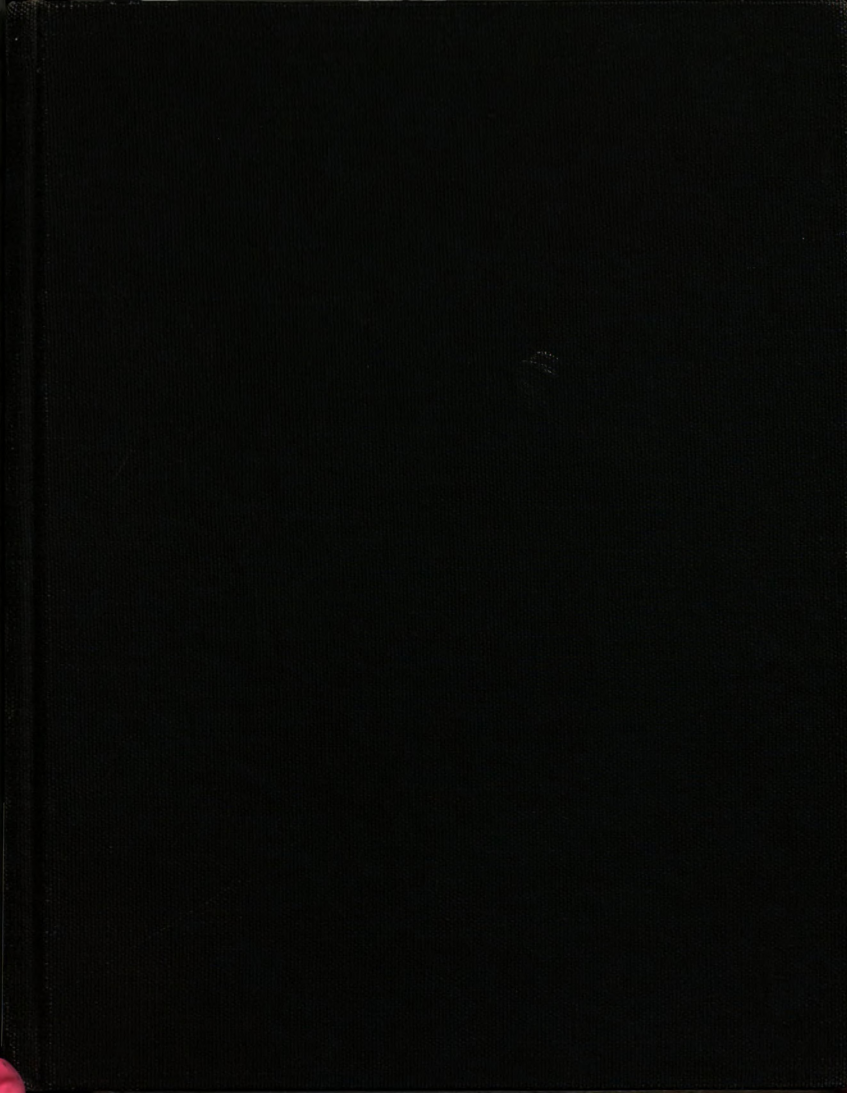
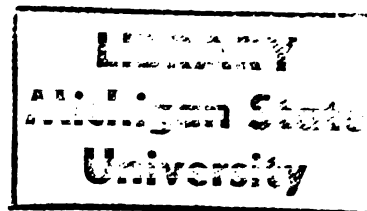






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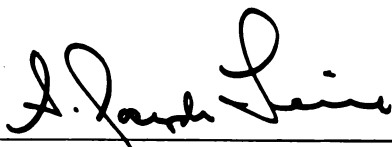
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THE ACTUAL AND PREFERRED LEARNING ACTIVITIES
OF EXTENSION HOME ECONOMISTS AND THEIR RELATIONSHIP TO THE
ACQUISITION OF PROFESSIONAL SKILLS AND KNOWLEDGE

BY

DORIS BRICKMAN RICHARDSON

DISSERTATION

SUBMITTED TO MICHIGAN STATE UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

1986

ABSTRACT

THE ACTUAL AND PREFERRED LEARNING ACTIVITIES
OF EXTENSION HOME ECONOMISTS AND THEIR RELATIONSHIP TO THE
ACQUISITION OF PROFESSIONAL SKILLS AND KNOWLEDGE

BY
DORIS BRICKMAN RICHARDSON

The purpose of this study was to explore the learning activities which Michigan Cooperative Extension Services Extension Home Economists use for the acquisition of their professional skills. The primary focus was to investigate the relationship of both self-directed learning and formal learning to the acquisition of their professional skills and knowledge. A secondary, but also important focus was to describe the types of learning which are preferred by the Extension Home Economists and also the reasons for these preferences.

The sample of twelve subjects was selected from a population of forty-four Extension Home Economists who met the criteria of the study. They were interviewed and asked to respond to four areas of inquiry: 1) types of learning currently utilized; 2) preferences for learning professional skills; 3) relationships between skill area and type of preferred learning; and 4) types of support identified as important for future learning. The interview data were subjected to multiple comparative analyses consistent with grounded theory methodology.

The findings of this study resulted in four conclusions.

First, if in fact, Extension Home Economists are learning seventy-five percent of their professional skills in a self-directed manner, resource agencies that are attempting to serve their learning needs should carefully reexamine their role and look for ways to assist them in their learning and at the same time, allow them to retain this self-directedness. Second, if Extension Home Economists prefer to learn certain skills in a specific manner, training through a variety of methods as well as in a variety of topics must be offered. Third, formalized training is not an efficient use of time and money as a learning vehicle for all the professional skills of this population. Fourth, Extension Home Economists are capable of defining the support that is necessary for their future learning needs and should be asked for their input in its planning and execution.

Praise God, from whom all blessing flow;
Praise Him, all creatures here below;
Praise Him above, ye heavenly host;
Praise Father, Son, and Holy Ghost.

SOLI DEO GLORIA!

ACKNOWLEDGEMENTS

My sincere thanks are extended to S. Joseph Levine, the Chairman of my doctoral committee, who so graciously undertook the supervision of my work after the retirement of Fred Peabody. Dr. Levine contributed countless hours to encouraging the perfection of the finished work. My appreciation is also extended to the other members of my committee, Marylee Davis, Robert Richards and Carroll Wamhoff whose questions and suggestions were most helpful in the completion of this study.

My appreciation is extended to the Extension Home Economists who were willing to participate in such a free and open way.

My thanks are extended to Delilah Bennett for her assistance in preparing the manuscript. She exhibited a tremendous amount of patience from beginning to end.

