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ART IN THE HOME SCIENCE CURRICULUM OF THE
AGRICULTURAL UNIVERSITIES IN INDIA:
PROTOTYPE FOR THEORY INTO PRACTICE

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Y. KRISHNAMOORTHY BHAT, B.A., Dip., M.A., M.F.A.

***********

The Ohio State University

1976

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This dissertation is most respectfully dedicated to those people who, throughout my life, have inspired me through their teaching, motivated me by their example and encouraged me by their love and appreciation.
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CHAPTER I
BACKGROUND OF THE STUDY

Introduction:

It was not until early in the 20th century that the importance of education for women was recognized in India. Even later when they entered higher education, their particular needs were not considered. The education offered to women was the carbon copy of education offered to men (1).

Swami Vivekananda said:

"But know for certain that absolutely nothing can be done to improve the state of things, unless there is spread of education first among the women and the masses...Religion, arts, science, housekeeping, cooking, sewing, hygiene, the simple points in these subjects ought to be taught to our women....History and Puranas, housekeeping and the arts, and duties of home life and principles that make for the development of an ideal education, have to be taught with the help of modern science...And the female student must be trained up in ethical and spiritual life...It is only in the homes of educated and pious mothers that great men are born" (2).

Mahatma Gandhi expressed:

"I believe in the proper education of women. The future of India is with women. Who can make a more effective appeal to the heart than women?...Women is the incarnation of 'Ahimsa'. Ahimsa means infinite love, which again means infinite capacity for suffering. Who but woman, the mother of man, shows this capacity in the largest measure? Let her transfer that love to the whole humanity, and she will occupy her proud position by the side of man as his mother, maker and silent leader" (3).

Early in 1930s the special duties that women had to perform as home makers in both the community and the nation were
recognized by the national leaders and freedom fighters. From this recognition came the evolution of a curriculum appropriate to the needs of women. With this evolution came the emergence of Home Science Colleges for women in India. Home Science is concerned and interested in effecting improvements in home and family living. It influences the growth and development of family members through making meaningful the knowledge of the environment in which they live.

With the spread of women's education, the persistent questions remain: what should be the content and pattern of education for women? What knowledge and skills are needed for women today? Is education for home and family life necessary at all? These basic questions loom even larger today than ever before.

In the 1960s the establishment of agricultural universities after the pattern of U.S. land-grant colleges made Home Science an important area of studies in the system. This development identified the potentialities of different aspects of strengthening home and family life closely related to farm and home. Agricultural universities in India continue to strive for an integrated development of overall agriculture and the home life to contribute to the cause of national development. In fact, the major goal of Home Science is "abundant living and highest happiness" (4). In order to achieve such a goal, it draws upon the knowledge base and applications from various arts

---

1 In India, Home Economics is called "Home Science". The Home Science Association of India after extensive consideration, has decided to retain the name Home Science in 1952. Therefore, this term will be used throughout this study. (Devadas, P.R. Meaning of Home Science Coimbatore, India, 1958, p. 12)
and science. According to Dr. Josephine Staab, Home Science is a field of study in which the basic disciplines of the biological and natural sciences, the social sciences and the fine arts are applied to the everyday problems of personal, home, family and community living (5). Home Science, or the study of homemaking, in effect, centers on activities such as—food, shelter, clothing, health, child care and beautification of the home environment. Leaders in the field and the basic literature of the field clearly support this large, comprehensive purpose.

Home Science education in India in the context of the agricultural university system is a recent, fast developing enterprise. These developments require: (i) a critical examination of all aspects of the nature and organization of instructional resources; (ii) an identification and assessment of the changing needs which such organizations of instructional resources are designed to serve; and (iii) the creation of a theory base that might serve to evaluate such instructional resources which focus on the contribution of the arts. The study of art is basic to any reformulation of resources related to Home Science. It cannot be ignored as one of the integral "content areas" to be developed. The present study in pursuing the three objectives delineated above will focus on art experiences for the emerging Home Science curriculum in the agricultural universities in India.

Statement of the problem:

Art is important as a curriculum area in any educational system because of its distinctive role in human development and the creation of unique life styles. As Irving Kaufman put it:
"The distinct value of arts and humanities is in the realization of the self and the development of self knowledge. If such a value is accepted any approach for education or any innovation intent must allow for the characteristically affective and intuitive modes of instruction with experiences along with the cognitive. The development of an art program needs to aim at enhancing both sensation and sentiment in the classroom. Yet a felt and intelligent involvement with these human attributes that leads to perception and understanding demand that educational guides, like the very nature of art, respect individual differences, subjective responses and varying life styles" (6).

Discussing quality education, Harry Broudy asserted that quality in education refers to the sort of schooling which develops or promises to develop the individual’s potential for "high grade" human living. He continued his contention

"...that education is good which leads men on virtue (the peculiarly human excellences) and wisdom. Wisdom is the use of the best knowledge available to make judgments about truth, of goodness and of beauty. In practice, the cultivation of the virtues constitute the good character and the life style that we call eminently human" (7).

The recent Carnegie Report (8;9) also recognized that the study of creative arts in general education programs in higher education enriches the total program. Moreover, beyond this widespread recognition of the importance of art in higher education, there is a growing recognition of the fact that the applied area of art is closely related to basic areas in Home Science education. Statements of the philosophy of Home Science education have spelled out the need for the study of art.

In a committee report of the American Home Economics Association (10) it has been emphasized that in view of our rapidly changing society, we must prepare the individual to deal successfully
with new situations. We must help her to develop certain fundamental abilities or competencies and understandings, that will continue to be effective in personal and family living regardless of the particular circumstances of the individual or family. Though the committee was thinking particularly of individuals and families in the United States when it formulated a list of abilities, these abilities are sufficiently international and clearly are suited to Indian conditions. Two points made in the above report are strongly supportive of the study of art in Home Science education. They are:

(i) Fundamental to effective living are the competencies to enrich personal and family life through the arts and humanities and through refreshing and creative use of leisure; (ii) Development of mutual understanding and appreciation of different cultures and ways of life, and co-operation with people of other cultures who are striving to raise the levels of living. In summary both important professional reports in the field of higher education, in general, and in the field of Home Economics, in particular, support the fact that the arts, broadly conceived, are a crucial part of the basic, interdisciplinary curricular content of the emerging field of Home Science.

Although this is the specific focus of the study, a larger problem arises out of the dilemma faced in developing a more adequate theory base for art in Home Science. On the one hand, we have a need to develop those self-actualizing "inner", or affective realms, of human experience and on the other, there is the need to develop specific competencies. Such competencies are required for individual growth but are especially crucial to the national development of a so-called "developing country" such as India. The intent of this
research is to synthesize a rationale that will attend to both of these personal-social dimensions. An adequate theory for an applied field like Home Science could not rest on any less than such a synthesis and still stand the test of reality.

In view of this state of the field, this investigator has focused on the role of art as a curricular area in Home Science as this discipline is developing in the agricultural universities of India.

Need for the study:

The need for the study described above is great. There is need to develop adequate theory base to give direction to those who are planning and implementing curricula in Home Science with respect to art. Increased rate of change is one significant factor in this lack of adequate theory. About 90% of all scientific endeavour dates back only 50 years. According to Rosemary Beumer,

"Everyday finds scientific research scaling the wall of yesterday's ignorance and revealing vistas and problems hitherto undreamed of. Human beings everywhere are subject to its impact" (11).

Edmund Burke Feldman stated in the preface of his book, Becoming Human Through Art:

"Every assumption...every goal and every technique of education as we know it is being subjected to the most thorough going analysis and criticism. As a result the atmosphere in which we learn, study and teach is one of profound uncertainty. It is harder than ever to say anything with confidence about the nature of art, the behavior of children and youth and the process of learning. Still we must try" (12).

Developing such theory-base will establish the rationale for the study of art in Home Science curriculum both for its intrinsic and extrinsic values. These values are considered necessary for personal
fulfillment, social order and for building national character.

The standard justification of including art in most of the curricula in higher education is for its intrinsic value as viewed by Haufman, Broudy and other scholars who propagate humanistic approach to education. This investigator is of the view that it is important here in this study to consider its possible extrinsic values as "means toward an end" -- end being self realization and development of self knowledge, and to use them in identifying the artistic content that are appropriate for the emerging Home Science curriculum of agricultural universities in India. It is also possible to find some suggestive clues to consider the possible extrinsic values of art appropriate to Home Science students through selecting the specific competencies identified by the professionals in the field.

In this setting of clear need, this investigator has researched the problem identified above and proposes a working model for art experiences in Home Science curricula. In effect, he has developed a theory base for the inclusion and evaluation of such curricular content.

The study draws on data from the agricultural universities in India, in general, and Punjab Agricultural University Ludhiana in particular. It also makes special use of the competency-based curricular proposals developed by the American Home Economics Association (AHEA) (13). The findings thus have value for Home Science programs in all of the institutions of higher education in India and of special significance for the Home Science college of Punjab Agricultural University.
Procedure for the study:

This study is both descriptive and prescriptive in the traditional uses of those terms. Adequate curriculum theory must confront the so called "real world" but it must also project, or prescribe "what ought to be". In the behavioral sciences, such theory building activity is commonly known as middle-range theorizing. This investigator will employ the modes of inquiry that characterize a middle-range theorizer "at work". Chief among the procedures used and the sources of data drawn upon were the following:

1. Examination of designated aims and objectives in different areas of the existing Home Science curricula in selected agricultural universities in India.

2. Delineation of the competencies and criteria as a basis for conceptual model for art experiences in such curricula.

3. Development of a "working model" based on the conceptual framework generated in 2, above.

4. Projection of questions, issues, problems raised by the implementation of the working model in an institutional setting—namely, the Home Science College of Punjab Agricultural University.

The study was limited by the accepted constraints of philosophical, theory-building research. Its validity will rest finally not only in the logic of its proposals but in the empirical field testing of the specific programs that are generated within the proposed conceptual base. Such testing clearly is beyond the scope of this investigation which is viewed as a significant first step in generating the basic foundations for such field-oriented efforts.
CHAPTER II
RESOURCES FOR THE STUDY

The Role of Agricultural Universities in India and their Relation to Home Science:

In 1948-49 an All India University Education Commission, chaired by Dr. S. Radhakrishnan, made an overall study of higher education in India. Including among its ten members were two American educators, A.E. Morgan and John J. Tigert. The tone of the report of the University Education Commission is indicated by this quotation: "We were everywhere struck by a deep general awareness of the importance of higher education for national welfare, and an uneasy sense of the inadequacy of the present pattern" (14).

The commission examined higher education in terms of its ability to play the role expected of it in the newly independent Indian democracy. A distinguishing feature of this report was emphasis on the general advancement of rural India. Education was to be viewed as an instrument of social change, with the double aim of preparing individuals for a particular vocation and for citizenship in a democratic community. It was recommended that not only a much larger number of people must be educated, but also this education should be more specifically oriented to rural life and practical problems. It also emphasized that the practical skill should be viewed as equal in dignity and worth to purely intellectual skill.
The commission's most far-reaching suggestion for Indian agricultural education was its recommendation that a system of rural universities be established to supply the ever-increasing range of skilled persons needed by India. The requirement of an educated citizenship for such individuals was also emphasized. "A new beginning is desirable, with freedom to create a distinctive tradition as to purposes, spirit and methods" (15). These rural universities leaned heavily for their inspiration on the U.S. land-grant university system.

Through its concept of rural universities, the University Education Commission introduced the land-grant college philosophy in India. The commission's report has since provided the basic legitimacy for the development of what came to be called agricultural universities based on U.S. land-grant pattern.

A land-grant philosophy is directly related to the democratic spirit of the country. Three major aspects of the land-grant college philosophy as it has evolved in U.S. can be distinguished. These include (i) the relationship of land-grant college philosophy to democratic philosophy through education for all people regardless of economic or social status, (ii) concern with service to the people and the states, (iii) the legitimization of practical vocation education as a fit subject for university training (16). It was this philosophy, if not the exact organization, which the key Indian leaders sought to adapt to the Indian agricultural educational system as a means whereby people of all economic and social levels could participate in a higher education, oriented more directly toward the practical vocational needs of the common man in agricultural sciences, home economics, and humanities. A major purpose was to educate a
greater number of people in a more practical vein. The resulting system of new agricultural universities in India had this very effect of extending higher education to those who previously could not afford to attend the liberal arts colleges, particularly the rural population (17).

The second aspect of the new agricultural university philosophy is related to the democratic spirit through the concern with public service for both the immediate and long-range needs of society. Agricultural universities have been responsive to the needs of rural people and have been able to adapt to changes in these needs. The agricultural universities have developed an outward looking orientation and a feeling of responsibility for agricultural development, improvement in home and family life in every state of the country, rather than an inward looking "ivory tower" program with little relationship to current rural community problems (13).

