human Ecology appears in the Title: Dept. of Hum Ecology; College of Human Ec.	4
	Human Develop or Human Resources appears in the title: Human Resource Develop; College of Hum Develop.	5
	Consumer stressed in title: Consum Related Science; Consumer Ec Dept.	6
	Foods and Nutrition stressed in title: Department of FN and Ho Ec	7
	College of Nutrition, Textiles and Human Development	8
	Habitational Resources	9

Table 30.--Continued

Cell	Question	Code
16	The Present Title was Made Official	
	1900-1909	1
	1910-1919	2
	1920-1929	3
	1930-1939	4
	1940-1949	5
	1950-1959	6
	1960-1964	7
	1965-1969	8
	1970-1973	9
T7	If no title change, any plans for change:	
	no answer	0
	yes	1
	no	2
T8	Briefly Describe: Quest. T1	
	Request for Name change; change in process; Tentative title chosen but not passed.	1
	Change considered but rejected.	2
	Investigating that possibility.	3
	Change name official & then changed back.	4
T9	Qu. T2: Admin's structure reorganized?	
	No answer	0
	yes	1
	no	2

Table 30.--Continued

Cell	Question	Code
20-21	Qu. 12: Briefly Describe	
	No change	0
	Change in process	1
	Too New in position to answer well, emeritus, only an acting head	2
	I. Superficial Change: Addition to existing structure, same philosophy, new roles added to existing organization.	
	"U" structure change but no internal reorganization: From part of Ag to a separate school; Was in Nat. Sc. Div.--now in applied arts; Now in Soc. Behav. Sc. Dive; Fac of Ed reorganized so now in a new Div in Fac of Ed.	3
	"U" title change but no reorganization: From a Div. to a Dept.; Div. to a School; School to a College	4
	Within Unit Re-grouping of Div or Dept. by Sub. Matter or Career but not reorganization based on change of philosophy = a Physical regrouping.	5
	Status or title change for administrator	6
	Role of administrator changed--diffusion of admin. duties, assigned more Fac. responsibility.	7
	More student-Fac participation has changed organization of decision processes.	8
	Administration now interdisciplinary	9

Table 30.--Continued

Cell	Question	Code
20-21	Qu. #12 Briefly Describe (continued)	
	Some change but no reorganization (no details given)	10
	Administrative hierarchy changed: Roles defined for each from Chairman and duties are diffused but no major reorganization.	11
	II. Reorganization Changes: Philosophical and/or conceptual changes that are mani- fest in reorganization of the adminis- tration.	12
22	Q. #13: Curriculum Reorganization?	
	No answer	0
	yes	1
	no	2
23-24	Q. #13: Briefly Describe	
	No change or no change indicated	0
	Reorganization in process	1
	Reorganization has already taken place (no explanation offered)	2
	Emeritus, don't know, too new to know.	3
	I. Superficial change: Addition to existing structure, revision but same philosophy, some new roles added to existing organi- zation.	
	Added graduate work (courses and/or programs)	4
	Added a degree (AA B or Inter- disciplinary)	5

Table 30.--Continued

Cell	Question	Code
23-24	Q. #13: Briefly Describe (continued)	
	Added new major or specialities to program (career options, grouped areas of study, interdisc. major)	6
	Added majors and changed core requirements.	7
	Added new majors (programs) and new course (meant that some courses dropped, programs integrated or dropped)	8
	Added multiprofessional or multi-discipline programs; broadly defined programs; integrated programs with other faculties.	9
	Now have core courses	10
	Added core courses to present core	11
	Deleted core course	12
	Core more flexible (more choice)	13
	Core taught in different way (teams, new methods used)	14
	Added courses (options expanded, broader variety of courses)	15
	Titles of courses and program changed	16
	On going revisions but no major reorganization (constantly updating, changes but not reorgn, content updated)	17