Many sincere thanks are extended to my very special friends, Charlotte Anton and Michael Anton, for their unconditional love and support during the many stressful moments.

An immeasurable amount of thanks and appreciation are extended to my husband, Bart and my son, Ben who were willing to give up many hours of family time. Without their love, understanding, and encouragement, the task would not have been completed and could not have been as personally meaningful and satisfying.

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CHAPTER I
INTRODUCTION

Purpose

Extension Home Economists, like other adult learners, utilize a variety of educational resources to meet their learning needs. How these Extension Home Economists acquire new professional knowledge after completion of their formal training and how this learning may be better encouraged and facilitated by Michigan State University are major concerns of the Michigan Cooperative Extension Service.

The purpose of this study is to explore the learning activities of Extension Home Economists. The primary focus is investigating the relationship of both self-directed learning and formal learning to the acquisition of their professional skills and knowledge. A secondary, but also important focus is to describe the types of learning which are preferred by the Extension Home Economists and also the reasons for these preferences.

Specifically, this study includes four broad areas of inquiry. They are:

1. What types of learning do Extension Home Economists currently utilize to acquire the skills which are required in their professional work?
2. How do Extension Home Economists prefer to learn their professional skills?

3. Is there a relationship between the skill area and the type of learning preferred?
4. What types of support do Extension Home Economists identify as important for their learning?

In addition, this investigation attempts to contribute to the current body of research on self-directed learning and formal learning activities which are undertaken by adult learners. The integration of previous findings is beneficial in providing additional meaning to the findings of this study.

The areas of inquiry are intended to be general so they might be inclusive enough to describe the totality of Extension Home Economists' learning activities and yet specific enough to provide a direction for the study.

Problem Area

Studies focusing on self-directed learning activities of the general adult population by Johnstone and Riveria (1965) and the extensive work by Tough (1971) and associates served as the beginning interest for this study. Adults in these studies spent a sizable amount of time each year at their major efforts to learn. The adults studied conducted an average of 5 learning efforts each year which required at least 100 hours each. Some of these learning projects relied on instructors and classes, but more than 70 percent were self-planned, and others relied on friends and peer groups.

Some surveys have focused on the learning efforts of particular occupation groups. A randomly selected group of professional men was found to have conducted a mean of 11 learning projects in one year, and they devoted 1,244 hours to these projects (McCatty, 1974). Their job

related learning was 55 percent of the total and included both keeping up with the literature and new discoveries and learning in order to handle their particular jobs.

Several researchers have studied school teachers as learners. In Canada, Fair (1973) interviewed beginning elementary school teachers. In the United States, Kelley (1976) compared beginning secondary school teachers with those who had taught for ten years and found no significant differences in the number of learning projects they undertook, but there were differences in their motives and difficulties of the projects. These and other studies of school teachers found that teachers are just like anyone else when it comes to their own learning. Their major learning efforts are largely self-planned and not for credit.

Benson (1975) found that 84 percent of the learning projects undertaken by university administrators were job-related. The parish ministers who kept diaries for Alliston (1965) devoted 62 percent of their projects to their vocation. Johns (1973) found that pharmacists in Atlanta, Georgia devoted 30 percent of their learning projects to vocational subject matter, 26 percent to hobbies, 14 percent to home and family concerns and 10 percent to public affairs.

Miller and Botsman, in the only published study of extension agents, in the area of independent learning (1975) found that New York Cooperative Extension agents averaged only 12 yearly projects each. Unlike most populations, they turned to workshops and experts for over half of their learning and planned only 40 percent of their projects themselves.

Even though this was a very limited study, it seemed to leave many important questions to be pursued. First of all, how do Extension

Home Economists choose to learn? Do they also turn to experts for over 50 percent of their professional learning? If so, is this the preferred method? Does the nature of their professional skills impact on the type of learning preferred? And how would they like to be supported as learners?

Methodology

The methodology for this study is based on the grounded theory methodology described by Glaser and Strauss (1965), (1966), (1967) and Glaser (1978). This theory is a constant comparative method for analyzing qualitative data and is a general methodology for generating theory. Grounded theory that emerges from this methodology is systematically obtained, analyzed and grounded in the data itself. Thus the theory is derived from the data rather than being deduced from an existing body of theory.

This method suggests the researcher begin by coding each incident in the data into as many categories as possible, as categories emerge or as data emerge that fit an existing category. While coding, an incident is compared with previous incidents in the same group to generate properties of the category. As the coding continues, the comparative units change from comparison of incident to incident to comparison of incident with the properties of a category.

Grounded theory is especially suited for descriptive studies such as this one, which is on a topic for which very little formal study or theory exists. Grounded theory provides the data that is needed to develop initial hypotheses from which formal theory can occur later. The end product of this study is a set of conclusions derived from the information offered by the study participants.

A basic premise of grounded theory is that theory is ever-developing and not a perfected product. Because this study's conclusion is based on data rather than formal theory, it is unlikely to be completely refuted or replaced by another theory (Glaser and Stauss, 1967). Later studies will be able to add to, expand or refine these conclusions.

The end product of grounded theory research is a set of hypotheses that are grounded in the data. Grounded theory has been demonstrated in studies by Glaser and Strauss (1965); Yinger (1977); and Janesick (1977) as effective for generating theory or hypotheses in little known areas of study. It is important to avoid overly generalizing these findings as this study does not test theories but only generates them. It is expected that the theory that emerges will continue to be enriched and modified through further studies.

Definition of Terms

For the purposes of this study, the following definitions have been used for purposes of clarity and consistency:

Adult. A person who has achieved full physical development and who expects to have the right to participate as a responsible member of society (Houle, 1973).

Cooperative Extension Service. The Cooperative Extension Service is an agency created by the federal government with the passage of the Smith-Lever Act in 1914. The Act authorized educational programs in agriculture, home economics and related subjects to be funded and administered by federal, state and local governments.

Cooperative Extension Service Specialist. A faculty

member of a department within a land grant university who is employed by the state Cooperative Extension Service to provide information, training and teaching materials to county Cooperative Extension personnel.

Learning. The acquisition of knowledge, attitude or skills and the mastery of behavior in which facts, ideas or concepts are made available for individual use (Verner, 1964, p. 32).

Extension Home Economist. A person employed by the Michigan Cooperative Extension Service and housed in a county Cooperative Extension Service office, to provide information and educational programs to the citizens of a county or counties in the content area of home economics and other related areas.

Need. A condition or situation in which something necessary or desirable is required or wanted. Often used to express the deficiencies of an individual or some category of people. A need may be perceived by the person possessing it or by some observer (Houle, 1973).

Professional Skills. The responsibilities and activities normally performed by an Extension Home Economist in the content area of home economics and other related areas.