The third aspect of the agricultural university philosophy follows from the second. Because these universities were responsive to the needs of the people in each state, practical scientifically oriented education was gradually elevated to an equal status with traditional liberal education. These universities did not seek to replace the pursuit of fundamental knowledge, but to establish the proper balance between fundamentals and applications of this knowledge toward practical solutions of rural problems (19).

This reform from a traditional and British conceived system to a new concept more or less in harmony with the modern U.S. system was brought about in a phenomenally short period. Apart from the necessity of the times, the wider acceptance was due more to vast social and
economic changes that have occurred in the minds of both the people and the government of the largest democracy of the world. In the post independence period, a massive effort was made to raise living standards.

These universities are meant for young men and women of rural areas who want not only education, but also education with a purpose. The prevailing sense of purpose is the urgent need of the day to assist in some precise capacity in the vast enterprise of democratic national development in a system of democracy. It is an enterprise which requires well thought-out vocational and prevocational education. The present agricultural universities are a fulfillment at a higher academic level of the idea of Basic Education as originally planned and advocated by Mahatma Gandhi. This type of agricultural education aims at the development of the material and mental resources of the community through properly educated citizens (20). In the Gandhian tradition the ways and means for realizing this goal are to be learned through a study of the existing situations on the one hand, and acquisition of the specific knowledge on the other. The execution is in the form of actual work among people through the utilization of available resources provided by the people and the government.

New agricultural universities have been established with the approval of the Planning Commission and on the central government's initiative and sponsorship in twelve states of India - Uttar Pradesh, Punjab, Rajasthan, Madhya Pradesh, Andra Pradesh, Orissa, Mysore, Assam, Maharashtra, West Bengal, Madras and Kerala (21). The recent Education Commission has recommended the establishment of at least one agricultural university in every state (22). It is likely,
therefore, that agricultural universities will soon be working in all states, with state-wide responsibilities for teaching, research and extension in all agricultural sciences, home science and humanities. This commission specifically recommended that "a rural university should include a ring of small, resident, undergraduate colleges with specialized and university facilities at the center." A common core of liberal education was also recommended for the rural universities as for other universities, though the method used in teaching and learning may be different. As to advanced and specific subjects, the commission recommended that no field of human concern should be foreign to the rural university. The curriculum should be made to fit the needs of individuals. Students in this curricula no longer need to conform to an arbitrary curriculum.

The commission desired that these universities should have the following features:

1. A concern for all aspects of increasing, disseminating and supplying knowledge related to agricultural sciences and human development including basic and applied research.

2. A primary emphasis on teaching and research directly and immediately related to the solution of the social and economic problems of the countryside.

3. A readiness to develop and teach the wide range of applied sciences and technologies needed to build up rural economy.

4. A readiness, not only to teach undergraduates, post graduates and research students, but also to give specialized training to young people who are not
candidates for degrees, and
5. An emphasis on adult and continuing education side by side with teaching regularly enrolled students (23).

With a distinctive spirit calling for a new kind of institution to serve the common people and the needs of democracy in India, agricultural universities have been striving to fulfill their mission and purpose. The tasks of these universities are as follows:

1. To provide leadership in politics and administration, the professions, industry and commerce.
2. To meet the increasing demand for every type of higher education—literature and scientific, technical and professional.
3. To enable the country to attain in as short a time as possible freedom from want, disease and ignorance by the application and development of scientific and technical knowledge.
4. To make provision for opportunities for the intellectual, aesthetic, ethical and skill development of individual students and to provide campus environment which can constructively assist students in their more general developmental growth (24).

Home Science is identified as one of the important fields of learning in the land-grant system of higher education and so a college of Home Science is an important constituent of an agricultural university. It is the field of knowledge and service primarily concerned with strengthening family life (25). It helps in educating the individual for family living, improves services and goods used by the family and furthers community, national, and world conditions favorable to
family living. The research programs in Home Science aim to discover the changing needs of individuals and families and to develop the means of satisfying these needs. "Improving agricultural practices for the development of the country" is the motto of an agricultural university which necessitates decision making (26). A woman plays an important role in decision making and makes decisions for herself and for her family, and hence, Home Science education in all agricultural university system is crucial not only for individual development but also to further national development. She has to acquire the ability to clarify the family goals and to see each piece of the day's work in relation to time, energy and money available in order to make effective decisions at the right moment to achieve desired goals. The changes required in the farm families and farm practices require such decision-making by women (27).

In effect, Home Science is concerned and interested in effecting improvements in home and family living (29). It influences the growth and development of family members through the knowledge of environment in which they live and accomplishes thereby many of the larger purposes of a developing democratic society.

The Role of Women and their Education in India:

Ancient India:

For many years Indian women were excluded from any formal education except training in domestic and religious duties at home. Tradition emphasized high ideals of virtue and devotion. When an opportunity has been given to them, they have shown themselves capable of great intellectual attainments.
Dr. Veda Mitra wrote—"in ancient time the female education was entirely domestic and vocational. They were being prepared for the duties of the household" (29). According to the Satapatha Brahmana, weaving, skilled spinning and ritual decorations in home are the functions of women (30). Manu, the ancient law-giver said that the woman should be employed in looking after the expenses of the household, maintaining the cleanliness of their persons and of the house and in looking after the ceding, wearing apparel and household furniture (31).

Vatsayana, the great teacher, wrote of the manner of living of a virtuous woman:

"A virtuous woman that hath affection to her husband shall in all things to her husband act according to his wishes as if he were divine. She shall keep the house well cleaned and arrange flowers of every kind in different chambers and surround the house with a garden and make the floor smooth and polished, decorate with patterns of rangavalli. Above all she will venerate the shrine of the household deities. To the parents of her husband she shall behave as is most proper, speaking to them softly in few words, being always quiet and respectful without self-will or contradiction. She shall always consider in the kitchen what her husband likes and dislikes and shall seek to please him—If her husband does wrong, she shall not unduly reproach him, but show him a slight displeasure and rebuke him in words of fondness and affection" (32).

Womanhood in India has always been placed in an exalted position and has been considered as a symbol of 'Shakti'—the energy which sustains the power of manhood. It is significant to note that it is the 'mother' who gives up her life in order to bring new life, who gives birth, who rears, who brings up, who nurses, who takes care of and who loves in spite of faults, is worthy of being respected and
worshipped. A wife remains a wife without becoming a mother is not recognized as a worthy ideal (33).

From the ancient times, the scriptures have pointed out the important place women have in shaping human destiny and the importance of women's education in their household knowledge and skills has been recognized. Special effort was made to give them a good grounding in domestic and culinary arts and fine arts like music, dancing, painting, garland-making and household decorations (34).

Most of this education was finished before marriage. Some women were attracted to medical studies. The majority of such women specialized in gynecology. Some individuals so trained wrote authoritative works in medical science. Among the Hindu works on medicine translated into Arabic in the 8th century A.D., was a book on midwifery, written by a woman doctor, whose name appears as "Rusa" in Arabic. Educated ladies in cultured families continued to make their own contributions to literature, composing poetry in Prakrit and Sanskrit. Ancient Indian History knows of several dowager queens and princesses, who used to make part in the administration of their kingdoms. In ordinary Kshatriya families some military training seems to have been imparted to females. Inscriptions have been recorded of the cases of governments of the day, honoring village heroines with the gift of suitable ornaments (35).

In typical families, literature and the fine arts were usually the favorite topics of female education. This education was, of course, not calculated to make women economically self-sufficient. One may note that the theory that women ought to be economically
independent is of quite a recent origin. Changes in life styles of the society have clearly been factors in this shift. The Arthasastra of Kautilya lays down that the state superintendent of weaving should make special arrangement for sending cotton to and receiving the yarn from those women, who were crippled, or whose husbands were dead or gone abroad, and who were thus, compelled to work for their subsistence (36).

In India, "mother's profession" is full-time with diversified roles in family and community. She is a doctor, nurse, psychologist, banker, tailor, cook, nutritionist, caterer, gardener, teacher, economist, educationist, recreational worker, home manager, decorator, companion, social worker, wife and mother. The 'sixty-four' arts which a girl had to know in order to make her suitable for marriage and home life indicate that from the ancient times, forefathers have emphasized the need for sound knowledge for efficient homemaking involving all of the diversified responsibilities. Again, it is the sole responsibility of a mother to shape the future of her daughter teaching from early childhood the various aspects of home-making—cooking, entertaining guests, looking after children, managing money, decorating the home and saving for the future, teaching one or two handicrafts of the family tradition to increase her income and save for the future. Her place in the home has been idealized by Gandhiji. He has described her "the custodian of all that is noble and pure and the very embodiment of sacrifice and service" (37).

Pre Independence Period:

The foundations for future life are laid in childhood, in fact, in infancy. During this period the mother is solely responsible
for the growth and development of the child. Besides taking care of the basic needs of the child i.e. feeding, clothing, shelter and cleanliness, the mother also helps the children in learning obedience, truthfulness, loyalty to family and the prevalent religious, social and cultural values. Although, there are a few centers offering preschool educational programs e.g. nursery schools, kindergarten schools and Montessori schools, for the majority of the children, the formal education starts at five years of age. Therefore, the mother has a very significant influence on the general development of the children before starting the school. It is from the mother that the children learn keeping the house clean, washing hands and utensils, eating together, sharing the family facilities, keeping things in order and taking care of their own belongings. It is in the home that children become enculturated in the basic art, music and dance movements.

Gandhiji expressed:

"...I believe in the proper education of women...
Further more, man and woman are equal rank but they are not identical. They are a peerless pair being supplementary to one another, each helps the other, so that without the one the existence of the other cannot be conceived, and therefore it follows as a necessary corollary from these facts that anything that will impair the status of either of them will involve the equal ruin of them both. In framing any scheme of Woman's education, this cardinal truth must be constantly kept in mind. Man is supreme in the outward activities of a married pair and therefore it is in the fitness of things that he should have a greater knowledge thereof. On the other hand, home life is entirely the sphere of woman and therefore in domestic affairs, in the upbringing and education of children, women ought to have more knowledge. Not that knowledge should be divided into watertight compartments, or that some branches of knowledge should be closed to anyone; but unless courses of instruction are based on a discriminating
appreciation of these basic principles, the fullest life of man and woman cannot be developed" (33).

He continued saying "Woman has rightly been called the mother of the race, we owe it to her and to ourselves to undo the great wrong that we have done to her" (39). A Chinese proverb pronounces the importance of the proper education for women and strengthen the argument of Gandhiji: "When you educate a man, you educate an individual, when you educate a woman, you educate a family" (40).

The Women's Education Committee of the Central Advisory Board of Education, which examined the girls' primary education in India in 1936, considered the co-education at the primary stage should be the ultimate aim in all small rural areas but suggested the establishment of separate schools, where the number was large (41).

The curriculum for girls' schools was the same as that for boys' schools but modifications were made so as to make it more suitable for girls and suited to the local conditions and people. In a number of schools, arrangements were made for vocational instruction which included classes for carpet making, weaving, spinning, basket-making, lace-making and embroidery. In secondary schools some special subjects like music, needlework, painting and domestic science which were considered useful for girls were taught. But in girls' colleges the teaching of art subjects took the first place followed by science and professional subjects. The technical and professional studies gained ground during mid 1940s but some reformed curricula also had a place for such cultural subjects as architecture, music, handicrafts and art (42).
A very important development of mid 1940's was that the orthodox system of primary education was gradually being replaced by the Basic Education system, the main principle of which was learning through useful activity or crafts. In the post-war Educational Development Plan of 1946, the need for having an increased number of women teachers at various stages was stressed. It was also recommended that married women and widows should be increasingly employed in the profession because it had been realized that marriage and motherhood provide a background of knowledge and experience which is of inestimable value to women entrusted with the care of the young (43).

Another outstanding feature of this period was the holding of women's conferences on educational reform all over the country. Progress of women's education was assisted both by the Special Advisory Women's Committee, attached to the girl's institutions and by the interest shown by women's associations all over the country. There was an all-round educational development and it helped in raising the social status of women (44).

Post-Independence Period:

The era of educational reconstruction inevitably followed the wake of social and economic reconstruction initiated by the National Government after the Independence in 1947. The first steps taken in the direction of educational reconstruction were the appointment of a series of commissions to survey, study, review and recommend improvements in the different areas of education. The education of girls expanded considerably after the independence and during the first and second five year plan period (1950-1960).
In 1964, a committee appointed by the National Council for Women's Education recommended that in the middle school and secondary levels, diversified courses such as those of home science or fine arts should be increasingly introduced to meet the special needs of girls. The general courses should not attempt to give vocational competence but craft or handwork or productive labor of some type should form an integral part of such courses. It also recommended that universities should explore possibilities of further developing a large variety of courses which would meet most of the special needs of girls and women (45).