Table 30.--Continued

Cell	Question	Code
23-24	Q. #13: Briefly Describe (continued)	
	Curr. organized so some basic root courses are now taught in another department	18
	Experimental Coordinated Undergrad Dietetic program added	19
	II. Reorganization (structural change) of curriculum: changes in philosophical and conceptual changes manifest in curriculum	
	Program change: New emphasis, changed from emphasis on skills to philosophy and understanding.	20
	Restructured program because of outside pressures: State recommendation, Am. Dietetic Ass, State Ed Certification Requirements.	21
	Restructuring because of "U" pressures and/or "U" wide restructuring of Curr.	22
	Restructuring initiated by faculty or administration of HoEc/Human Ec unit & change is new philosophy such as Ho Ec in Comm Context and and emphasis on modification of environment.	23
	Interpretation of answer fuzzy: Example: "Continuous"	24

Table 30.--Continued

Cell	Question	Code
25	Page 8: Question 1 The Family is Central Focus	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
26-27	Comments: -----	
	Did not answer	0
	Statement is incomplete without "Individual"	1
	Statement is incomplete without environ.	2
	Statement is incomplete without near environment	3
	Statement is incomplete without individual in relation to <u>his</u> environment	4
	Confirms agreement with statement	5
	Statement needs to read "should be" (many only give lip service)	6
	Disagreement confirmed: No implies too narrow or restrictive (&) limits field's expression.	7
	"Undoubtedly 'family' needs a better definition than that generally understood by home economists in the past."	8
28	Question 2: Central focus=0 as Fam. -----	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5

Table 30.--Continued

Cell	Question	Code
29-30	Question 2: Comments	
	Did not answer	0
	Should include both near and distal envir.: "but not just in the context of the near environ." "distant envir. is important" "reservation: near envir is too imprecise to make me happy" "in the <u>total</u> envir."	1
	Individual needs to be included: "and individual" "partly the organism as an individual" "and emphasis on the family's contribution to individual growth & devel" "meaning of 0 as Fam. is not too clear. I view central focus as individual in his several roles with environ. interaction implicit."	2
	What is the meaning of ESF context?: "are you trying to say that 0 as Fam. plus near envir is different than family? You use envir. in your def. of family."	3
	Context overemphasized: "often the context is overemphasized."	4
	What is and what should be are two diff. things: "home economist are not in agreement." "This is the situation but should not be."	5
	"I believe No. 2 does not contradict No. 1"	6
	"Prefer statement 2 to 1."	7

Table 30.--Continued

Cell	Question	Code
31	Question 3: Linear Framework	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
32-33	Question 3: Comments	
	Did not comment	0
	Probably no one has thought about: "Perhaps too many haven't even thought about it." "Doubt that evolution of framework has been central in thought." "If they have thought about it at all." "I am not aware of large numbers who do."	1
	Most have seen linear Framework as the Professions framework: "most have" "Where they have thought seriously about a framework at all." "Original idea at Lake Placid. New Dire. in 1959." "Have seen it as the framework." "Many have seen it as <u>the</u> framework."	2
	The Linear Framework is an Adequate framework for the field:	3
	The profession has gone beyond the "first stage" of its framework. "However professionals have long pro- gressed from that stage, esp. since Creekmore's publication and the McGrath Report."	4

Table 30.--Continued

Cell	Question	Code
32-33	Question 3: Comments (continued)	
	I don't know	5
	"I do not feel I can answer as many viewpoints on this."	
	"Have collected no data on this."	
	"Don't really know."	
	"Depends on which professionals we mean."	6
	"Generalization"	7
34	Question 4: Process Framework	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
35-36	Question 4: Comments	
	Did not comment	0
	Agree with the idea as presented:	1
	"As you present the idea."	
	"Pursue this! Do!"	
	"Hasn't it always been this!"	
	Idea is incomplete	2
	"but it is incomplete"	
	"I have a different concept here than your picture."	
	"Depends on philosophical viewpoint"	3
	"Have you really established your thesis that process framework is differentiated from linear framework and can be separately defined?"	4