Self-Directed Learning. A highly deliberate effort, undertaken independently of a formal classroom situation or instructor, to gain and retain a defined area

of knowledge or a skill, or to change in some other way, (Tough, 1971).

Study Participants. Michigan Cooperative Extension Service's Extension Home Economists who were interviewed in this study.

Assumptions

There are three assumptions that had impact on the design of this study. The first assumption was that the Extension Home Economists in Michigan are active adult learners and that they will discuss the nature of their learning with the researcher. The second assumption was that the Extension Home Economists would be able to remember the types of learning that they have experienced for a wide variety of professional skills and that they would be able to describe these learning experiences. A third assumption was that one extensive and probing interview with each Extension Home Economist would be adequate to gather the vital information related to the selected areas of inquiry. These assumptions were necessary to identify study participants and have served as a basis for gathering data.

Limitations of Study

The self-reporting nature of the interview used in this study constitutes an inherent limitation. Interviews are subject to concerns about reliability and validity. Attempts were made to manage reliability by using the researcher as the only interviewer and by following the four areas of inquiry at each interview session. The researcher has attempted to manage validity by allowing the study participants to read their recorded answers and to make any corrections they felt were needed.

To increase reliability, the researcher conducted two trial interviews with Extension Home Economists so that the researcher could better develop skills in asking questions and recording responses and to be sure the questions were worded in a way which would elicit the needed information.

Another limitation of this study was that Extension Home Economists were reporting thoughts and ideas about their own learning activities and may possibly have been effected by their willingness and ability to talk about such things to the researcher. It was possible for the subject to give answers that they considered to be desirable. However, the Extension Home Economists gave every indication of feeling comfortable not only with the interviewer but also with the tape recorder. One subject did jokingly make the comment, "You're not going to quote me, are you?" When the researcher reassured her of anonymity, she proceeded to reveal some very negative feelings with no apparent concern. The study was also limited by the small sample size of only 12 Extension Home Economists who were interviewed. Also, only Extension Home Economists who work in Michigan were included. Although the use of a small study group prohibits broad generalizations about adult learning, it did result in a well-defined group of persons to study and allowed for a potentially greater depth of accurate descriptions.

Similarly, the time span for which Extension Home Economists were asked to recall their learning activities raises concern regarding memory accurateness.

Significance of Study

The significance of this study exists in five areas related to adult learning, and particularly to self-directed adult learning. The

literature in self-directed learning served to identify this topic as one that was worthy of further study. First, this study seeks to identify the types of learning experiences which Extension Home Economists are selecting in order to acquire the skills which are required for their professional work. Special attention was given to their motivation for choosing a particular type of method rather than another available type.

Secondly, this study attempts to contribute to the current body of research on self-directed learning and formal learning activities undertaken by adult learners. This research focuses solely on the learning activities as they relate to professional skills. Both current and earlier research studies clearly indicate that there is extensive activity in learning within the entire adult population.

Thirdly, this study investigates the extent to which the nature or characteristics of the skill impact on the learning activity which the Extension Home Economist prefers. Findings of previous studies point out the possibility that there are certain skills which are more easily learned in a self-directed way than a more formal way and that the opposite is true for other types of skills.

Fourthly, this study explores the diversity of ideas that Extension Home Economists identify as important for their learning. It will be important to look at the methods of choice for the acquisition of all such needed skills.

Finally, this study shows how descriptive data may allow hypotheses and theory to emerge that are well grounded in qualitative data. Very little quantitative data is used in order that this may occur. The findings of this research are not meant to be conclusive but

hopefully they provide a basis for further research on adult learning for the attainment of professional skills.

Remainder of Study

In chapter I, the writer has provided an introduction to the basic problem about which this study is concerned. Chapter II reviews the literature with the intent of establishing background information and with the intent to support the assumptions made in this study. An outline of the grounded theory methodology and the specific implementation of the study is presented in Chapter III. In Chapter IV, the writer presents the major findings of this study and a discussion of the findings and methodology. The conclusions, implications and recommendations for further study are outlined in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this study is to explore the learning activities of Michigan Cooperative Extension Service's Extension Home Economists. The concept of adult learning is one of the most widely discussed areas of adult education. The newest concept of adult learning is that of self-directed learning which began to come into focus with the studies of Allen Tough which began in 1971. The review of the literature is drawn from two major sources. The first source is literature in self-directed learning and its application to adult learners.

The second source which contributes to this review is the literature in adult learning of all types and its relationship to the acquisition of professional skills which are needed to remain current after formal training is completed.

The review of the literature is presented in two sections. The combined review supports the basis for this study.

Self-Directed Learning Literature

The literature of adult education describes the typical adult learner as one who diagnoses his own needs, sets his own goals, chooses his own learning experiences, and measures his personal accomplishments relative to his original goals and objectives. More than anyone else, the learner is said to have greater insight into his own capacities, preferred methods, goals, needs, pace and emotional blocks to learning (Tough, 1971, p.93). "The ultimate drive for continuing education lies

in the desire and will of the individual....When his learning is voluntary, its burden is light" (Houle, 1961, p. 5).

Although Houle's (1961) study of adult learning motivations was completed twenty-five years ago, his research remains the most noted and respected study today. His inquiry consisted of case studies of twenty-two men and women who were extremely active adult learners. Houle was interested in explaining why these learners were so active. Based on extensive interviews, three sub-groups emerged. The first, goal oriented learners, use learning to gain specific objectives, such as learning to speak before an audience, learning better business practices, learning to handle specific family problems, and similar concrete objectives. For the goal oriented, learning is a series of episodes, each beginning with the identification of a need or perhaps an interest. Such learners do not restrict their learning activities to any one method but select whichever method will achieve their purpose. Some of these methods might be reading a book, taking a course, joining a group or taking a trip.

The second sub-group, activity oriented learners, participate primarily for the sake of the activity itself rather than to develop a skill or learn subject matter. They may take a course or join a group to escape boredom or a job situation, to uphold family tradition, to find a spouse, or to obtain credits or a degree. Most of these learners do almost no solitary reading.

The third group identified by Houle consists of those who are learning oriented. These are the people who pursue learning for its own sake. They possess a driving desire to learn and their activities are continual and life long. Most are avid readers, watch serious television

programs, make extensive back-ground preparation for travel and may even choose a job for its offered learning potential.

Boshier (1976), after a careful review of the findings of fourteen research studies attempting to test the Houle typology, concludes that "Houle's typology is elegant and makes subjective sense, but until motivational orientation researchers develop a suitable psychometric procedure to test its validity, it cannot be accepted or rejected as an accurate description of adult learners" (pp. 42-43). Nevertheless, Houle's study offers a useful framework for thinking about multiple motives for adult learning.