The report of the Education Commission in 1966 recommended drastic reconstruction—almost a revolution in Indian education. It said,

"we need to bring about major improvement in the effectiveness of primary education; to introduce work experience as an integral element of general education; to vocationalize secondary education; to improve the quality of teachers in sufficient strength; to liquidate illiteracy; to strengthen centers of advanced study and strive to attain, in some of our universities, at least, higher educational standards; to lay special emphasis on the combination of teaching and research; to pay particular attention to education and research in agriculture and allied sciences" (46).

An important program towards the reconstruction of secondary education recommended by the Secondary Education Commission was the establishment of multi-purpose schools. In addition to core subjects such as languages, social studies, general science, craft and physical education, these schools had arrangements for the teaching of two or more of the following groups of subjects, e.g. humanities, science, agriculture, commerce, home science, fine arts and technical
subjects. It was during this period that the need for suitable education for girls was emphasized. Home Science was offered as one of the electives for girls in this new emphasis (47).

Recognizing the need for a special type of education to cater to the needs of women, the All India Women's Conference emphasized the importance of Home Science education at higher levels. Therefore, it was in 1932 that the first college offering a regular program in Home Science was started in Delhi, following which M.S. University, Baroda and Madras University introduced Home Science as one of the subjects.

Gradually this academic program received recognition. Today about forty institutions offer Home Science programs including the recently established agricultural universities wherein Home Science is an integral part of the system (48). Home Science, besides providing general education, prepares students to work in the professional fields of dietetics, food technology, family welfare work, extension projects and schemes of ICMR, ICAR and council of child welfare and teaching of Home Science in schools and colleges.

There were unmistakable signs of a new educational awakening among women. Rural areas were no longer isolated and distances caused fewer problems in the expansion of education. Late marriages were becoming common and the prejudices against educating girls and women were dying out. They are now tending to choose their own careers and to share equally with men the responsibility for the progress and development of society.
Traditionally, the woman of the Indian home was considered as the guiding spirit and the wealth of the home. She was respected and treated as 'Graha Lakshmi' (the wealth goddess of the home). It is she who takes the responsibility of all the household activities such as housing designs, furnishings which will save money and care, and how to get maximum work through minimum equipment, how to build the house for beauty, health, ventilation, ease of movement, functional efficiency; how to rent houses for maximum satisfaction; how to make suitable adjustments and modifications in the rented house or purchased house etc. She also takes interest in maintaining the kitchen gardening and landscape gardening. She makes best use of the available resources, material and human in order to achieve desired values and conserve time, energy, money, space and labor.

In effect, the traditional role of the woman as home-maker made her a key individual in the transmission of the cultural heritage of India. It should be clear as is true in all societies, this ideal role was not always achieved.

With the changing needs of the time, it was realized that women had an important role to play not only in the development of her family but also for society. Therefore, it was emphasized that Home Science be taught as an academic subject to prepare women for different professions as well as for her important traditional role as a wife, mother and a teacher.

The Trends in Home Science and the New Promise:

If, education is preparation for life, as Gandhiji said, Home Science, because of its intimate relationship and concern for
individual and community life, has a tremendous potential for General Education. Efforts were made to make this education available to all girls through the establishment of Home Science colleges throughout the country. Preparation for teaching Home Science in schools and colleges was also undertaken.

The Ministry of Food and Agriculture, Government of India through its Directorate of Extension started training programs for Gramsevikas who after completing their training and acquiring skills in home science extension techniques, live in villages and work with rural women in order to effect desirable changes in home practices, food habits, sanitation and living. Such community agents study the needs and strengthen the weaknesses of the rural homes and give directions to the laboratories regarding the kinds of research required to meet those demands. This type of extension work helps people recognize and solve their individual family and village problems, use the findings of research to improve living; work with youth and children, mobilize rural people to meet their needs. Such activities help to promote cultural growth of village communities and develop village leadership.

The Gramsevikas in the field show rural women simple and economical ways of feeding and clothing their families. They assist

2 Gramsevika is a Home Science extension worker-a woman who has undergone one year training conducted by the Extension wing of Ministry of Agriculture, Government of India to become an example and source of leadership for the rural home-makers. As she lives and works in the village, she helps village women to find out their needs and problems and helps them in solving them. She wins the confidence of the villagers and becomes the source of information in matters connected with home-making. (Devadas, P.R. Meaning of Home Science, 1958, pp. 44-45).
village women in making their homes more comfortable and attractive. They constantly try to find out ways of interesting farm women in home improvement. Gramsevikas have helped to stimulate rural women's interest in improvement of childcare, better health practices, sanitation, storage facilities, clothing construction and kitchen arrangement.

Modern technological advances have made available new processed foods, new textiles, cosmetics, plastic articles, novel utensils and equipment. They have also affected production in home, buying capacities, and sense of values. Another important trend is the increase in rural population migrating into the urban areas, and the unique demands this shift makes in life styles. Most of the villages also are being developed by providing modern facilities such as electricity, water, transportation, communication, education and development of agriculture and industry—all changing the nature of village life.

Industrialization has made it possible for many persons to have greater income. The rising standards of living have created the need for women to work outside the home. The dual role of modern woman as a home-maker and career has created new problems. She has to adjust to both the demands of the career and those of home-making. In making this adjustment, she often has to struggle between value conflicts, such as duty and devotion; affection and ambition.

The growing mobility and mixing of people have also led to inter-caste, inter-state, inter-religion and even international marriages. Through these alliances, several cultural patterns merge into one, with their concomitant effects on the home.
The rapid changes in family life have their effects on the moral and spiritual values in the homes the place of religion in the home. Religion as an integral part of life is in danger of being ignored because of the tensions, lack of time in the busy modern life. The ancient culture of India has to be revitalized and reinterpreted in the light of all these new trends. It needs to be reinforced from time to time with the benefits of science to humanity through proper education.

As I have explicated thus far in this sketch of the history of home-making in India, the "art" is very old and very much a part of the traditional culture. Teaching such an art in the present educational institutions in a "systematic way" is important because, society has changed in its basic modes of living. The impacts of science, and technology have altered the ways of home living. As a consequence, we have to help students develop abilities to adjust to changing standards of living, educational systems and psychological trends in social life. The modern facilities brought by electricity, machinery, transportation, international contacts, new technologies in food production, clothing and knowledge of new findings about the nature of the mind, theory of economics—all have created the imperative need to develop in youth new competencies. Economic necessity and increased leisure time made available through science, have caused many women to be employed in careers outside the home. To be employed without losing virtues of home-making and family living, is the challenge of contemporary Home Science.
Today, the Indian woman enjoys many privileges and opportunities. With these new opportunities has arisen the need for fostering education which will strengthen her position as mother, bear of culture, citizen and home-maker. This is a large challenge to be met by educators.

The Function of Art and Crafts in Indian Culture and its Present Status:

The purpose of art in a traditional Indian society was utility. When the society decided that such and such a thing should be made, it was by art that it was "properly made". In other words, there could be no "good use" without art. The art is the property of the artists, a kind of knowledge and skill by which he knows, not what ought to be made, but how to imagine the form of the thing that is to be made, and how to embody this form in suitable material, so that the resulting artifact may be used for what it is made (49). For example: the potter makes the earthenware, not for aesthetic reasons, but, in order that people may be able to use them for drinking water, cooking food. It is a matter of fact that the well made pot will be beautiful, but it is not for the sake of making something beautiful that the potter goes to work. It is a matter of fact that a well made icon will be beautiful. In other words, it will please when seen by those for whose use it was made. In these instances, the craftsman is casting his bronze primarily for use and not as a mantelpiece ornament or for the museum showcase (50). As Eric Gill put it, "Look after goodness and truth, and beauty will take care of itself" (51).

Art was viewed by the people in India as a way of life--life as interpreted by Hindu religion and philosophy. It has seldom
been understood in the modern western sense of "Art for Art Sake."
Nor is art produced for beauty's sake. People in India hold the view
that art is produced according to hieratic canon, devoid of idio-
syncracy. Art objects are of public rather than private significance
and are concerned with the expression of conceptions of general
importance and wide spread belief and not with personal and particular
likings (52). According to Goomaraswami,

"India has not relied on the vagaries of genius, but
on training. She would regard with equal suspicion
"stars" and amateurs. She knows diversities of skill
among professionals, as apprentice or master, and
likewise the products of different ateliers, provincial
or courtly that anyone should practice an art as an
accomplishment, whether skilfully or otherwise, would seem
ridiculous. Art in this sense is a function of the
social order, not an ambition. The practice of art is
typically an hereditary vocation and not a matter of private
choice. The themes of art are provided by general
necessities inherent in racial mentality,
and more specifically by a vast body of scripture and by
written canons; method is learnt as a living workshop
tradition, not in a school of art; style is a function
of the period, not of the individual, who could only
be made aware of the fact of stylistic change and
sequence by historical study. Themes are repeated by
generation to generation, and pass from one
country to another; neither is originality a virtue, nor
'plagiarism' a crime, where all that counts
is the necessity inherent in the theme" (53).

From time immemorial, the village and cottage arts and crafts
seemed to have played a pivotal role in the social and economic life
of the Indian people. Besides providing ample employment for the rural
folk, the cottage industries influenced the process of decentralization
of economic power at the rural level. The cottage industries almost
acted as a defensive economic wall against the ravages of time and
man. These industries were by no means primitive. Within their warp
and woof they displayed fine skill and varied techniques developed
through generations of dignified toil. Through the centuries until
the calculated destruction of the indigenous industries in British
times, the products of India were found in all the markets of the world.
These brought wealth to the country, but it seldom was concentrated
in a few layers of society. It is true that the royalty displayed fabulously rich, but poverty was not so great and absolute as it
has become in more recent times. If the cottage industries taught
the village independence in its ordinary life from the exactions of
the Capital, they also taught the people in the village interdependence.

Handicraft is rightly described as the "craft of the people". In India it is not an industry as it is commonly understood; for the produce is also a creation symbolizing the inner desire and fulfillment of the community. The various pieces of handicrafts whether metal-
ware, pottery, mats, wood work, weaving, embroidery, paper meche, pat painting, block printing, ivory carving, jewelry making, or image making clearly indicate that while these are made to serve a positive need in the daily life of the people, they also act as a vehicle of self-
expression for they reveal a conscious aesthetic approach. At the same time, they manifest in their structure the principles of 'Silpa Sastra'-- a treatise of art, the ancient scientifically evolved formulae and regul-
lations for manufacturing (54).

In the peace and quiet atmosphere of the countryside, the village community evolved a culture of its own out of the steady flow of its own life and of the nature around it. The community acted as a single personality because of common integrated pattern of life, in responding to the common joys and burdens of life, to the common occasions and
landmarks that stood out in the flux of times and change of seasons.

Kamaladevi Chattopadhyaya expressed:

"Out of a million coloured strands of tradition filled with song and verse, legends, myths, native romances and episodes, from the substance of the everyday life of the community, and out of nature's own rich storehouse, was woven a rich, creative and forceful art" (55).

The craftsman's position in the predominantly agricultural society was a prominent one for it made the village society self-contained, a characteristic of India through the long ages and which later inspired in Gandhiji the dream of "Sarvodaya"—a self-supporting community which stood for the good of all (56). The social functioning was based on a code of personal relations and duties handed down from generation to generation. A rigid adherence to the concept, that each man is born to his ordained work through the fulfillment of this 'Dharma'—duty to final 'Moksha'—liberation, provided the sanctions and the stability to this vast but well ordered system and ensured a high degree of perfection to the arts and crafts of India. The making of the craft was not just an economic compulsion but a sacred duty. This largely explains the very detailed care and devotion with the humblest work performed. The commonest articles were endowed with beauty, for, each task was a dedication.

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Sarvodaya, as the welfare of all, represents the ideal social order according to Gandhiji-In Harijan (4.17.1949) he explained that if the world adopts the two rules of self earning and productive labor, it will pave the path to Sarvodaya. (Sarvodaya (ed), Bharatan Kumarapha, Ahmedabad, Navajeevan Publishing House, 1954, p. 73).
By performing valid and fruitful social functions for the community, the Indian craftsman earned for himself, a certain status and responsible position in the society. He made things mainly for the use of the people around him. His work was evaluated not merely in terms of money, but rather, to entitle him to the necessities of life and leisure, and rest in sickness and old age. He was an heir to the people's tradition, and he wove them into his craft making it into an art. The bold local styles that the village artisans evolved operated as a great lever in the evolution of Indian art adding to the wealth and variety of color and design (57).

It was with this background that hereditary groups of every type of craftsmen arose, organized within the rigid systems and protected by rigid laws, which ensured the high standard and continuity of these crafts. The integration of creative endeavor for livelihood and the refusal to permit outer influence to loosely permeate and corrupt the unconscious process of renewal, lead to a great flowering of the craft tradition of India. Art and aesthetics were deeply rooted in function. When art ceased its functionality it became an artifact, an object of art but not art (58). Even ornamentation and decoration was not divorced from utility. Although the forms in a manner repeated themselves, they were free from initiative intention and each productive act was spontaneously linked with the stream of man's life and was a dynamic symbol of man's endeavor to express human emotions and interests (59).