Table 30.--Continued

Cell	Question	Code
35-36	Question 4: Comments (continued)	
	"I don't think we are in a position to decide whether it is progress or not. 'change' is a helles word . . . one of the factors."	5
	"What profession?"	6
37	Question 5: Energy the missing Link?	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
38-39	Question 5: Comments	
	Did not comment	0
	Energy is an implied concept: "E is implied." "No, E exists tho not depicted." "To me, an interactive process system implies E." "May not be explicit." "It is there but may not have been identified as such." "assumed always."	1
	I agree E is a missing link: "I believe my concept of process could include this." "Progressive professionals have added the E."	2

Table 30.--Continued

Cell	Question	Code
38-39	Question 5: Comments (continued)	
	I do not agree that E is a missing link: "Could there be other factors as well? Is this too simple?" "There are other necessary assumptions." "Merely diagramming it in III does not suggest relationship is more dynamic than I and II. A matter of semantics."	3
	I do not understand the concept of E as interface: "I either don't understand or don't agree with your definition of E." "I do not understand the concept of E as an interface."	4
	There are other elements or dimensions missing: "Feedback is another." "Depends on priorities. Other elements may be missing at other times." "It is only one."	5
40	Question 6: ESF helps prof. state basic concepts.	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
41-42	Question 6: Comments	
	Did not comment	0
	ESF is too complex to use and/or comprehend: "Not readily interpreted by many numbers."	1

Table 30.--Continued

Cell	Question	Code
41-42	Question 6: Comments (continued)	
	"I'm not sure it is an easily comprehended form."	
	"However, it is unnecessarily complex."	
	"Too difficult to interpret."	
	"Seems confusing!"	
	"Difficult to grasp without comments and explanations."	
	"but it is extremely complex as a working tool."	
	ESF is <u>one</u> means or tool:	2
	"one means."	
	"only one means"	
	"may be"	
	"one"	
	"not necessarily, it may."	
	ESF is a means (as statement in question):	3
	"perhaps with full presentation, yes."	
	"How long we've needed this."	
	"I was sort of confused by your system altho I agree with the concept."	
	"Hopefully, to use current jargon."	
	"Your statement is leading"	4
	"Useable for those new to the profession"	5
	"As well as interrelates the concepts."	6
	"Again please, what profession are you talking about?"	7
	"The student assumes a clarity of definition and acceptance of implications that may not, in fact, exist. Is your definition any more rich in its implication than was the Lake Placid definition?"	8

Table 30.--Continued

Cell	Question	Code
43	Question 7: ESF a tool to refine dimensions of the profession?	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
44-45	Question 7: Comments	
	Did not comment	0
	One potential tool: "could be--but is?" "For those who require a new model and stimulating too." "one potential tool." "If one considers a conceptual framework a tool." "May be used as a tool." "could be" "If used with wisdom and understanding." "hopefully." "Yes, according to your statement on p. 6" "It may help" "We need something."	1
	ESF too complex to be useful: "most of the people in the profession cannot comprehend it." "Too complex to be useful."	2
	ESF and (plus) other Frameworks too: "but other frameworks should be emphasized." "However, other tools may be equally valid." "is or can be" "only one tool"	3
	"Tool is not included in your glossary"	4
	"Unity of effort is essential."	5

Table 30.--Continued

Cell	Question	Code
44-45	Question 7: Comments (continued)	
	"I need to know more about the system before I can formulate a response."	6
	"But agree primarily in the sense that it or any other defined strategy, tends to free introspection, definition of goals, evaluation of performance with respect to goals."	7
	"profession again--which one?"	8
	"very strongly"	9
46	Question 8: ESF a system to relate to other systems.	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
47-48	Question 8: Comments	
	Did not comment	0
	ESF is only one means: "only one means" "only one of the systems"	1
	"But regret concept of family as central focus"	2
	"This seems unclear."	3
	"Yes, but the related concepts is not new."	4
	"Implied but not explicate."	5