There is evidence that self-directed learning is a widespread methodology. Over twenty years ago, Johnstone and Rivera (1965) estimated that in a 12-month period, 9 million adults carried out at least one self-directed learning project.

Tough (1971) began to expand the body of knowledge about adult learning by studying what and why adults learn, how they learn, and what help they use. Toughs' first effort was to study the self-directed tasks that adults perform and the help they receive from others (Tough, 1967).

More recently, the definition of a learning project has been spelled out in great detail (Tough, 1971) and now almost all studies use the same definition. In brief, a learning project is a highly deliberate effort to gain and retain a defined area of knowledge or skill, or to change in some other way. To be included in this definition, a series of related learning sessions must add up to a least seven hours. Tough (1971) further elaborates on his definition by saying that some learning projects are efforts to gain new knowledge, insight, or understanding. Others are attempts to improve one's skill or performance or to change

one's attitudes or emotional reactions. Others involve efforts to change one's overt behavior or to break a habit.

According to Tough, almost everyone undertakes at least one or two major efforts to learn each year and some may undertake as many as twenty. The average is eight learning projects a year. These learning projects may be related to an individual's job, hobbies, personal lifestyle, or to their family. They spent as few as seven hours and as many as several hundred hours on each project. Most learners directed their own projects, but some depended on groups, peers, teachers or a non-human resource.

Toughs' studies were limited to small and not always purely random samples. Despite such limitations, the results indicated a need for further research.

Several surveys have researched a particular geographical area. In Tennessee, Peters and Gordon (1974) interviewed 466 adults in Knoxville and in one rural county. They found that 91 percent of these adults had conducted at least one learning project during a year. Most of these learning projects were job-related or recreational; the remainder focused on personal improvement, religious concerns, and family relations. It was found that the interviewees needed more help in setting goals, locating expert assistance, finding materials and finding evaluation assistance. Professionals, males, and the more highly educated interviewees were more likely to need additional help.

Field (1977) traveled to Jamaica to interview adults in a literacy class, and Denys (1973) went to West Africa to interview several groups of educated adults in Ghana. The data for these two countries were very similar to the findings in the United States and in Canada.

For a national U.S. survey, 1501 adults across America were interviewed in 1976. Penland (1977) reports a learning effort participation rate of 79 percent, but he included learning efforts of less than seven hours. If the shorter efforts are eliminated from the data, the participation rate falls to 70 percent. The mean number of learning efforts per learner was 4.1 percent.

The areas of life in which people said they used their learning were rank ordered in this way (Penland, 1977, p. 40): personal development, home and family, hobbies and recreation, general education, job, religion, voluntary activity, public affairs, and agriculture. When asked where they preferred to learn, most respondents chose their home. Their next preferences were for learning on the job, outdoors, in discussion groups, classrooms, libraries, and public events, in that order.

Penland was interested in the reasons why people choose to learn on their own instead of learning by taking a course. The following rank order of responses begins with the reasons most often selected as particularly important (Penland 1977, p. 32): desire to set my own learning pace; desire to put my own structure on the learning project; desire to use my own style of learning; I wanted to keep the learning strategy flexible and easy to change; I wanted to learn this right away and couldn't wait until a class might start; I didn't know of any class that taught what I wanted to know; lack of time to engage in a group learning program; I don't like a formal classroom situation with a teacher; I don't have enough money for a course or a class; transportation to a class is too problematic or expensive.

Several surveys have focused on the learning efforts of particular occupational groups.

Studying unemployed adults in New Jersey, Johnson, Levine, and Rosenthal (1977, p. 16) found "a fascinating and rich range of learning activity among those who are out of paid work," with 86 out of 100 interviewees able to recall undertaking at least one learning project during the past year. This learning activity included developing new coping skills required by unemployment and efforts to find and prepare for a job, in addition to the usual range of learning efforts.

A picture of the learning patterns of mothers with pre-school children was provided by Coolican (1973). Almost half of their learning activities revolved around the home and family, another 18 percent around hobbies and recreation, and 11 percent around personal development. Public affairs, general education, and vocational and religious subjects each ranked below 10 percent.

A randomly selected group of professional men was found to have conducted a mean of 11 learning projects in one year, and they devoted 1,244 hours to these projects. (McCatty 1974). Their job-related learning (55 percent of the total) included both keeping up with the literature and new discoveries and learning in order to handle particular cases. An interesting variance, also noted in passing in some other surveys, occurred in the average number of hours per project; 148 hours for self-planned projects, but 48 for group learning projects and 79 for one-on-one projects.

McCatty (1974) also asked the survey respondents about their reasons for choosing particular learning methods. The most common reason for choosing the self-planned method was the desire to explore

individualized subject matter: the person wanted to learn particular things and had little interest in a general survey of a field. The most common reason for choosing group or private instruction was the capability of the instructor. McCatty also found the percentage of projects using each type of planner varied sharply from one subject matter area to another. A group method was especially common for religious learning (47 percent of all religious learning projects) and academic learning, whereas one-to-one interaction was common for personal development (29 percent), and self-planned methods were common for current events (96 percent) and vocational learning.

Several researchers have studied school teachers as learners. In Canada, Fair (1973) interviewed beginning elementary school teachers. In the United States, Kelly (1976) compared beginning secondary school teachers with those who had taught for 10 to 15 years and found there were no significant differences in the number of learning projects they undertook, but there were differences in their motives and difficulties. Miller (1977) interviewed teachers in one non-urban area of upstate New York. In Ghana, Denys (1973) interviewed secondary school teachers. In Canada, McCatty (1976) surveyed physical and health-education teachers. All of them found that teachers are just like anyone else when it comes to their own learning: their many major learning efforts are largely self-planned and not for credit. Of the 21 physical-education teachers engaged in fitness programs for themselves, for example, none did so in a group situation. These studies all suggest the need for finding fresh approaches to facilitate teachers' efforts at professional improvement. Teachers are receiving relatively little help now from employers and from faculties of education.

Other professionals have also been studied as learners. Miller and Botsman (1975) found that Cooperative Extension agents averaged 12 yearly projects each. Unlike most populations, though, they turned to workshops and experts for over half of their learning, and planned only 40 percent of their projects themselves. Benson (1975) found that 84 percent of the learning projects undertaken by college and university administrators were job-related. The parish ministers who kept learning diaries for Allerton (1975) devoted 62 percent of their projects to their vocation. In particular, they learned in order to deliver sermons or lessons; to prepare for administrative decisions related to programs, the membership, or the professional staff of the church; or to perform committee responsibilities outside the local church. Johns (1973) found that pharmacists in Atlanta devoted 30 percent of their learning projects to vocational subject matter, 26 percent to hobbies and recreational learning, 14 percent to home and family concerns, and 10 percent to public affairs.