These handicrafts express a great national heritage. While aesthetically fine, they were, nevertheless, essentially articles
of utility. Nothing was created to be kept as a dead piece (when it ceases its functionality of what it is made for) in a glass case to be merely looked at or to trumpet the affluence of the owner which is a recent practice of western art. Beauty was not an isolated item, it was an integral part of one's intimate life. Whatever the article in its functionality and use, no matter how mundane, it had to be beautiful. In other words—it is beautiful because it is in its full function. Decoration was not an end in itself. It had to serve a social purpose. Nothing was left to chance or the vagaries of the artist. Each move was worked out with care and precision (60).

Today, an idea is widespread that beauty is the prerogative of the rich alone, for it is believed that beautiful things (art, handicraft) are exclusive and beyond the reach of the ordinary men. The western influence crept into the Indian art scene since British reign. A modern involvement in art parallel to the western one is prevalent in cities like Bombay, Delhi, Madras and Calcutta. The traditional Indian art and handicrafts are still holding their grip in the villages without any strong outer influence from the modern art movements. The government of India under the Ministry of Education has established Lalit Kala Academies to promote both traditional and nontraditional art forms in India. Every state also maintains these academies to promote and preserve the rich cultural heritage of Indian art and handicrafts (61).

The government with the help of these academies conducts exhibitions and seminars, honors craftsmen and artists by awarding cash prizes,
national awards and honors like 'Padma Bhushan', 'Padma Shri' on the occasion of Republic Day celebrations, sanctioning small grants for the production of handicrafts, institutes fellowships and scholarships for the young artists to study art under a master artist or craftsman. There are regular art schools in every city imparting education in art and traditional crafts. Besides these schools, art is taught in several universities, out of which few of them concentrate on teaching traditional Indian art and crafts.

The government of India constituted a board called the all India Handicrafts Board and a commission called the Khadi Gramodyoga Commission for the promotion of Indian handicrafts and cottage industries to earn foreign exchange for the national development. It also commissions the artists and craftsman to decorate public buildings such as Parliament House, Rastrapati Bhavan, Secretariats etc.

In a recent curriculum for the Ten-year school position paper, the National Institute of Education under Ministry of Education, Government of India has recommended that:

"An area of personal expression is aesthetic activity. Interest in beauty and ability to discern it and integrate it into one's personality, together with other components of artistic experience, should be woven into the entire texture of educational activity. Ample

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4 Padma Bhushan, Padma Shri—are national awards. These awards are conferred on the occasion of Republic Day celebrations of the country on January, 26, every year. Bharata Ratna, the highest national award is given for exceptional work for the advancement of art, literature and science and in recognition of Public service of the highest order. The hierarchy of other awards is as follows—Padma Vibhushan, Padma Bhushan, Padma Shri (Directory and Year book, Times of India Press. Bombay, 1973, p. 173).
opportunity must be provided to each one to preserve and develop his originality and creative talents; make use of his gifts, aptitude and personal forms of expression" (62).

In this chapter, I have sketched the national setting in which any reconstruction of the role of art in the emerging field of Home Science will need to take place. I have also identified some of the unique resources available in such a reconstruction--resources that are deeply rooted in the folkways and traditions of Indian life. In the next chapter the study will turn to delineation of the theory base or rationale that this investigator proposes as a basic foundation for the reconceptualized role of art.
CHAPTER III
DEVELOPMENT OF THE RATIONALE

Basic Guidelines in Formulating a Rationale for Curriculum Development:

Education and its problems are important anywhere, but they are doubly so in India. This country is engaged in the difficult enterprise of building up a secular, democratic state. A pattern of just, honest, graceful and satisfying national existence is the nation's major goal. In India, education is really charged with the tremendous task of helping to create and to sustain this evolving pattern. It is, therefore, a matter of great concern to every citizen of India as to what ideas and principles inspire the education and how it contributes effectively to the growth of a truly democratic way of life. In so doing it must also provide for the full development of individuality, and succeed in harnessing harmoniously-developed individuality to social ends and purposes. In effect the development of productive individuals and the fostering of a democratic social orientation are the two fundamental guiding principles of Indian educational reconstruction as viewed by the national leaders. These principles permeate all education from the elementary school to the university level.

Dr. Zakir Hussain, an educationist, a statesman and a true Gandhian, in his address delivered in 1958 at the University of Lucknow, explained the nature of the educational process as follows:
"How is education or the culture of the mind possible? This process shows a striking resemblance to the process of the gradual development of the body. As the body, from its embryonic beginnings, grows and develops to its full stature by means of suitable and assimilable food, movement and exercise, in accordance with physical and chemical laws, so does the mind grow and develop from its original dispositions to the fulness of its power by means of mental food and exercise, according to the laws of mental growth. This mental food is supplied to the mind by the cultural goods of the society in which it is placed, by its material equipment, by its science, its literature, its arts, its technique, its religion, its customs, its morals and legal codes, its social forms, its personalities, and so on. These material and personal goods of culture are, all of them, the product of the mental effort of some individuals or group of individuals. They are objectifications of the human mind, with a significance, objective externalized facts with a meaning. They are the store-houses of the mental energy of their creators. The growing mind, unconsciously at first, more and more consciously later, takes hold of these cultural goods and uses them for its gradual development. When these goods of culture are so used, they become educative goods. They were first products of culture. They now become producers of culture" (63)

If the basic axiom of the educational process is the cultivation or education of the individual, then it is possible by means of these cultural riches and goods to attain mental growth and development.

According to Dr. Zakir Hussain, the "mental food" offered by goods of culture can give real nutrition to the mind only through what can be termed educationally productive work. He contends that educationally productive work is essentially the work of mind, sometimes accompanied by bodily activity. It is a disciplined, purposeful mental activity and tends to lead purpose to purpose.
As a matter of fact, intellectual work which is totally mental activity has grown out of the manual, which is the basis not only of all art but also of all science. What Gandhi, with his keen eye for the simple and essential, describes as the "Why and Wherefore" of craft work—is an indication that when he originated the idea of making handwork the vehicle of basic education, he did not have mechanical or manual work in view, but an educationally productive work. Gandhi in support of his basic education scheme said,

"All possible limitation of the material deals with, all possible extension of the opportunities for observations, creation and expression, all possible encouragement to learning by experimentation, to self-activity and to moral independence should characterize these schools if they are to be seats of education, i.e., of the cultivation of the mind, and not degenerate into just information shops" (64)

If productive work of the kind that Dr. Zakir Hussain advocated is essential for mental development and growth, its close association with the service of others is essential for man's moral and social growth. Work, therefore, be it manual or intellectual, if it is to be a real instrument of fashioning a good life—which in last instance, is the aim of educational activity—should be placed in the service of society if the artist or the scientist or the technician or the educator is to grow into a whole, and not fragmentary being. The true value of knowledge comes only when it functions. In the words of an English educator,

"Knowledge is idle in a community if it becomes the private possession of an esoteric coterie. Knowledge has redeeming and life-giving power only when it continually re-enters the life and work of the community" (65)
Alfred N. Whitehead, in his *Aims of Education*, supports this idea continuing,

"But for all your stimulation and guidance the creative impulse towards growth comes from within, and is intensely characteristic of the individual. Education is the guidance of the individual towards a comprehension of the art of life, and by the art of life, I mean the most complete achievement and varied activity expressing the potentialities of that living creature in the fact of its actual environment" (66).

These ideas and the visions of the so-called Humanists are very helpful bases for the further clarification of the concept of education and its nature. To pursue any reconstruction and development process, these bases serve as guidelines to give a meaning and direction to the undertaking.

Norman L. Bussiere and Thornton B. Monez identify, in their *The High School in Human Terms*, the following characteristics which support the underlying rationale for education:

- Autonomy and sensitivity to experience
- Open-endedness and responsibility
- Objectivity and Involvement
- Complexity and Perfection
- Spontaneity and Creativeness
- Integrity and Humaneness (67).

It is possible to make education a fulfillment for all pupils if proposed curriculum reconstruction takes into consideration the most significant human needs—needs related to self and the human condition. To achieve this kind of education pupils must learn to explore independently. It is equally important that they must be introduced to ethics and values (68). In effect, good education is not value free.
James B. Macdonald advocates the idea of self direction, self discipline and creativity in relating education to self and the human condition. He relates three sets of conditions to humaneness:

1. A priori conditions - an understanding of physical growth, nutrition, and genetic lack or psychological damage as essential for providing the background for development of human potential.

2. Social conditions - the framework by which the individual becomes human, but which are essentially closed in nature. Yet to develop his potential a person must be open as a condition for human development and transcendence.

3. Transcendent conditions - some potentiality of human experience beyond the present status of the individual (69).

Any humanistic approach to education should be focussed directly upon the creation of conditions for fostering the development of human beings. This should be its central intent and its basic value premise. J.B. Macdonald characterizes human persons as people who:

1. Are committed to the value and worth of each and every human being - as the central value of existence.

2. Are aware of potentiality which lies within themselves and the social, intellectual, physical, and emotional possibilities of their environment for furthering and creating potentiality.

3. Are aware of the possibility of transcending their present and social situations, and are skilled in the processes of seeking transcendence (70).
According to this curriculum theorist, man is a social being, and the society in which we are living is a basic referent for curriculum. This view is characteristic of a group of thoughtful critics of the current educational scene.

Advocating a "Sane School", Erick Fromm asserts that it should be characterized by diversity of goals, patterns, and opportunities - allowing all aspects of humaneness to develop. It should be characterized by an ethical concern for students, to be of service, to be just, to be authentic, and to be beautiful (physically and psychologically). It should be as concerned with processes and the uses of knowledge as it is with forms and content. It should be a vital living and fulfilling "continuum of experience" for students (?1).

Harry S. Broudy goes one step further in contending that economic, social and political democracy are the triple goals of social reform. To arouse enthusiasm for the "crusade" is the first business of the educational program (?2). See Figure 1. for illustrated relationship.

Philip H. Phenix, in his Realms of Meaning, suggests a clue in support of general education--an education for Humaneness. He is searching for "unity in the pattern of studies"--a unity in curriculum design and emphasizes that human beings are essentially creatures who have the power to experience meanings which distinguishes human beings from the animals. Distinctively human existence consists in a pattern of meanings, and education is the process of engendering essential meanings. Vocationalism in modern industrial society has threatened the system of meaning. He identifies four conditions where these meanings are threatened:
Figure 1. Diagram Showing the Relationship Between Education and the Triple Goals of Social Reform.
Rapid rate of change

1. Symbolics
   language mathematics

2. Empirics
   Sciences

3. Esthetics

4. Synnoetics
   direct, concrete personal knowledge

5. Ethics
   values, value-laden decisions

6. Synoptics
   comprehensively integrative meanings (history, religion, philosophy)

Overabundance

Destructive skepticism

Depersonalization and Fragmentation

Figure 2. A Visual Interpretation of Phenix's Six Realms of Meaning.
1. destructive skepticism
2. depersonalization and fragmentation
3. overabundance—things and information
4. rapid rate of change (73).

It is suggested that the curriculum should be planned to counteract these forces and to help the learner find meanings and self-fulfillment.

The diagram illustrates the six realms identified by Phenix in which various possibilities of significant experience are charted and the various domains of meaning are distinguished and correlated. He believes that particular social needs such as special vocational claims on education are more relevant to a curriculum of "specialized education" than to general education. With guided rediscovery, confrontation, dialogue, authentic teachers revealing themselves in the "search for meanings", it is possible to meet the challenge.

Although both Phenix and Broudy in their theoretical formulations for curriculum draw heavily on realms that clearly suggest self-realization and individual development in the affective domain, it should be noted that they also suggest curriculum experiences from realms that many observers now see as areas in which more specific competencies can be identified. For example, Phenix identifies "empirics" as one of his six realms and illustrates that with scientific competencies generated from study of several sciences. His "symbolics", as is true in Broudy's inclusion of language and mathematics as symbol systems, leads one to draw a similar conclusion that their proposals recognize the need for the development of rather specific competencies—at least, in these areas.
As one examines the field of curriculum there is clear evidence that general studies and vocational studies were conceived as separate tracks leading to separate life goals, the former preparation for liberal or professional higher education and the latter for those who lacked either the means or the skills for the former. The philosophical-theoretical position taken in this study and one that is consistent with the theoreticians cited above is that curriculum should be an "integrated system" where an educational experience helps a person to discover, define and refine his talents and use them in working towards a career. It is an opportunity for learning often in non-verbal ways, learning the relation between the educational program and the purpose and the nature of work. Insight into such a relationship involves the development of competencies for continuing growth and ability to work with, not merely alongside, but with others.