Table 30.--Continued

Cell	Question	Code
49	Question 9: ESF different from linear and process frameworks	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
50-51	Question 9: Comments	
	Did not comment	0
	ESF is not new:	1
	"Maybe more elaborate but not totally new."	
	"This is not new. Read the Lake Placid Conf."	
	"Different diagrammatically but?"	
	"New to whom? Other frameworks could have assumed relationships identified in ESF."	
	"Not necessarily new."	
	"I think only the picture is new."	
	"Not as much a new way as a more sophisticated way."	
	"different (not new)"	
	"more clear, not new."	
	"a new diagram/new terminology but is it a new conceptual framew?"	
	"I need to have a clear definition of a new way."	
	ESF is different from Stage I and II:	2
	"of course, it is different, it is far more complex."	
	"defines it more clearly."	
	"yes, as other two do not."	
	"I like the inferred 3rd Dimension."	3
	"relationship between Organism and what?"	4

Table 30.--Continued

Cell	Question	Code
50-51	Question 9: Comments (continued)	
	"so do the others but more limited."	5
	"The material in this document does not make the difference clear, is this clearly established elsewhere. Your definitions of I and II become crucial. The more restructuring or restructured perhaps the more likely your statement #9 could be answered in a positive sense."	6
	"But this is not a good statement."	7
52	Question 10: ESF a scientific tool	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
53-54	Question 10: Comments	
	Did not comment	0
	ESF not exact enough to be a scientific tool:	1
	"The ecosystem approach is not exact enough to be defined as a scientific tool."	
	"not necessarily."	
	"how scientific depends on use."	
	ESF is <u>one</u> scientific tool:	2
	"There are other scientific tools that might do the same."	
	"possibly"	
	"depends on definition of scientific. Scientific tool is not included in your glossary."	
	"possible with effort"	

Table 30.--Continued

Cell	Question	Code
53-54	Question 10: Comments (continued)	
	ESF is a scientific tool (as stated in questionnaire: "This tool is interesting and may help some who have not taken feedback and energy and interface into account." "It forces one to examine the parts and their relationships." "yes, will take time to establish the concept."	3
	ESF too complex as a scientific tool: "Too complex to be useful to many in the profession."	4
	"I really question whether the family can ever be viewed totally in a systematic, accurate, objective, manner."	5
	"The definition can be abstract or to be at best a starting point for break out of hypotheses. Could be it be that the differentiation between linear, process and ecology frameworks are more the product of the desire to justify utilizing the term Human Ecology than they are in fact highly differentiated approach an point of view? Please not (though you need no further evidence, I'm sure) that I do not speak from philosophical orientation, hence my responses may be less than helpful."	6
55	Question 11: ESF relationship to other disciplines.	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5

Table 30.--Continued

Cell	Question	Code
56-57	Question 11: Comments	
	Did not comment	0
	Possibly: "possibly" "probably so" "could be" "one way"	1
	"This is mandatory"	2
	"Reference to Creekmore and others will aid in its understanding."	3
	"Other disciplines and professions may have similar relationships."	4
58	Question 12: Or as Fam=Better Serve all families	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
59-60	Question 12: Comments	
	No comments	0
	ESF needs to include individual: "and individuals" "how about individuals?" "But increasing number of persons live alone and not with others."	1
	"but so do other approaches."	2
	"possibly but I reject family as central focus."	3
	"again family as individual or multiple"	4

Table 30.--Continued

Cell	Question	Code
59-60	Question 12: Comments (continued)	
	"--pictured relationship of organization of concepts."	5
	"yes, it is inclusive of the concept of culture."	6
	"could be;" "not necessary so-could be":	7
	"the central theme of home ec from the beginning."	8
	"Do you mean that it was the profess's concern for serving families that caused them to use the term organism as family?"	9
	"The profession segregates itself from other professional areas and tries to take a 'god-like' stand."	10
61	Question 13: ESF organizes concepts of profession.	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
62-63	Question 13: Comments	
	Did not comment	0
	Partially:	1
	"partially"	
	"represents one framework"	
	"one organization"	
	"some of the concepts."	