Johnson (1973) studied adults who had just completed their high school examinations in Ft. Lauderdale. The typical interviewee had conducted 13 or 14 learning projects during the year: the total range was 6-29.

Armstrong (1971) found a remarkable amount of learning efforts among unemployed adults of low educational attainment. His descriptions of their learning efforts, and of how the avid learners had at some stage been turned on, are particularly vivid.

Much adult learning occurs in peer groups with a common interest or problem who meet without a professional or trained expert. Farquharson (1975) discovered a remarkable range of self-help groups.

They were effective not only in helping people deal with problems (such as drinking, gambling, weight, physical handicaps, bereavement, child raising), but also in improving their self-confidence and ability to relate to other people effectively and helpfully.

Adult Learning for Professional Skills Literature

The literature dealing with adult learning as it applies to life-long professional skills is much more limited than the self-directed learning literature. Much of what has been written deals with the medical profession and to a lesser extent with the teaching profession.

A great many individual learning projects are related to a person's job or occupation. Before entering a new occupation, a person may have to take many courses or learn in other ways. In order to obtain a promotion or a new responsibility, the individual may need to undertake an intensive learning effort. Job related learning projects will probably continue to be important after the person enters the occupation or obtains a new job. At times, a person may need to upgrade competence by gaining general background knowledge or learning new skills. Also, as new knowledge is discovered in the field, learning to keep up will be necessary. (Tough, 1971).

According to Tough, attempts to upgrade one's knowledge and skill are only a part of job-related learning efforts. Many other learning projects consist of just one step in dealing with an immediate problem, case or task. The person's goal is to prepare a report, make a decision, solve a problem, handle a case, or complete a short term project. In order to do so, he may decide to spend a great deal of time learning about certain aspects first.

Examples of specific job-related learning needs were pointed out in a study of the perceived needs and the importance of these needs for job effectiveness of urban extension agents working with disadvantaged audiences which was conducted by Soobitake and Cunningham (1971). The questionnaire was based largely on nine general areas of competency. Most of the respondents were younger than 35 and had less than 5 years' experience. Among the training needs they perceived were technical knowledge: effective use of radio, photographs, telephone, personal letters, television and newsletters; understanding why people join organizations and the purposes of various agencies serving the disadvantaged; understanding the relationship of daydreaming to creative thinking; understanding the implications of the rapidly changing population trends; how to develop a long-range extension program plan; how to develop an approach sensitive to the disadvantaged; programs on career exploration and development; how to interpret results of research in the physical sciences; and understanding of how the extension service is organized.

The teaching profession lends other examples of job-related learning. "Many teachers want to improve their performance as instructors. In order to do so, a person might set out to learn the content to be taught, learn how to use certain teaching methods, or study the background characteristics of the people he teaches. In addition the instructor can seek feedback concerning his weaknesses by asking his students and others to react to his teaching, or by watching himself in a video recording." (Tough, 1971, p.36).

Not only are adults feeling pressures to gain and use educational credentials to compete in a tightening job market, but the

term, mandated continuing education, came into being to describe the tendency of states and professional associations to require the members of certain vocations and professions to fulfill educational obligations in order to retain or renew their licenses to practice. Stern (1976, p. 361) calls mandated continuing education "the most vexatious issue confronting adult educators and society."

Forty-five states now require continuing education for optometrists, and forty-two have continuing education requirements for nursing home administrators. In Iowa, legislators passed an omnibus bill requiring all twenty-three professional licensing boards in the state to establish continuing education requirements for relicensure. (Watkins, 1979).

The American Academy of Family Physicians requires physicians to take 50 hours of continuing education each year and pass an examination every seven years in order to maintain their specialty. The concern felt by some educators is not that it is unreasonable or undesirable to require people serving the public to keep current in their specialties, but that external requirements can obliterate internal motivations. (Tough, 1971).

The ultimate question is whether mandatory continuing education protects consumers from incompetent practice. The major problem, says Houle (1980), is not ensuring that a professional has the competence to do something, but that he is actually doing it. The professional must be able not only to absorb the evolving knowledge and theoretical concepts of a field, but also to learn the skills for implementing that knowledge; such education cannot be obtained from simply attending a class or seminar.

Summary

The assumptions, upon which the methodology of this study rests, are adequately supported in the literature. All of the literature referring to adult learning cites the significance of self-directed learning as a primary center of learning activities. The significance of self-directed learning for professional skills is addressed to a lesser degree, but certainly suggests it may have a significant impact on the acquisition of such skills.

The literature repeatedly refers to the adult learner as one who diagnoses his own needs, sets his own goals, chooses his own learning experiences and measures his personal accomplishments. The literature presents convincing evidence that self-directed learning is a widespread methodology.

Very little of the work done in the area of self-directed learning addressed the specific topic of its relationship to professional skill acquisition. Consequently, this study has as its focus the relationship between methods of learning and acquisition of Extension Home Economists' needed professional skills and knowledge.

Much of what has been written concerning the type of learning activity and its unique compatibility with specific types of skills deals with the medical profession and, to a lesser extent, with the teaching profession. Tough (1971) reports that a great many learning projects are related to a person's job or occupation. These job-related learning projects continue to be important throughout a person's career.

The assumptions grounded in the existing literature are that first, self-directed learning is a significant type of preferred learning activity and second, that there is a relationship between type of

learning activity and type of skill to be learned. These were the bases of this research effort.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study is to explore the learning activities of Michigan Cooperative Extension Service's Extension Home Economists as they relate to the acquisition of their professional skills. This chapter will give a step-by-step description of the methodology used in this study and will explain the choice of the grounded theory methodology which served as a basis for the data collection and analysis.

The literature review focused on two distinct areas of adult learning. The first and most extensive addressed the issue of self-directed learning and its application to adult learners. The second area concerned the idea of adult learning of all types and its relationship to the acquisition of professional skills which are needed in order to remain current after formal training is completed. The reviews confirmed a need for the study, determined the inquiry areas and indicated the lack of research with the population of Extension Home Economists. This particular literature review did not culminate in the formation of hypotheses but instead supported the need for the use of grounded theory methodology.