We can only learn what we experience, and we are only capable of knowing what we have learned. Our knowledge is therefore, restricted by our behavior. This relationship can be outlined as follows:

\[(\text{behavior}) \rightarrow (\text{experience}) \rightarrow (\text{learning}) \rightarrow (\text{knowledge}) \rightarrow (\text{behavior})\]

\[-(\text{which produces}) \rightarrow -(\text{which modifies}) \rightarrow -(\text{which makes possible}) \rightarrow -(\text{which in turn reinstates the cycle})\]

Figure 3. The Dynamic Cycle of Behavior, Experience Learning and Knowledge
This paradigm for describing the relationship between learning and lived-in experience in no way reflects a "behavioristic" stance toward learning theory. Rather, it demonstrates an integration of humanistic psychological bases for learning with what might be called a general "open systems" analysis of this complex relationship.

An educational program like any other activity, is directed by the expectations of certain outcomes. The chief activity of education is to change individuals in some way to fit in to a social system by adding to the knowledge they possess, and to enable them to perform skills which otherwise they would not perform, and to develop certain understandings, insights and appreciations. I have already delineated certain of the broad aims of education. It was also demonstrated that educational aims are related to the universal wants and needs of men and group of men, as created by the activities of life, education becomes more meaningful, functional, and dynamic. The general aims can be satisfied only if individuals acquire knowledge and skills, techniques and attitudes that fulfill these large purposes.

Educational aims have a variety of functions. The most important one is that of guiding decisions about the selection of content and of learning experiences and of providing criteria for "what", "when" and "how" to teach. A platform of desired outcomes (aims, objectives) supplies a criteria for making these decisions. Useful in generating an adequate conceptual framework to bring into focus these relationships is the theory of Mauritz Johnson. According to Johnson, curriculum is a structured series of intended learning outcomes. It relates to intention rather than occurrences. This definition asserts that experiences
that pupils have under the jurisdiction of a school become part of
the domain of instruction. Johnson identifies a six-point schema for
the curriculum which forms parameters for the field. They are:

1. curriculum is a structured series of intended learning
   outcomes.

2. selection is an essential aspect of curriculum formulation.

3. structure is an essential characteristic of curriculum.

4. curriculum guides instruction.

5. curriculum evaluation involves validation of both selection
   and structure.

6. curriculum is the criterion for instructional evaluation. (74).

The interrelationship of these six points (schema) is very well
illustrated in his model showing curriculum is an "output" of one
system (curriculum development) and "input" of another (Instructional).
This model is diagrammed as follows:

![Curriculum and Instruction Model](image)

*Figure 4(a). Curriculum and Instruction Model
Showing "Output" and "Input" Relationship.*
Objectives whether they are conceived by Phenix, Broudy or Johnson are the important value statements of what the learner is trying to accomplish or what the educational program is trying to achieve. These objectives are derived from the needs of the individual and the society. The nature of knowledge also comes into focus in this complex relationship between the individual and the needs of society.

A clear statement of objectives helps to select from vast areas of knowledge in the various disciplines that which is realistically necessary for valid outcomes. Furthermore, these objectives serve as a guide for evaluation of the achievement whether achieved in viewed as "process" or "product". The relationship between different components can be better illustrated with the following diagrams:

![Diagram of Input and Output](image)

Figure 4 (b). Relationship Between Different Components of Curriculum and Instruction.
The nature of these objectives and the ends sought are identified. Behavior is being used in the broad sense to include thinking, feeling, and acting. To attain these significant changes of behavior an organization or "structure in learning" is necessary. Without organization, learning experiences are isolated, chaotic and haphazard. Organization of learning experiences is an important phase of curriculum construction. Ralph W. Tyler identifies four major tasks in curriculum construction (75) which are illustrated in Figure 6.
The primary function of this organization is to relate the various learning experiences which together comprise the curriculum to produce the maximum cumulative effect in attaining the objectives of the educational program. As Tyler rightly felt that the extent to which the learning experiences within the program and outside the program, from one year to another, from a lower school to a higher school or one program to another need to be insightfully planned to provide effective organization. The quality of such planning is of importance for any theory which is to guide practice. He also identified three elements of learning experiences that are now used as a basis for the organization of learning experiences. They are;
1. Concepts which are being used as organizing elements to tie together the curriculum structure
2. Skills -- both vertical and horizontal organization
3. Values -- related to objectives such as the development of attitudes and interests (76).

In this triumvirate, concepts include the cognitive aspect of the curriculum as it is embraced in significant ideas inclusive of definitions, generalizations, principles and unifying or integrative words or phrases. Skills, as used, may embrace both a set of intellectual abilities involved in manipulating knowledge and relating it to actual problems, as well as those skills requiring some overt physical action or manipulation by the individual. Finally, values include those basic assumptions or points of view descriptive of the nature and purpose of man and his relationship with other men and with whatever Divinity in which he may believe.

The general function of "curriculum foundations" is to give perspective and a sense of relationship among all the elements and factors involved in the development of an educational program. It is reasonable for a foundation in curriculum to identify the critical issues or points in curriculum development and their underlying generalizations; to point out the relationships which exist between these critical points and their supporting structure, and to suggest and forecast the future approaches which may possibly be explored to resolve these issues. Tyler's rationale provides a significant way approaching this large, complex problem. As this investigator views the task, his proposal is not incompatible with the major theses
Analysis of the Problem:

Faced with two basic problems i.e. how to get education to adapt to changing times and how to make education more directly responsive to human needs, a systematic effort to plan a design would be in order. Indeed, this is the major focus of this study. Human efforts to build the future out of the present have been based on forward projections of the values of the past. The revolution of today, however, seeks values for the future and aims to create these values in anticipation of change. Social institutions are firmly embedded in their historical origins. Yet the mood of the day is to question the values of the past not as a serene, impartial academic exercise but as a search for betterment. Curriculum should be aimed not only as imparting a set body of facts or preparing for a specific job, but also at developing the unique potentials of each student along with appropriate accountability. Our analysis of (i) the individual and social needs of India and (ii) the underlying value positions of curriculum theorists upon which we have drawn leads clearly to four "value questions". The values that should permeate any educational program include respect for the individual, time for reflection, love of the arts and respect for the evidence that derives from inquiry.

The rapid advance in science and technology in India has created increased professional opportunities for technically-trained specialists. It is necessary to remember that these specialists are primarily human persons who have an obligation to live in and
contribute their best to the living society. In an attempt to prepare students for the wide variety of specialized competencies and skills with balance of ethics to participate fully in the reconstruction of society expected of home scientists, new courses and professional specialites are being added in the college curriculum. Home Science as a whole and in its various subject matter areas must:

1. Exercise selectivity in subject matter content at all levels, through defining precisely those intellectual ideas, concepts, and principles of the undergirding field of knowledge as well as its own, which are significant and appropriate for today and around which it proposes to organize its professional component.

2. Be willing to discard the obsolete, the unimportant, the minutiae; eliminate proliferation, duplication, and overapplication.

3. Find ways of integrating its knowledge, and relating and applying its principles and concepts to the problems which individuals and families confront.

4. Develop curricula at all levels of education that reflect a reasonable balance and interrelationship between general-liberal education and purely professional-technical specialization.

5. Liberalize the content of home science courses and recognize that professional courses taught with breadth and vision, can make an important contribution to the education of all university students.
These are the large, overarching goals that emerge from an analysis of "foundational sources". An effective conceptual framework must relate such goals to both curriculum theory and to the structure (broadly conceived) of the discipline of art and art-education.

Curriculum Goals and their Implication to Art in Home Science:

Home Science is an applied field of study. It draws upon fundamental knowledge in the basic sciences--physical, biological and social--as well as in the arts and humanities. Any applied field draws from research findings of its root disciplines, has the same research methods, and builds upon basic principles and concepts. In an applied field like this, concepts of the basic fields are used but also, new concepts with orientation to the special field will develop. In effect, new principles will arise; analysis leading to new synthesis of knowledge will emerge. For example: a subject area in Home Science like home furnishing will identify concepts primarily related to art, yet with pursuance of these ideas, an interrelationship with philosophy (integrity of design, aesthetic value), mathematics (symmetry, order) or physics and chemistry (color, light) becomes evident.

It may be reasonably assumed that the concept approach (identifying in different areas of Home Science such as child development and family relations, textiles and clothing construction, nutrition and food management, home management and equipment, home science education and extension, related arts) is one way of conceptualizing the "breadth-depth" problem in curriculum development.

Developing criteria for the selection of such concepts is a crucial aspect of the curriculum planning process. The
following qualities suggest appropriate criteria to use for the selection of concepts:

1. Significant, central, key
2. Transmittable through planned educational experiences
3. Based on or related to research
4. Useful in stimulating search for meaning and in encouraging further investigation.
5. Useful in interrelating facts and lower level concepts.
6. Useful in decision making
7. Directive, cumulative and integrative (?).

The two other concepts used in curriculum planning—skills and values as suggested by Tyler—need also to be considered along with cognitive concepts. However, no profession has ever been identifiable by values and skills alone. A body of knowledge, a set of skills, and a professional ethic must all be present if it is to serve the society and nation in the ways delineated in the previous discussion of the role such a professional field has in developing national goals.

With respect to this "professional" dimension of the curriculum development task, McGrath said,

"....curriculum planning efforts will be successful only upon the acceptance of the basic principle that the professional course of study ought to be a whole in which traditional liberal arts instruction and the technical courses related to a particular occupation are joined to provide the full relevant higher education appropriate to our times." (?)

Dressel has remarked that

"...there is interacting realization that the humanities and social sciences must be re-emphasized and that some undergirding of moral and spiritual values should result from higher education" (?).
This realization is reflected in recent literature in Home Science and in the interviews with students and faculty, all of which suggest a very definite shift in focus to the social and humanities based aspects of Home Science. There is more emphasis on a "humanistic" value orientation and on social responsibility, both within and outside of the family.

However, depth study in any one of the several areas of Home Science may lead to vocational or professional specializations. The specialized fields include foods and/or nutrition, clothing and textiles, or housing and interior design. In turn, each of these requires some acquaintance with the aspects of human development, management and decision making, family relationships. These common concerns suggest the breadth aspect within Home Science--the "core" or the unifying elements that tie each of these specialties to Home Science. Dedication to these common concerns makes the difference between the bio-chemist nutritionist and the home scientist nutritionist, between the fine arts or architect-interior designer and the Home Science interior decorator. It is these common concerns which define the profession.

In any truly professional field, there exists implicitly or explicitly a set of ethical considerations which describe, or delimit, the way in which the competent person operates in the field. Ideally, the Home Science nutritionist or Home Science clothing specialist, whether employed in the business world or in dietetics, or teaching, functions within a framework of ethical considerations or value orientations based on concern for the individual and family in our
society. By making explicit these ethical considerations and common concerns and inculcating a commitment to them, Home Science will remain a unified field, even though it embraces a number of increasingly distinctive specialities.

Close Examination of the Present Curriculum in Home Science:

In the 1960's, the establishment of agricultural universities on the pattern of U.S. land-grant colleges made Home Science an important area of studies. This system emphasized the integrated development of overall agriculture and home life. The first Home Science college (in agricultural university set up) started functioning in 1966 at the Punjab Agricultural University, preparing students for B.Sc. in Home Science. A curriculum was planned to impart training in child development, textiles and clothing, foods and nutrition, home management, home science education and extension, practical arts and applied science. In 1970-71, some modifications in the curriculum were made as the need arose to develop a post graduate program in related professions. Many faculty members were sent for additional training in the related areas under aid program. After their return, the faculty members contributed significantly to the modification of the existing curriculum and to the development of new programs for the betterment of the field in general.

During the past ten years, Haryana Agricultural University, G.B. Pant University of Agriculture and Technology, University of Udaipur, Andhra Pradesh Agricultural University have started Home Science programs in their universities more or less on the same pattern as the Punjab Agricultural University.
One fairly common pattern for the Home Science curriculum has been to try to balance the basic social sciences, and natural sciences, and to include five subject matter areas of home economics and some related art in a "core" of common requirements, with the balance of requirements both in Home Science and in related technical areas added according to the special major within Home Science. Professionally related arts and sciences are more logically a part of the professional component than of the nonprofessional, but we tend too often to count them general, or broadening, in balancing the curriculum. The fact that different fields of Home Science subject matter stem from the natural sciences, the social sciences, and the fine arts (and some would include the humanities) further complicates the problem of curriculum content.