Table 30.--Continued

Cell	Question	Code
62-63	Question 13: Comments (continued)	
	"not at present in many places."	2
	"I must include Human Development--all individuals and families."	3
	"How about job training?"	4
	"A new way simply in the use of different terminology."	5
	"provided you first define the paramiters of your ESF."	6
	"Though, again the definition as used is not sufficiently clear as to permit the casual reader or the non-philosophical student to use the concept with assurance, or do you disagree?"	7
	"The profession needs to change emphasis and direction and I doubt name change will do it."	8
64	Question 14: ESF tool to quantify	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
65-66	Question 14: Comments	
	Did not comment	0
	Probably: "probably" "if more fully refined"	1
	"I have no evidence of this."	2

Table 30.--Continued

Cell	Question	Code
65-66	Question 14: Comments (continued)	
	"Consider this to be difficult"	3
	"Has this been proven"	4
	"I see the framework as making visual interaction rather than quantifying them."	5
	"Provided you define your quantitative base to begin with."	6
	"Word 'define' difficult to interpret if used in context of helping to identify or place in perspective, I agree. Am not certain Ecol. approach will of and by itself be useful in developing measures."	7
67	Question 15: ESF help prof. define qualitative.	
	No answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5
68-69	Question 15: Comments	
	Did not comment	0
	Possibly: "perhaps" "possibly" "if more fully refined" "see this as more possible than previous statement."	1

Table 30.--Continued

Cell	Question	Code
68-69	Question 15: Comments (continued)	
	Not a feasible goal:	2
	"I know of no evidence"	
	"difficult and probably impossible"	
	"too general, may be dangerous."	
	"questionable"	
	"not necessarily, this is a separate concern."	
	"not necessarily. If don't start with moral and ethical values your qualitative ends will be difficult."	
	"not the only system however."	3
	"I would have to give this more thought."	4
	"meaning is not clear."	5
	"little increase expected above past methods. An excellent goal for its use."	6
	"With the broader definition of Organism of family."	7
	"aesthetic"	8
	"a different semantic interpretation."	9
70	Question 16: Goals of HoEc/HumEc	
	Did not answer	0
	U	1
	D	2
	SD	3
	A	4
	SA	5

Table 30.--Continued

Cell	Question	Code
71-72	Question 16: Comments	
	Did not comment	0
	A goal: "a goal" "should be"	1
	Meaning of "over time" unclear: "poorly stated (life overtime?)" "over time?" "Does time refer to length of life or time salvaged via efficiency?"	2
	Meaning unclear and/or imprecise: "What do we really mean by this?" "I disagree because your statement is inexact. If you were then to say as individual or family, then I will agree." "Family is too imprecise." "Realize a quality of life or to make their choice of what they want?" "Must define quality--cannot be universally applied." "who defines?"	3
	0 as individual is missing: "Family excludes individuals. An important aspect of society. In <u>no way</u> can family and individual <u>be</u> superimposed." "Also to help organism as individual realize a quality of life."	4
	"This is a little limited in scope. What happens to an organism who choose not to have a family? Can't such an organism realize a quality life outside the frame- work of a family?"	5

Table 30.--Continued

Cell	Question	Code
71-72	Question 16: Comments (continued)	
	"The central focus of Home Economics from beginning as conceived by Ellen H. Richards and others."	6
	"per your definition page 4"	7
73-74	Question 17: A compilation of comments by identification of state and respondent	
"Quotes"	COMMENT	CODE
	This sounds like a justification for the change in name at Michigan State from Home Economics to Human Ecology which limits the relevance of the study to the profession <u>per se</u> .	3.1
	I feel care should be exercised in interpreting the results of this questionnaire as the responses given as appropriate to the ecosystem concept may also be true to a greater or lesser degree of other conceptual approaches.	3.2
	I have marked space 1 (uncertain for several statements) because I would want to hear the statement discussed more fully before answering.	3.3
	We have become concerned with trying to define "family" in light of alternative life styles.	5.6
	I am uncertain (about question 15) because I perhaps do not see the relationship of this framework to moral or ethical values. If this matter could be clarified I might agree. I may have misunderstood the statement--if It (the framework) can be used as a tool to help people define values and that tool is in accord with the natural law--then I could agree. But if the framework is not sound or the people using it might have values contrary to the natural law and consequently misuse the framework, then I could not agree. I wish you much success in your research and will be anxious to have your results in 1975. I am sorry this material is so late but I just received the packet this morning--Oct. 20th--.	5.7