Grounded Theory Methodology, An Overview

Grounded theory methodology described by Glaser and Strauss (1965), Glaser and Strauss (1967) and Glaser (1978) focuses on generating theory rather than on verifying theory. It is a method of discovering

theory from systematically obtained and analyzed data. The basic concept about which grounded research centers is that it is the data that initially provides direction and also continually shapes and modifies the research. The end product of such a study using this approach is a theory or set of hypotheses that are developed directly from the data obtained in the area of the study. This method provides the first step in discovering what concepts and hypotheses are relevant to a given area.

Grounded theory differs from the traditional deductive form of research which is a process of verifying preconceived assumptions or pre-established hypotheses. Grounded theory provides a process for identifying theories which are derived directly from the data.

The grounded theory approach extends beyond the major area of study and the existing theories related to the focus of study. Theory grounded in data integrates relevant variables from any source from which they emerge. This quality of grounded theory facilitates the expansion of a theory into a broader, more comprehensive theory. "Grounded theory is ideational; it is a sophisticated, careful method of idea manufacturing." (Glaser, 1978, p. 7).

Glaser (1978) has summarized and expanded upon previous works to provide a basic outline for conducting grounded research but cautions that there is no exact procedure that must be followed. The following concepts are essential components of grounded research. They may be carried out in various ways.

Orienting Concept

A research area can be identified in a variety of ways. It most often surfaces from initial readings in a substantive field,

different but related to the area of research. By design, the focus of the study is vaguely defined, thus allowing for modification once data collection begins. While the questions focus the inquiry, they are not stated as pre-conceived hypotheses. This allows for conceptualizing and conceptual ordering of the emerging data into a body of theory, unencumbered by a preconceived theoretical framework. Glaser and Strauss (1967) encourage the researcher to initially ignore the literature in the area being studied to avoid contamination by pre-conceived concepts and frameworks. The review of the literature in grounded research is used to build theory rather than negate or confirm existing theory.

Theoretical Sampling

Theoretical sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is controlled by the emerging theory. (Glaser, 1978, p.36). As data is obtained, it is grouped into conceptual categories. Through the process of comparative analysis, data from within the same group or from another group is viewed in relation to the developing conceptual categories. Saturation occurs when all aspects of a category have been identified. Grounded theory is based on the discovery of conceptual categories, not upon individual facts. From these categories, the core theory emerges.

Theoretical sampling involves both inductive and deductive logic. Initially, grounded theory is drawn from the data after the data collection begins. Once categories are formed, the research direction is deductively determined. The developing theory guides further data

collection and this allows grounded research to be both flexible and sensitive. The researcher is able to identify what is actually occurring in the field of study and to pursue new areas of interest while the research is in process.

Coding and Data Analysis

In grounded research where the emerging data controls the direction of the study, the key element is the coding and analysis of the data. Coding is described as providing the link between data and theory formation. It is the process of isolating data into individual endices or concepts and reorganizing them into conceptual categories. The categories and properties when fully saturated, that is when nothing new emerges, eventually provide the basis for a theoretical framework.

Codes provide a condensed, abstract view of the data. Glaser (1978, p. 57) suggests the coding be guided by the following set of questions: "What are these data a study of?" "What category does this incident indicate?" "What is actually happening in the data?" These questions clarify the focus of the emerging patterns.

Glaser (1978) describes two types of codes: substantive and theoretical. Substantive codes conceptualize the empirical substance of the findings. The objective is to code different incidences into as many categories as possible. Theoretical coding refers to identifying how substantive codes relate to each other. Theoretical codes also emerge during the research and provide an integrated scope, a broad picture and new perspectives.

Analysis begins with the coding and progresses with memo writing. Memos are a way to store ideas and can be written from the very beginning of data collection to the end of the research. Memos reflect

the researcher's thoughts on indicators and codes and the relationships between them and between codes.

In the beginning of the study, the memos are generated from the constant comparative analysis. Later, memos generate memos. Sorting, writing and reading all result in more memo writing. The memos build on one another until a grounded theory emerges.

Core Categories and Sorting

Core data are collected, coded and analyzed, several categories are generated. It is important to identify the core categories or the main themes. Glaser (1978, p. 95) recommends the following criteria to determine which categories are core categories.

1. It must be related to several categories and their properties more so than other categories.
2. It must occur frequently in the data.
3. It will take longer to saturate a core category because it is related to many other categories.
4. It relates meaningfully and easily with other categories.
5. It has clear implications for formal theory.
6. It is essential and vital to the analysis of the data.
7. It is a highly dependent variable in degree, dimension and type.

Theoretical sorting of memos is the basis for formulating theory for its presentation to others. Sorting puts the data back together again. Theoretical sorting produces a generalized, integrated model from which to write the theory. Sorting is completed when theoretical completeness is reached. The final result is an integrative contribution to the area of study.

Nature of Grounded Theory

The purpose of grounded research is to provide explanations for behavior observed in the study, rather than to validate pre-existing assumptions. Grounded theory produces a stable, well substantiated theory.

Glaser (1978) lists four criteria that grounded theory should meet which enables it to be of practical use. First the categories must "fit" the data. Data should not be forced or selected to fit pre-conceived categories. Nor should data be discarded in order to keep intact an existing theory. Categories must be constantly reviewed to accommodate the emergence of differing data.

Secondly, grounded theory must also be "relevant." The theory must reflect what is actually going on in the study area. Relevance is achieved by allowing core problems and processes to emerge.

Grounded theory must also "work." By this, Glaser states the theory must be able to explain what happened, predict what will happen and also interpret the current happenings. This is achieved by the systematic and analytic approach of grounded research.

The fourth of Glaser's criteria is "modifiability." Theory must be able to change as data continues to be collected. Theory is not a perfected product, but rather an ever-developing one. It is not expected it will be total or all inclusive. It is expected that emerging theory will continue to be enlarged and modified.

Methodology for this Study

Rationale

The methodology for this study is based on the grounded theory methodology which was used and described by Glaser and Strauss (1967) and

Glaser (1978). In this approach, the analyst codes each incident of the data into categories, compares codes, recodes, integrates categories, reduces categories and generates a theory that is derived from data, rather than being deduced from an existing body of theory. This type of analysis is especially useful when concept and hypothesis development is desired. The end product of a study using this approach is a set of hypotheses that account for most of the behavior noted in the relevant areas of study.

Glaser and Strauss (1967) suggest the researcher start by coding each incident in his or her data into as many categories as possible, as categories emerge or as data emerge that fit an existing category. While coding an incident for a category, it is compared with previous incidents in the same group to generate theoretical properties of the category. As the coding continues, the comparative units change from comparison of incident to incident to comparison of incident with the properties of the category. As the theory becomes more solid, modifications become fewer. Underlying uniformities in the categories and their properties may be discovered and will then formulate the theory with a smaller set of higher level concepts.