Home Science in the present era may be regarded as made up of five relatively distinctive disciplines or groups of majors:

1. Nutrition and foods
2. Textiles and clothing
3. Home management and art and design
4. Child development and family relations

The distinctiveness of these several disciplines is reinforced by their dependence on different basic areas of knowledge. The specialist in nutrition or foods, requires, sound education in the physical and biological sciences. The specialist in textiles requires sound training in organic chemistry. The specialist in clothing needs sound training in design as does the individual working in the related
arts or housing. The field of child development, or family relations, requires knowledge of psychology and social sciences. If some unifying aspect is not evident in the curricular structure, there is then no satisfactory rationale for placing several professional specialists in a single unit labeled Home Science. As Jeannette A. Lee rightly pointed out

"Education for the several specialists might readily and perhaps better be related to the basic disciplines upon which the specialities depend" (80)

It is, however possible that the integration of diverse and distinctive fields in relation to the solution of individual and social problems requires more grounding than is possibly achievable at the undergraduate level and it may require the close cooperation of teams of specialists in the basic areas of knowledge rather than generalists who attempt to master them all. Richard A. Stull commenting on the technical proficiency or skill required for many specialities in college or university program said:

"It is clear that a man may be highly educated but totally without training. It is equally true that a man may be skillfully trained and at the same time uneducated".

He has further said:

"The reproach of the modern world—is that man is so busy in the acquisition of techniques that he often loses sight of the moral and social goals toward which such techniques may be used—(therefore, the aim of education is) knowledge with responsible techniques" (31).

During the first two years, the typical concentration in Home Science is more on basic sciences and humanities upon which Home Science is built. In later two years, besides the core curriculum of
Home Science, an opportunity is given to elect one of the five areas for greater breadth and depth in the field. Agriculture, animal science and fine arts courses are also included as compulsory courses in the present Home Science curriculum.

Although at present, art is being taught in some Home Science colleges of the agricultural universities in India, there is little emphasis on competency development for professional education. Such offerings are geared more towards a general education than toward an integrated approach in preparing a student for the professional career and personal development. Almost all the curricula in Home Science express the need of the study of art, and suggest that art and craft education should form an inbuilt program in all the areas of Home Science education so that art for utility and for developing aesthetic sense can be taught to achieve the designated aims of the Home Science program (32; 83; 84). This analysis of the state of the field underscores the importance of this study which aims to propose a curriculum framework which will confront directly the dilemma that characterizes the current role of art in the typical Home Science curriculum offerings.

The stated functions of art in the Home Science curriculum are to help the participants in achieving the goal of professional training in different areas of Home Science education. The objectives are stated broadly and the art in the present Home Science curriculum functions as a foundation course in a very general way to all the areas in Home Science.
Rationale for the Selection of New Goals and Objectives and Contents in Art for Home Science:

The major dilemma faced in developing a more adequate theory-base for art in Home Science was found to be that of synthesis of a rationale that will attend to personal, social, economical and cultural functions of art in India. Now I will set a framework for the development of this synthesis through examining the possibilities of the selection of specific competencies that are required for individual growth and professional expectations. This process will lead to selection of relevant goals, objectives and content in art experiences for the proposed art program in Home Science.

A competency may be defined as an attitude, behavior, skill or understanding demonstrated by a participant at a specified performance level (85). It is broad in scope. This investigator's approach to this concept is: (i) to identify some broad objectives of Home Science education in India particularly in an agricultural university; (ii) to set up and to select some appropriate competencies; and (iii) to formulate criteria for the achievement of specific objectives and directed outcomes in both general education and professional careers. This selection of appropriate competencies and criteria will serve as a basis for the construction of a "model" art program in the Home Science curriculum.

The model underlying this effort may be depicted diagrammatically as follows on the following page, figure 7(a).
Figure 7(a). Conceptual Cycle in a Curriculum Development Model

Figure 7(b). Referential Schema for the Assessment of Professional Competency.

Professional competency may be assessed by using three types of criteria:

1. Professional knowledge--facts, principles, generalizations,
awareness and sensitivities that the professional is expected to acquire.

2. Professional performance: behavior that the professional is expected to demonstrate.

3. Professional consequences: outcomes that the professional is expected to cope with in real career situations.

These professional competencies are illustrated in figure 7(b) model. In a criteria referenced professional education program, the trainee is expected to demonstrate the possession of specific knowledge, and to demonstrate the ability to perform specific behavioral acts. These behaviors are to be taken as evidence that certain skills or attitudes have been acquired and the ability to deal with the real situation.

There is no doubt that the competency-based professional education may be assessed using the above mentioned three types of criteria and can provide thereby accountability for the performance of the professional. But this investigator's attempt is to concentrate on the selection of competencies to develop the attitude, knowledge and skill to gain maximum in the professional career and growth of an individual rather than narrowing it to the minimum achievement level for the sake of accountability. In other words, giving the sole emphasis on competency-based professional training will lead any projected program to a badly fragmented education (86). The danger is that of fragmenting the professional act into small incremental parts destroying the whole purpose of humaneness of the prospective professional career. To think of an educational program (a professional training program) as
a means to a better life through which to achieve the reconstruction of the social order is to give emphasis to the humanistic approach to the curriculum.

Competency-based education is pictured as dehumanizing and depersonalized. The claim reflects the use of a system approach, a comprehensive prescription of competencies, and specified levels of performance for all. While each individual's program is personalized, initially the participant is quite dependent on the judgment of others on how best to match unique values and competencies to the professional training system. As the participant becomes increasingly professionalized, (this investigator's approach--it is not limited to the minimum level, but to the maximum ongoing level) she should be able to select from an array of professional competencies those which she feels are the most significant and pertinent to her as a human.

Humanistic values, insights, and knowledge are to be included in the system besides specified competencies and activities on valuing, feeling, self-perception and interpersonal functioning to humanize the competency-based professional education (87).

In effect, an "open system" is projected. This suggests an organic metaphor as contrasted with the typical "closed system" or "factory model" metaphor which has come to characterize most efforts to utilize competency-based approaches to curriculum planning.

Competency-based education which this investigator is talking about will identify objectives and content, like those of any curricular approach and will be responsive to student's values and life styles.
The training program will be closely attuned to the trainees' needs and feelings and at the same time be capable of economically feasible modifications for local levels.

The actions of the professional constitute an interrelationship between theoretical considerations and behavioral manifestations. The process includes 4 stages:

1. Goals and objectives are delineated and based on perceived needs.
2. Strategies for achieving goals and objectives are planned.
3. Plans for achieving goals and objectives are implemented.
4. The extent to which goals or objectives are achieved is evaluated.

This model can be applied to any professional action, whether it is teaching, self-development, or organizing for management. Each requires goal setting, planning, acting, and evaluating. Secondly, the cycle is completed quite rapidly while on other occasions it may require longer time and it is not time bound. Thirdly, evaluation leads back to goal and objective setting and speculating on whether any changes need to be made in the objectives, implementation strategies, or both.

This is a "scientific" approach in the best sense of the term, and is predicated on the grounds that when professionals systematically analyze important functions of their roles and evaluate the consequences of the actions, they are more likely to be effective.

The concepts underlying competency-based education as conceived in the proposed value framework of this investigator are relatively simple. Competency statements are derived from the role of the
practicing professional, explicitly stating what the learner is to
demonstrate for successful completion of the program and made public
in advance of instruction. While such competencies may include cogni-
tive objectives (what the prospective professional knows), the primary
emphasis is on performance (what the prospective professional can do),
and consequence objectives (what the effect of the prospective professional
is on his clients). It is more important that professionals be able
to practice their art, and to bring about positive change in clients,
than simply to know about professional actions (88). Within a competency-
based program, learner progress is contingent upon demonstrating
competencies. Assessment and instruction are derived from and linked
to competencies.

Thus, the total program is designed around statements of competen-
cies—competencies assumed to be integral to the role of professionals.

Competency-based education is a curriculum planning process that
emphasizes the relationship between curriculum and direct classroom
instruction. If curriculum cannot be translated into instructional
strategies, it is doomed to remain hollow rhetoric. The value of
a specific program depends largely on the care with which its
competencies have been identified and made explicit. Some institutions
have made extensive literature searches, worked with practicing pro-
fessionals, developed theoretical constructs, and finally designed an
integrated program. Some programs have carefully edited their
objectives and continued to improve assessment systems, and some are
committed to innovations.
The adaptation of this system to the educational system in India should not involve any problems as far as the basic principles are concerned. The competencies will be selected and specified by the professionals in that country for which the specific program is designed or innovated. The objectives will be identified and criteria will be established according to the needs of the participants in the program. If there is any difference to be seen it will be obvious in the objectives and in establishing criteria for the competencies for the achievement of the set objectives but not the principles or the model/design.

If the competencies can determine the effectiveness of professional programs in assessing the professional's job performance in U.S. the same will be true in any country if one is going to adapt the principles as the base for the assessment. This assessment of the case with which such national planning can be implemented is clearly based on (i) consensus about the underlying principles; (ii) leadership skills in helping faculties gain insight into practice. For example, educational competencies have conventionally been a primary focus for teachers; it is important to identify the basis for assessing professional abilities of all home scientists as related to their roles in the educative process and in their professional roles in agriculture, business, extension, health and welfare, research, cottage industries and other areas of family, community service. Statements of expected competencies will serve as guidelines for developing evaluative criteria related to the educative process. The experiences acquired in the real situation of the professional career provide
valuable behavioral evidence about the participant not only as to their cognitive skills, but also, in the domain of attitudes. Home Economics education in U.S. have delineated objectives, and generalizations in relation to selected concepts. These statements provide direction for identifying basic competencies essential to professional development of an individual.

The development of programs in Home Science in India to provide for the achievement of competencies will vary from institution to institution according to the objectives and resources available. Competencies serve as a basis for developing instructional strategies and the selection of instructional materials. It is anticipated that any problems which arise in this planning process such as the development of instructional strategies and the generation of adequate instructional materials can be met by redeploying resources into suitable in-service education programs. The program assumes a high level of educational leadership within each of the institutions. The pattern of attainment of competencies by individuals must be adaptable to varying requirements and specified expectations in employment. The primary arena for the development of competencies for the Home Economist is in the field; so it is also true with the Home Scientist in India.

No doubt, research will be needed to validate the criteria for measuring competency attainment, as specified by the AHEA. This should not inhibit pilot programs within the framework proposed in this study. In India research will be undertaken to validate the criteria identified for measuring competency attainment in Indian conditions as such pilot programs provide the appropriate data.
A model for the development of competency-based professional education based on the theoretical concepts explicated thus far (see figure 8 p.70).

Identification of structure of knowledge in terms of concepts and generalizations is important to the field of professional Home Science education for both the graduate and the undergraduate curriculum.

Objectives and generalizations are to be organized according to broad concept categories. One example of the selection of competencies in one of the areas of Home Economics in the U.S. and the parallel competencies which are selected under an Indian situation serves as a prototype of the proposed curriculum development process "in action" in a real situation as follows:

Overall competencies for students in the textiles and clothing major in Home Economics identified by the School of Home Economics at The Ohio State University (89) are:

1. Analyze and select clothing for self and others through application of the principles of design.
2. Make discriminating clothing construction choices through the use of compatible fabrics and construction techniques to produce garments appropriate for the individual.
3. Identify factors that influence clothing and textile choices at various stages of life.
4. Relate the influence of cultural ideologies on textiles and apparel.
5. Predict fabric performances and determine appropriate end use
OBJECTIVES


Validation Process

Figure 8. Program Innovation Model (adapted: AHEA Competency-Based Professional Education in Home Economics. Washington D.C., 1974, p. 6.)
of fabrics through application of knowledge of fiber, yarns, fabric structure and finishes on textile products.

6. Assure responsibility—for one's own continuous personal and professional growth.

All of these competencies are selected from broad categories like principles of design, functional aspects of design, values and choices, cultural influence, textile aesthetics, character development, responsibility and personal and professional growth.

When the model is adapted to the Indian situation for selecting the competencies for the students majoring in textiles and clothing at the college of Home Science in the Punjab Agricultural University the same principle categories can be used as a basis for the selection of competencies. Some competencies such as no. 2 and no. 4 would only require different learning activities and learning materials to suit the different culture and society, but the basic principles would be the same. Similar specific competencies in different areas of the Home Science program such as child development and family relations, home furnishing and management would demonstrate a similar relationship between the competencies characteristic of a curriculum in an institution in U.S.A. and a typical Indian institution. Food management and nutrition, home science education and extension, textiles and clothing construction would also help to identify and choose some specific competencies as a basis for the development of an appropriate art program within the Home Science curriculum suited to the needs of participants to attain the maximum level of specified goals of the personal as well as professional growth.
To trace the origin and function of art in the society and its place in daily life and home making, an anthropologist's approach to art is useful. Art, he might assert, is both a type of technology and a type of behavior. It serves as a cohesive force in culture, recording experiences, communicating information, perpetuating tradition, displaying wealth, entertaining the community, invoking gods and departed spirits, protecting individuals against illness and catastrophe, building courage in war, promoting fertility, averting death in childbirth, renewing the life of the departed, facilitating passage from one human condition to another. This explanation of what is functioning as "art" in society is derived from the anthropologists' analysis of the artifacts a primitive group typically created. Feldman observes:

"In many societies, art is still taught as if it were an adornment of gracious living rather than an essential expression of human spirit. From the viewpoint of primitive art, we are afflicted on our culture by a separation of art from life. Anthropology clearly demonstrates that in those primitive cultures where art is integral or continuous with living, it is created because of genuine personal and social urgencies. The occasions are not manufactured, they are presented by the recurring crises and opportunities of daily life. These findings help us to locate the idea and function of art at the center of life rather than its periphery" (90).