Table 30.--Continued

"Quotes"	COMMENT	CODE
I am committed to the systems approach to home economics and appreciate your attempts to develop the profession in this direction. Good luck!		5.10
Without opportunity to do research on systems theory, ecological theory etc. it is difficult to respond to some of these. The credibility of home economics as a field of study, as an applied field, and a field of intellectual pursuit is extremely vulnerable by the proclivity of Home Economists to consider family and individuals as one and the same. Sociologists do not define individuals as families, the law does not, psychology does not, anthropology does not. By what defense do we? To focus on family says "that is the only way to be." "Marriage and children are <u>the only acceptable life styles.</u> " How archaic! It is easy to see family and professions as organisms but deliver us from casting out individuals, single people, widows, orphaned children, etc.		5.12
I will be happy to see your results when you have compiled all the data.		13.1
Either I am as dense as a post or you are using terms which are still so unfamiliar they do not clarify the meaning of what you are asking. I found I constantly had to refer to your glossary and it confused me to no end. Good luck in your study.		13.2
I found this a very interesting presentation. Suggest you clarify <u>standard</u> , <u>level</u> , and <u>plane</u> of living as used in economics. Many good references available.		14.8
Due to a very busy schedule, my responses are "quick" without deliberation and study. They may have been different if tempered with more reflection and thinking.		15.2
Where are individuals identified in the framework? Does the system function only for groups of individuals existing as "families?" How does the framework identify individual who values and pursues a lifestyle as a "single?" Is Home Economics/Human Ecology meant to refer to one identifying title or is the slash meant to indicate the two terms are interchangeable?		15.3
The systems framework is difficult to interpret. Examples tying this to real life situations may help. I support		17.3

Table 30.--Continued

"Quotes	COMMENT	CODE

your philosophy that the family is an ecosystem affected by and affecting both the near and far environment with change in energy occurring. What I don't see in your framework is where home economics input enters the picture and how it affects the ecosystem.		
I'm sorry--I have over 100 readings to complete by next week. I do not have time to study this. I resent my time being used in such a way!		18.1
Ambitious idea! Good luck!		20.2
I find this whole language game both wearing and objectionable. It is unfortunate that the professional challenge of our field does not direct us into more functional application and realistic plans for action. I do not need new terminology to give prestige and worth to my professional approach. If Home Economics is facing an identity crisis--this ought to turn the trick.		23.4
Stage I and II are presented here much more simply than has been in effect with professionals in home economics. Dr. Ellen H. Richards, for instance, introduced modern professional home economics as an ecosystem.		23.12
The Ecological Systems Framework is a bit mind boggling and may be slow in effecting a bettering of the quality of life. Actually simpler terminology and definitions should be considered.		
I have made myself look stupid, indeed, when, in fact, Stage III fascinates me. I have spent an evening agreeing with its mechanics and geometric logic and a morning with three of my faculty members in study with me. The terminology is erudite but it adds little that is new to a professional concept regarding the role of home economics in the ecosystem. Perhaps this decision is from a home economist who has been forced in her teaching to add energy, information and communication to the Stage I and II levels. Without doubt a generation emerges that needs the stimulation of Stage III. As the accepted "family" has now taken many forms, graphics must be more inclusive. Perhaps, in turn moral and ethical values will become more pivotal and centralized.		
Obviously I am a strong supporter of systems approaches--probably your strongest among the group of deans, etc. Let me know if you need anything from me.		23.7