Grounded theory is especially suited for generating descriptive hypotheses. It is also useful for studying substantive areas such as the learning activities of a group of Extension Home Economists, as very little prior research has been done on the relationship of both self-directed and formal learning to the acquisition of their professional skills.

In this study, the end product is a set of hypotheses that are grounded in the data. Conclusions grounded in data are likely to be of

practical use even before they are tested with experimental research (Glaser and Strauss, 1965). The Michigan Cooperative Extension Service may find this information extremely helpful in the planning of continuing education for Extension Home Economists.

Problem Area

The problem area for this study of actual and preferred learning activities of Extension Home Economists was identified through extensive reading in the area of adult learning. Specifically, this study includes four broad areas of inquiry.

The first area of inquiry deals with the types of learning which Extension Home Economists currently utilize to acquire the skills which are required in their professional work. Extension Home Economists are expected to perform a wide variety of skills, ranging from food preservation, to stress management, to computer programming. Some Extension Home Economists may possess these skills when they enter the profession, but many of them must acquire them after they join the extension service. This question seeks to discover the types of learning activities which are used by Extension Home Economists in order to facilitate the acquisition of their professional skills.

How Extension Home Economists prefer to learn their professional skills was the second area of inquiry of the study. This question was selected to discover if the currently utilized methods of learning are, in fact, the preferred methods of learning. Would an Extension Home Economist prefer to use different types of learning activities if they were available for her use?

The third area of inquiry concerns the possible relationship between the type of skill area and the preferred learning activity. This

question was pursued because the literature suggests that some learning activities are more applicable to certain types of skills than are others. Extension Home Economists' professional skills range from knowledge of scientific nutrition facts to hands-on computer techniques. This area of inquiry asks whether or not there is such a relationship between skill area and preferred learning activity for Extension Home Economists.

What types of support do Extension Home Economists identify as important for their on-going professional learning? The literature of adult education describes an adult learner as one who, more than anyone else, has greater insight into his own capacities, preferred methods, goals, needs, pace and emotional blocks to learning (Tough, 1971). The question considered then, is what types of support do Extension Home Economists identify as important for their on-going acquisition of professional skills and knowledge.

Study Population and Sample

Glaser and Strauss (1976) recommend selecting a population that seems to be the most likely group to provide data related to the problem areas. An obvious group to seek data for this study were Michigan Cooperative Extension Services' Extension Home Economists. This group is one which is continually acquiring professional skills and is likely to experience a variety of learning activities in this acquisition. The group is also well known and accessible to the researcher.

The subjects for this study were twelve Extension Home Economists. The population from which the subjects were selected was that of all county Extension Home Economists who are employed full-time

to provide information and educational programs to the citizens of a county or counties in the content areas of home economics and related areas who are not also in the role of County Extension Director, who do not also have Expanded Food and Nutrition Education Program responsibilities and who do not have a specialized area of responsibility, such as housing or energy.

At the time of this study, 44 Extension Home Economists met all of these criteria. Twelve study participants were randomly selected from the population. Their names were simply placed in a container and drawn out one by one. They were assigned a number as they were drawn. Initially, 20 names were drawn and it was expected that some would be unable to participate. However, each of the first twelve agreed to participate and did, in fact do so. The number 12 was chosen because it was a manageable number and seemed likely to be large enough to yield the desired data and to reach saturation.

The period of selection and study was March and April of 1986. Prior to the selection of participants, permission to do so was received from the director of the Cooperative Extension Service Home Economics Program. The study was then explained by letter to the Extension Home Economists' immediate supervisors.

The researcher also applied to the Human Subjects Committee at Michigan State University for approval of the research project. Permission was granted to continue as outlined.

A personal telephone call from the researcher was made to each selected study participant to explain the study and receive their verbal consent to participate. Following this, a promise of confidentiality letter and a consent form was sent to each Extension Home Economist in

the study. Interviews were then scheduled with all who agreed to participate. A letter of confirmation, which also included an overview of the study and areas of inquiry, was then sent to each of the study participants.

Sources of Data

Demographic information was collected from each of the Extension Home Economists who were included in the study. The remainder of the data was obtained from interviews with the twelve study participants. The interview and demographic information sheet was piloted with two Extension Home Economists who were not identified as possible study participants, to test its usefulness and validity.

Interview Description

Each interview lasted approximately one to four hours. The shortest one was 1 hour and 10 minutes and the longest was 3 hours and 55 minutes. The average length of time was 2 hours and 35 minutes. All interviews were conducted by the researcher to insure that questions and interpretations of responses were as consistent as possible. (See Appendix L for partial interview transcript).

There were two pilot interviews with Extension Home Economists who were not identified as possible study participants. One Extension Home Economist was also a County Extension Director and the other was not a full time Extension Home Economist. Following these, a change was made in the worksheets to allow for more recording space. The remaining twelve interviews were then conducted. All interviews were finished within a period of four weeks. (See Appendix K for interview schedule). At the time of each interview, but before the questioning began, the purpose of the study and the promise of anonymity and confidentiality

was once again repeated.

The interview format was a focused one but used open-ended questions. (See Appendix D-1 and D-2.). This type of interview allowed the interviewee to do most of the talking while the researcher listened, observed and recorded. This technique enabled the interviewer to learn more about the feelings and attitudes of the interviewee and was also less likely to lead the interviewee to respond in any preset, particular way, Borg and Gall (1979). Though it is impossible to assume the validity of factual data about past events obtained by an interview, this method does have the ability to probe into many areas so that the interviewer should be able to more clearly ascertain the reality of the situation, Weiss and Davis (1960).

There were 4 questions asked. The first was, "Tell me about what you've done in your job for the last month." The Extension Home Economists were asked to use their detailed calendars in order to make this first initial listing of activities so that this study was actually grounded in the real work which they do.

The second question was, "How did you learn to do each of the professional skills?" One by one the Extension Home Economist was queried on each of the activities listed from the first question. This question required probes to elicit full and detailed descriptions. The probes used were, "from whom," "in what way," and "how long did it take?" These additional probes enabled the Extension Home Economist to give as much time as necessary to remembering the details of her actual learning experiences. This was the most difficult part for the participants and was greeted by comments such as, "I think I've always known how to can beans," or "I learned it from so many sources and I

think I'm still in the process of learning it."

The third question was, "Do you prefer or not prefer to learn that way?" This question was asked in conjunction with and immediately following each time the second question was asked. After the first two interviews, it became obvious that question number three was awkward to ask and difficult to answer. The question was changed for the following ten interviews to "If you were learning this again, how would you choose to learn it?" The new wording was more comfortable to use and readily elicited the needed information.