This will also help as a clue for an art educator to establish a rationale for any program in the study of art.

With the foregoing (i) explication of a competency-based curriculum theory; (ii) the identification of prototypical analysis of competencies within the field of Home Science; and (iii) a preliminary statement of the nature of art as viewed from an
anthropological perspective, this study now moves to an examination of yet one other basic "input" into the curriculum development process—namely, an analysis of art "content" conceived as competencies. This analysis is the focus of the next chapter.
CHAPTER IV
DEVELOPMENT OF ART PROGRAM

This chapter presents a prototype for translating the theoretical base generated thus far in this study into a practical program within an institutional setting. It provides thereby a link between theory and practice.

Selection of Relevant Objectives:

To develop a program in art appropriate for the Home Science curriculum based on the conceptual framework proposed in the preceding chapters it is necessary to examine and analyze the objectives of the total program. This analysis will enable the investigator to identify the areas wherein art courses can be developed and introduced to achieve the stated objectives.

If Home Science is the field of knowledge and service primarily concerned with strengthening family life through, (i) educating the individual for family living, (ii) improving the services and goods used by the family, (iii) conducting research to discover the changing needs of individuals and family and the means of satisfying these needs, and (iv) furthering community, national and world conditions favorable to family living, then the study of art is clearly indispensable in any Home Science Curriculum.

Home Science synthesizes knowledge drawn from the physical, biological and social sciences and the arts, and applies this
knowledge in improving the lives of families and individuals. Its concern is mainly with the following aspects of family living:

1. Family relationship and child development.
2. Consumption and other economic aspects of personal and family living.
3. Nutritional needs and selection, preparation, presentation and use of food.
5. Textiles for clothing and for the home.
6. Housing, equipment and furnishing for the family.
7. Housing as an integral part of everyday life.
8. Management in the use of resources so that values and goals of the individual, the family and of society may be attained. (91).

Since Home Science is concerned with the home and the family as they exist in society, its content and emphasis must be constantly based on the existing culture and the social, economic, educational and technological developments which influence the family and its members. In all aspects of work such as teaching, research and extension the aim of Home Science evaluation is to help individuals and families to develop competencies fundamental to effective living through:

1. Establishing values which give meaning to personal, family and community living; select goals appropriate to these values,
2. Creating a home and a community environment conducive to the healthy growth and development of all members of the family at all stages of the family cycle,

3. Achieving good interpersonal relationships within the home and community,

4. Nurturing the young and foster their physical, mental and social growth and development,

5. Making and carrying out intellectual decisions regarding the use of personal, family and community resources,

6. Establishing long-range goals for financial security and work toward their achievement,

7. Planning consumptions of goods and services, including food, clothing and housing in ways that will promote values and goals established by the family,

8. Purchasing consumer goods and services appropriate to an overall consumption plan and wise use of economic resources,

9. Performing the tasks of maintaining a home in such a way that they will contribute effectively to furthering individual and family goals,

10. Enriching personal and family life through the arts and humanities and through refreshing and creative use of leisure.

11. Developing mutual understanding and appreciation of different cultures and ways of living, and cooperate with people of other cultures who are striving to raise levels
of living (92).

The instructional program for Home Science students in the Punjab Agricultural University based on the competencies delineated above has the further programmatic goals:

a. Personal development - understanding self and others and relationship to the culture.

b. Preparation for effective citizenship and community participation.

c. Preparation for professions and careers in Home Science - such as in education, business, industry, social welfare.

d. An opportunity for intensive research related to home and family life which can be conveyed to all levels of society.

(93).

The curriculum theory model generated in this study can now serve to bring together in some valid relationship: (i) the overall statement of competencies in Home Science; (ii) the programatic outcomes that characterize Home Science in Punjab Agricultural University; and (iii) the yet-to-be identified domains of the field of art. The model for accomplishing this complex task may be diagrammed as follows on the next page, figure 9.
Figure 9. A Model for Curriculum Development

---indicates the extension of stated limits into an open space.
Figure 10. A Conceptualized Diagram Showing Relationship Between Identified Disciplines and Related Areas in Home Science
No curriculum model is effective if it remains only on a theoretical level. Consequently, it is crucial that it be translated into practice. The following program development model identifies the operations involved in such a translation of theory into practice in an institutional setting:

Establish Procedures for Program development

1. Rationale-state broad goals of the program including mission statements

2. Generalization of Activities (categories)—Select and organize concepts, generalization and supporting information believed to help learner attain broad goals (above)

3. Objectives—Translate generalizations into instructional objectives

4. Course content—Select and Organize instructional materials through which learner will attain the objectives

5. Instruction—Put the organized instructional materials into practice

6. Evaluation—Develop program for systematic evaluation of learner's progress, curriculum, instruction and administration (management) of the program

Figure 11. A Model for Program Development (adapted: A Strategy for Program Development and Evaluation in Home Economics, American Vocational Association, Washington, D.C. 1973, p. 29)
The present curriculum of the college of Home Science as of 1976, provides for the general or liberal education of the student as a person, a citizen and family member first and for the training of the student for a variety of professional opportunities (94).

Qualified professional graduates are needed in the field of education as teachers of young children, teachers of Home Science in secondary schools and colleges, Home Science extension workers and research. In the fields of foods and nutrition there is a great need for dietitians, food science directors, school lunch supervisors, food processing technicians, social workers and child welfare personnel, consultants and supervisors. Home Scientists pursue careers in fashion, journalism, and advertising, interior design, family guidance, clothing and textiles, furnishing and equipment, etc. The curriculum in Home Science should meet this challenge of preparing students for different professions stating the purposes and developing programs to achieve those stated objectives. The stated objectives of the Home Science curriculum at the Punjab Agricultural University are as follows:

1. To convey a clear concept of contemporary family living in complex and ever changing society.

2. To develop better understanding of Home Science and home making concepts.

3. To promote the function of better self realization and further personal development.

4. To provide a course of instruction based on the needs of
women in India.

5. To provide a program of study in the areas of child development, family environment and home management, foods and nutrition, home science education and extension, textiles and clothing, and applied art.

6. To provide adequate general or liberal education for the students to become responsible citizens in the home, community and nation.

7. To encourage further study either for graduate degrees, professional and/or personal enrichment (95).

Most of these objectives suggest the need for the study of art and aesthetic knowledge and thus the development of an appropriate art program in achieving those objectives is in order.

It is necessary to coordinate with all the five areas of Home Science to see that the activities in art, developed on the basis of abilities and competencies specified by the different departmental programs are offered to achieve the best results. These courses will be offered through a division namely Art and Design in the department of home management of the College of Home Science.

This unit in the college will be concerned with aesthetic expression and response. Art recognizes that every individual needs creative expression and aesthetic response for personal fulfillment. The objectives will be drawn emphasizing the second aspect—the extrinsic values of art experiences to be seen through the competency-based professional training to attain the fulfillment.
Emphasis will also be placed on investigating visual relationships and design as a visual language—a strategy through which visual sensitivity can be developed. Instruction and research in areas of interior design, decoration, apparel design and decoration and decorative arts will be planned and will be mutually supportive in the study of man's interaction with his immediate environmental surroundings and situations. The art contents will be identified and developed as course units on the basis of theory evolved in the previous chapter to attend to both the personal-social dimension of art experiences. The study of these courses will provide background for effective leadership which contributes to the quality of human life.

The courses in Art under this proposed Art program for Home Science Curriculum are identified in two categories: (i) General Art Courses, (ii) Elective Art Courses. The general art courses are designed to be offered at undergraduate level for those who are taking Home Science general program and elective art courses for students majoring in different areas of Home Science at undergraduate and graduate levels.

Selected Art education goals for the development of General Art Courses for Home Science curriculum are derived from the ideas of the following Art Educators:

Dr. A. Efland contends that the goals for art education should have three principal characteristics:

1. they should be consistent with those of general education,
2. they should reflect the theoretical and philosophical
According to Barkan, Chapman and Kern the goals of aesthetic education should be:

a. to encourage personal development,

b. to transmit the cultural heritage,

c. to maintain and transform the society (97).

They also stated that the relationship among these three goals should provide the context in which education in arts and crafts should take place.

Chapman, in her paper, "Curriculum Planning for Art Education", suggested three major goals for art education which are derived from those of general education:

1. personal response and expression,

2. awareness of the artistic heritage,

3. awareness of the role of art in society (98).

If the functions of general education are to encourage personal fulfillment, transmit the cultural heritage, and improve the social order, the major goals for education in arts and crafts are consistent with personal, social and cultural dimensions.

The foregoing very brief review of the curriculum literature spells out the goals of education in arts and crafts as being derived from and related to those of general education. Also, it is evident that these goals reflect the functions of the schools in the society. A synthesis of such goals serves as a broad base for the more specific objectives.
The objectives of the proposed art program as based on the involvement of the taxonomic domains in varying measures or ratios are:

1. To develop visual sensitivity
2. To develop good taste
3. To provide individuals with opportunities to develop power to express ideas, feelings and to give form to their environment
4. To build skills and the critical thinking necessary to express in a variety of art media
5. To develop the power of perception in order to respond sensitively to works of art and the environment
6. To develop the appreciation of the relation of art to human behavior.

All these objectives serve to achieve mainly: (i) personal development, (ii) attainment of social order, (iii) synthesis of (i) and (ii) in transmitting cultural heritage. The objective numbers one and five are drawn to provide the possible intrinsic values of art experiences for the personal development through designing selected general courses, and objective numbers two and four are drawn to provide the possible extrinsic values of art experiences which will help the students to gain mastery (competency) required in their various careers through designing selected elective courses. The objective number three and six are drawn to train the students in providing adequate directions in the practical problems through choosing the courses in electives. The program plan needs to be flexible to allow for individual needs and to permit work in
supporting related disciplines.

Proposed Course Outlines in Art:

To fulfill the general and the specific objectives, identified thus far, a number of prototypical courses are projected.

General Art Courses:
The following courses are outlined as foundation art experiences to serve the broad-based objectives of general education for Home Science students.

Course — Art and design - 3 credit hours

Emphasis on the development of an awareness of design, an appreciation of beauty and an intelligent standard for good taste, study of art elements, and principles in relation to the individual's environment. Use of various media for the development of visual sensitivity. Focus on local, regional and national art and crafts.

Course — Introductory studio art - 3 credit hours

Two dimensional design and color theory, interpretive drawing, object and figure, three dimensional design. Emphasis will be given to the artistic sources of cultural background of the region.

Course — Introduction to art history - 3 credit hours

A survey of prehistoric through medieveal art, heritage of Indian Art, renaissance and baroque art, nineteenth and twentieth century art. Emphasis will be given to relate art history to the art sources available at regional and national level.

Course — Art appreciation and criticism - 3 credit hours

Our art heritage - a source of art expression in our immediate environment with emphasis on organizational structure of art forms, some thoughts on responding to art forms.

Elective Courses in Art:
The following courses are outlines for Home Science students majoring in different areas of Home Science, both undergraduate and graduate level.
Home Science - Textiles and clothing major:

Textiles and clothing construction in Home Science curriculum emphasizes the creative ability in students in finding outlets for and attaining skill in self expression. Some of the objectives spell out the need for art experiences for those who specialize in this area of study. While framing the electives for these students, the following criteria are considered in suggesting the appropriate art experiences:

(i) knowledge of fashion and design as factors in selecting clothing and textiles suitable for function,

(ii) ability to apply the fundamental principles of clothing design, construction, care and upkeep in solving clothing problems for one's self and others,

(iii) understanding of art principles in relation to design of fabrics and costume and fundamentals of fashion, together with the development of high degree of skill in designing and constructing garments and accessories in a variety of materials,

(iv) studying the differences between imitations and poor adaptations on the one hand and good quality design on the other,

(v) judging quality of designs, material and workmanship in relation to cost.

Course -- Drawing - 3 credit hours

Concentration on the development of visual sensitivity through drawing with various media of local and regional significance.

Course -- Costume design - 3 credit hours

Development of original designs for clothing and execution of students' own designs through drawing and pattern development.