Table 30.--Continued

"Quotes"	COMMENT	CODE
I look forward with great anticipation to the 1975 report.		23.12
Please forgive a general tone of negativism in the above comments. I expect the level of abstraction implicit in the three categorizations used (linear, process, ecological) goes beyond the competence of the general administrator. I do not feel that your explication of the ecological systems approach is sufficiently extended to permit positive responses to the majority of the above items. It is because of my uncertainty as to its implications that I would have some real doubts as to the reliability of responses, generally. I will be much interested in what you get in returns. Do you have some device for measuring the internal consistency in response? How do you validate responses? Can you differentiate between the "courtesy response" and those based upon a complete understanding of your term "ecological systems?"		24.1
I think your concept has great merit and can serve as a means for showing the interrelationship of Home Economics to other areas. We see a clearer focus.		24.8
I resist the use of the word "is" when, so far as I know, could be would be a more appropriate term.		26.1
If the questions are to be answered only on the basis of reading the materials attached, I'm afraid I failed. I've tried hard to study the material again and again. I am assuming you don't want superficial answers but that you are testing out the rationality of the material you've presented. I feel guilty that my responses don't fit in neat "cells" for you.		26.2
A few years ago I took a graduate course from a person who was a Professional Interior Decorator who had started her career with a degree in Home Economics. She contended that the trouble with our country was that we hadn't learned to be meaningful because we use too many words. To me, this is our problem in Home Economics. We make everything complex. I feel this approach you have outlined is too complex for clear interpretation.		32.4
Seems as though you may get so carried away with your system you may miss some important aspects of total development. The systems approach is not necessarily a panacea, for all that is wrong with HoEc. The big question is,		34.5

Table 30.--Continued

"Quotes"	COMMENT	CODE

"What kinds of people have become home economist?" The profession is too female oriented with very rigid restrictive persons who talk change but have no idea of relinquishing power.		
I appreciate the opportunity to respond to this questionnaire. Your study should be a good start in identifying, defining, and clarifying many environment relationships and how they affect human development and especially in the family environment context.		36.6
What you are doing is great--certainly the profession needs this sort of focus. I find the ESF confusing and generally disheveled. Good Luck!		36.7
The total emphasis makes a great deal of sense to the alert professional; it may make little or no sense, however, to the person outside the profession with little or no concern about the field and an image (conceptual) of the profession in the early 1930's.		36.10
Systems theory hold great potential in this, or other fields, in my view. However, attempts to use it will be discredited if its credibility is not established through effective application to the substance of concerns. This is the third representation of this view I have seen. Each has been highly abstract, simplified discussion of aspects of systems theory. Can it be effectively applied to specific human issues in a newly revealing way? I have yet to see it done. I hope it can be done. However many of the Q's in this document are merely speculation. The answers are empirical and the proof of the pudding is in the eating. There is a difference between promise and performance.		39.1
My background on this systems approach is nil; therefore, I fear my questionnaire is invalid.		39.10
I am afraid I do not have the background or sufficient information to complete this questionnaire. While the profession does concern itself with families, it must also concern itself with individuals who do not operate within the family as it has been defined. Perhaps I have misinterpreted the Ecological Systems Framework.		39.11

Table 30.--Continued

"Quotes"	COMMENT	CODE

To achieve comments 7, 15 and 16 the framework would need to be much more sophisticated than the present presentation. Nonetheless the framework as presented is thought provoking and challenging.		40.1
Since you gave different definitions of Home Economics and Human Ecology--why are you using them as having one identity in your above statements?		42.1
The thrust of all this appears to be a struggle with semantics looking for new ways to express the concepts and goals of the Home Economics profession. Your paper demonstrates excellent work in analyzing and synthesizing these ideas.		43.5
You have too many inexact in-precise statements to develop any truths.		47.5
This really should be given more time and thought than is available.		47.6
Complex but interesting and helpful means of viewing and studying the profession.		48.1
Your constant referent to "the profession" without using it in the Glossary of Terms is confusing. Are you talking about the Profession of Home Economists, Human Ecologists, Human Developers, etc.? Also, without thorough reading in your concept and an understanding of your objectives, I found it most difficult to answer your Questionnaire. Maybe I am too practically oriented but what we need in Home Economics is not more scientific research but more applied, realistic studies that will aid all mankind.		50.2
RIGHT ON!		50.3
RE: 10--Wording with "can" would also make 4 (agree) applicable, (5) uncertain as to comparatives usefulness in relation to other approaches.		51.1

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