Course -- Decorative fabrics - 3 credit hours

Study of historic and contemporary fabrics with analysis of designs and techniques of decoration in fabrics—the contribution of decorative fabrics to the enrichment of human experience.
Course -- Structural design and weaving - 3 credit hours (studio)
Involving experiences in weaving and other structural techniques

Course -- Fashion illustration* - 3 credit hours (studio/projects)
Problems in graphic techniques, fashion illustration, contemporary fashion design and advertising presentation

Course -- Applied textile design - 3 credit hours (studio/projects)
Creative two dimensional design in block print, batik and sreennon print media

Course -- Thesis* (art) - 3 to 15 credit hours
Studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, process and ideas that form the correct understanding and experience of the student's major field. (Open to textiles and clothing and home management majors only).

Course -- Seminar in design* - 3 credit hours
Group or individual investigation and experience in the various ideas, media and techniques in the field of design.

Home Science - Child development major:
Some of the objectives listed below can be achieved through the selected art experiences proposed in the elective course units for those who are majoring in the child development.

(i) understanding of the influence of the home - its arrangement, utilization and care,

(ii) appreciation of the home and its operation as related to family development,

(iii) appreciation of the role of the family in our culture,

(iv) ability to plan and carry out an educational program for preschool children and to demonstrate skill in using children's literature, music, art and play activities in child guidance.

* courses are recommended for specialization/graduate study and research
Course -- Introduction to art education in schools - 3 credit hours

Children's art, growth and development, objectives, motivation, evaluation, experiences with school art media. Pre-school art activities.

Course -- Creative activities for young children - 3 credit hours

Curriculum, methods and materials related to music, art and creative movement (dance) activities for the young child.

Course -- The human habitat - 3 credit hours

The relationship of space, equipment and aesthetic and cultural aspects to human habitat - human ecology.

Course -- Creative expression in contemporary crafts - 3 credit hours

The contribution of historical background of creative expression in contemporary crafts. The societal role of the craftsman as teacher, craftsman and industrial designer.

Course -- Designing arts and crafts and activities for the school program - 3 credit hours

Creative use of clay, wood, paper, metal, wire, fabric, leather and other materials

Course -- Seminar on aesthetics * - 3 credit hours

Based on study of statements by philosophers on art - implications of aesthetics on contemporary philosophy of art and art education

Home Science - Family environment and home management major:

Students who are specializing in this area of Home Science are dealing mostly with the space, environment and its management in every-day life. These students need experiences in house furnishing including the study of the functional and aesthetic qualities of the designs of the furniture, rug, draperies and decorative objects, household textiles. A thorough grounding in art, including color, line, design and history and psychology of art is essential, as well as the manipulative skills in a few art media. Understanding of
domestic architecture, house plans and landscaping for creating a suitable environment is also necessary. The following objectives are kept in view to meet these requirements:

(i) understanding of art principles and ability to make practical application of them,

(ii) understanding the historical background of art as an expression of the aesthetic ideal of a given period and its relation to the present development in art forms,

(iii) desire to improve aesthetic appreciations and practices of individuals, families and the community,

(iv) cultivating appreciation of the relation of art to human behavior,

(v) developing creative ability and the necessary skills to express such ability.

Course — Housing and interior design — 3 credit hours

Analysis and planning of housing and the application of design principles and elements to the interior

Course — Interior design* (advanced) — 3 credit hours

Problems involving the design selection and arrangement of furnishings for living and working quarters — development of ideas for interior decoration

Course — Interior sketching — 3 credit hours

Varied techniques in rendering interiors, design and color application to exteriors and interiors. Professional presentation of theoretical problems in domestic interiors

Course — Home crafts — 3 credit hours

Instruction in crafts and accessories for the home, including: draperies, curtains, floor decoration, festival decorations, covers for chairs and tables lamp shades, oed spreads, rugs and needlepoint, flower arrangements.

Course — Professional interior design procedures* — 3 credit hours

Written specifications, cost of materials and general procedures for interior designers
Course -- Seminar on aesthetics * - 3 credit hours

Based on study of statements by philosophers on art. Contemporary philosophers of art and art criticism

Course -- Furniture design * - 3 credit hours

Study of structural design for furniture, functional and aesthetic materials values in furniture design. Study of the history of furniture, design and values of different periods such as victorian, renaissance, baroque and modern. Study of oriental furniture styles in rural homes in India, and comparison between styles in rural homes in India and art nouveau styles. Development of simple designs for simple furniture with relation to different materials.

Course -- Thesis * (art) - 3 to 15 credit hours

Studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, process and ideas that form the correct understanding and experience of the student's major field. (Open to textiles and clothing and home management majors only).

Home Science - Education and extension major:

Study in the various subject-matter areas of Home Science should provide experience and practice to develop the attitudes, understanding, appreciation skills and habits necessary to assist both individuals and families with home making problems. Developing skills in meeting the social, emotional and physical needs of a family and developing a sound philosophy of education and Home Science are the criteria considered for the selection of the following art experiences:

Course -- Introduction to art education in schools - 3 credit hours

Children's art growth and development, objectives, motivation, evaluation, experiences with school art media. Pre-school art activities.

Course -- Creative activities for young children - 3 credit hours

Curriculum, methods and materials related to music, art and creative movement (dance) activities for the young child
Course -- Drawing, painting and design activities in the elementary school - 3 credit hours

A laboratory course exploring the areas of drawing, painting, and design activities in the elementary school.

Course -- Drawing, painting and design activities in the junior and senior high school* - 3 credit hours

A laboratory course exploring the areas of design representation, and paintings as means of expression employed by the children of the intermediate grades and junior high school.

Course -- Crafts for elementary and junior high school - 3 credit hours

Developing programs in various crafts for school - block print, paper mache, paper printing, screen printing, soft toys, cardboard, felt, wire, leather and ceramic work, floor decoration, stenciling - etc.

Course -- Design and construction of teaching aids for art in the school and for extension work - 3 credit hours

Preparation of teaching aids, charts, models, exhibits graphics, for the use of teaching and extension work.

Course -- Seminar in art education * - 3 credit hours

Presents a continuum in theoretical experience and professional growth of the art specialist.

Course -- Techniques of art appreciation and criticism * - 3 credit hours

An inquiry into alternative modes of analyzing, interpreting and evaluating works of art. The construction of art appreciation curricula, critical techniques as employed in classroom teaching strategy.

Home Science - Food and nutrition major:

A study of food composition and body utilization of food in an important part of preparation of students in this area of specialization. Students are required to know how to care for food and be able to practice sanitary procedures. Equally important is the ability to plan space arrangement, selection and use of equipment and materials.
in the preparation of food and its presentation. The art experiences
provided under electives recommended for these students meet this
specific objective.

Course -- The human habitat - 3 credit hours

The relationship of space, equipment and aesthetics and cultural
aspects to human habitat, human ecology

Course -- Housing and interior design - 3 credit hours

Analysis and planning of housing and the application of design
principles and elements to the interior

Course -- A seminar on aesthetics * 3 credit hours

Based on study of statements by philosophers on art. Contemporary
philosophy of art and art activities and criticism.

Course -- Cultural aspects of food * - 3 credit hours

Sociological and aesthetic roles of food in cultural context.
The presentation of food in different cultures

With a basic background in Home Science, the students may have an
option of majoring in applied art with a minor in one of the areas of
Home Science. The different areas of specialization in applied art
may include advertising design, art education, craft design, interior
design, fashion design/costume design, decorative textile design,
structural design of textiles, history of textiles, decoration and
costumes, decorative art and museum display, housing aesthetics,
environmental aesthetics, and general design.

A proposal for the Implementation of the Program:

Curriculum innovations for art in Home Science in the agricultural
universities in India are called for because of the rapid change in
social, economical and political life in India. Theorizing about
curriculum improvement and innovation, R.W. Crary stated, "...curriculum development is a social process" (99). As society changes, new and pragmatic changes need to be made in any educational program to be consistent with the needs of the society. The mood of the day is to question the values of the past not as a serene, impartial academic exercise but as a search for clear direction in the social realm.

Implementing this study is not beyond the comprehension and ability of the administrators and teachers or the students. It only calls for a clear understanding and readiness to adapt and willingness to adjust or re-do the things that are in practice now to keep pace with the change and emerging new needs. The proposed program has built into it opportunities for identifying these new needs and translating them into improved curricular practices.

Any change in the curriculum in the agricultural universities in India starts from grass roots. The proposal, on what is to be changed, added or deleted in the existing program in a particular area is initiated by the teacher or specialist who teaches the subject. The innovation proposed by the teacher is discussed by the faculty of the department. This discussion centers on an identification of the objectives, abilities, and competencies expected at the end of the program, and the interrelationships of the subject with allied areas are clarified. The proposals which emerge are discussed in the Board of Studies of the college of Home Science and then finally approved by the Academic Council of the agricultural university. To implement the proposed art program in Home Science curriculum of the Punjab
Agricultural University in India, the same procedure will be followed for the approval of the proposal by the concerned offices.

To put this program into practice in the College of Home Science at Punjab Agricultural University, an overall plan of organization will be formulated. The following three large problem areas crucial to implementation of the proposed curriculum plan would be worked out in detail in collaboration with the institution concerned:

A. Service
   1. Interdepartmental coordination, within the college
   2. Interdepartmental coordination within the university.
   3. Service to the community.

B. Physical facilities
   1. Budget
   2. Teaching faculty
   3. Staff
   4. Studio space
   5. Equipment

C. Instructional materials
   1. Books and reading materials
   2. Teaching aids
   3. Local resources
CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

Summary:

In concluding this study, this investigator wishes to point out that the Home Science curriculum in agricultural universities in India is intended to give a meaningful education for women and thereby enrich the family and social life which contributes to the national dignity, a major resource as a nation moves ahead. The major goal of Home Science is abundant living, sometimes defined as "highest happiness". Home Science education builds the character, ensures happiness and influences the individual and community for better living. In order to achieve these lofty ends it uses the knowledge and applications from various arts and sciences. This, then, is the large value "gestalt" in which this study has been set.

In this study it is recognized that the study of art is essential and relevant in the Home Science curriculum to achieve the stated goals of that field. Although almost all the curricula in Home Science imply the need for the study of art, no genuinely effective program in art is offered in the Home Science college at present.

This study formulated a rationale for the study of art in Home Science curriculum and has translated this rationale into prototypical courses which might serve as models for those involved in the complex curriculum development processes.
In reviewing the stated goals of the Home Science colleges in agricultural universities in India and relating these goals to the educational program, it was found that the study of art in Home Science curriculum needed to be reorganized into a program appropriate to fulfill the goals and objectives of the educational programs offered by the college and to meet the needs of the students. This study has resulted in the proposed art program which has been designed to meet the present needs of the Home Science students in their professional careers. The objectives for this proposed program in art have been derived from the stated goals of the Home Science and from the identified abilities and competencies required for a happy home-living in general and the specific professions in various fields of Home Science in particular. The courses have been developed to attain those objectives selected on the basis of the required abilities and competencies for different aspects of home-living and various careers.

The proposed art program is to be tried out or initially demonstrated on a pilot basis at some of the Home Science colleges in agricultural universities in India. It is hoped that the proposed program will be implemented first in the Punjab Agricultural University Ludhiana. Thereafter having demonstrated its values it may be accepted by the other agricultural universities in the country. The dissemination of curricular ideas that develop in such a pilot effort clearly require agencies and mechanisms designed to further such adaptation in other situations.
The development of this program has emerged from the diagnosis of India's need for a more appropriate education for women today. The analysis of many effective programs and research efforts in both developed and developing countries were drawn upon as foundational bases. While developing this program, consideration has been given (i) to the philosophical psychological and emotional aspects (ii) to the theory of curriculum development using the six major categories identified by Rayland W. Crary namely, an appraisal of academic realities, the establishment of philosophical roots, historical analysis, an examination of social bases, derivation and application of methodology, and sound production choices (100), and (iii) to the sensitivity to and the acceptance of current legitimate political pressures--local, regional and national.

From these curriculum development categories, a new synthesis was generated. This synthesis serves as a framework for the proposed program in Home Science curriculum in agricultural universities in India. The contribution to knowledge is thus what is commonly called "middle-range theory". This is to say that a new set of guidelines for practical curriculum development efforts has been generated. Clearly, these guidelines need to be "tested out" in real field situations.

Implication for Art Education:

The acceptance and implementation of the proposed art program for Home Science curriculum will extend art education from school to college level. This study will also set a precedent in India for
exploring possibilities of developing appropriate programs in art education at the college and higher education institutions offering different programs such as industrial arts, technology, engineering, city planning and architecture, journalism and communication, film and advertisement.

One of the most pressing needs to follow up and extend this study is research into the educational needs of women in the developing India.

A second major need is that of developing appropriate agencies and mechanisms for disseminating the results of the pilot program at the Punjab Agricultural University.

A third need, as is true in the case of most curriculum development efforts, is that of developing more adequate evaluation procedures not only for the specific courses proposed in this study but also for the curriculum development effort as a whole.
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