The fourth question was "What types of support do you identify that could support you as a learner?" This question was asked only once at the conclusion of the interview and was answered enthusiastically and in great detail by all study participants.

The interviews were recorded by hand and also tape-recorded in case it was necessary to check the information at a later time. This checking was done in five of the twelve interviews in order to be sure that all answers were noted.

Management and Analysis of Data

No longer than 24 hours after each interview, a summary of the interview was written from notes and from memory. This summary also contained impressions about both the study participant's and the interviewer's behavior and attitudes, the date and time of the interview, a description of the environment, and all other related incidents.

At the same time, the data worksheets were completed from the interview notes and the interview summary. The tape-recording was played in 5 instances where sections of notes were unclear.

Memos were also written at many points during this procedure

to reflect the observations and thoughts of the researcher.

Because predetermined categories were not established in this type of research, the notes of the summaries, worksheets and tape recordings were divided according to the study's broad areas of inquiry. The data worksheets were used to find key words and phrases so that they might be managed for later analysis. Data worksheets were devised to enable the researcher to begin the analysis of the data. They were "Types of Learning," "Preferred Learning," "Nature of Skills," and "Future Learning Support."

All of the data worksheets had the study participant's identification number in the upper right hand corner and were color coded to aid in the number of sortings which were made later. The coded responses of the Extension Home Economists were then used to describe the expressed responses and perceptions.

After the fourth interview, the researcher discovered that the information on the Preferred Learning Data Worksheet was repeated on the Nature of Skills Worksheet and so the former was deleted.

Summary

In summary, analysis began with the first interview and proceeded to involve reviewing data worksheets, writing impressions of information, re-reading worksheets and the writing of even more memos. Gradually, main themes emerged that seem to describe the nature of learning activities of Extension Home Economists. The memos were then sorted according to main themes. The sorting provided the outline for Chapters IV and V.

The presentation of findings, discussion and conclusions of the study, implications, and recommendations for further study presented in

the following two chapters should contribute to the understanding of the learning activities of Extension Home Economists, especially as they apply to the acquisition of their professional skills.

CHAPTER IV
PRESENTATION OF FINDINGS AND DISCUSSION

Introduction

The purpose of this study was to explore the learning activities of Michigan Cooperative Extension Services' Extension Home Economists. The descriptions given by the study participants provide an overall picture of the relationship of both self-directed learning and formal learning to the acquisition of the professional skills of this selected population. The types of preferred learning and the reasons for these preferences were also identified through this study.

The findings and discussion will be presented in seven sections: (1) Methodological Findings, (2) Descriptions of Study Participants and Discussion, (3) Types of Learning Currently Utilized and Discussion, (4) Preferred Learning Methods and Discussion, (5) Relationships Between Skill Area and Type of Preferred Learning and Discussion, (6) Requested Support for Future Learning and Discussion, and (7) Summary of Findings.

Methodological Findings

Findings related to methodology are presented which may be of interest and which may impact the descriptive findings of actual and perceived learning activities of Extension Home Economists as presented in this study. First, few of the study participants had difficulty completing the questions on the Demographic Information Sheet (Appendix E). All of the study participants were readily able to list their age

range, number of years with the extension service, number of years of previous employment and scholastic degree attained, usually without hesitation. Two study participants listed their county population at particular ranges initially, but revised the range after completing the interview.

All of the study participants were prepared to list their last month's activities as each one kept a very detailed calendar. If an obvious professional skill was omitted, a probe would always elicit an appropriate response. For example, food preservation was often not mentioned without a probe because it was not the harvesting season. Also, some very routine tasks such as report writing and newsletter preparation sometimes required a probe. After the first three interviews, a pattern of activities was definitely obvious. There is a great deal of similarity between Extension Home Economists as far as their professional activities and skills are concerned.

Identifying the method in which the skill was learned, however, was much more difficult for all of the study participants. Many of the study participants responded to the question with, "It's difficult to know. It has been such a long time ago that I feel like I've always known how to do it." They all had to think for awhile in order to recall exactly how, when and from whom the skill had been learned. Most of the Extension Home Economists had a much easier time recalling the more recently acquired skills such as working with computers, program evaluation, radio work, and stress management. Many skills seemed to have been learned through a combination of methods. Typical comments concerning this were, "I learned basic nutrition when I was a member of 4-H, through my college classes and also by reading all of the recent

material." Or "I guess it was just trial and error. I taught myself how to work with M.A.E.H. I also talked to other Extension Home Economists about what they did in their county." These remarks suggest that some professional skills have many sources of learning, especially when they are learned in a self-directed manner.

Repeatedly the study participants stated that they had not given their learning activity and professional skills relationships much thought prior to the interviews. The restatements and recapitulations were noted to help the Extension Home Economists recall various aspects of these relationships. In every case, the recapitulations resulted in additional information being offered.

It was noted that all of the study participants were very surprised to discover that there was such a definite relationship between a particular skill and the preferred way to learn it. It wasn't unusual for the Extension Home Economists to comment that they had never realized this relationship and certainly never discussed it before, even though they may have been unconsciously acting upon it as they made their choices.

When personal interviews are used to derive data, variations in the amount and content of data gathered from the study participants can be expected. There were factors that may have influenced the content of data gathered. First, the Extension Home Economists were at different stages of their career. Some were engaged in very intense and current learning activities. Others were less intense at the time of the interviews because they had been acting in a professional capacity for a longer time. It might be expected that participants would be able to provide more accurate descriptions of current learning. However,

participants might be able to better describe a learning experience in retrospect because they could be more objective.

Second, ten of the study participants were well known to the researcher, while two were not. The interviewer did not, however, notice any differences in the amount or content of information given as being related to familiarity with the study participants. Variations in the amount and content of data may be due to the Extension Home Economists' levels of comfort with disclosures of dissatisfaction with the current system of inservice training. It was noted that two of the study participants were reluctant to respond to how they felt about particular aspects of training that dealt with the university. They would change the subject or begin to speak in generalities.

The concern also exists that the unique feelings of the Extension Home Economists which were related in the interview have not been conveyed exactly as they were shared. This is due in part because the learning activities and requests for future support have been described by the use of tables and lists. The missing parts are the facial and voice expressions that contributed so much to the participants' descriptions. Communication through words alone is only a portion of the entire picture as explained by the Extension Home Economists.

As previously stated, a validated theory on learning activities is not the end product of this study. The study was only designed to satisfy concerns related to reliability and validity as appropriate for a descriptive study using a grounded theory methodology. Information was verified during the interviews by the use of recapitulations and restatements in order to be sure the interviewer's perceptions were

correct and based upon the information obtained from the study participants. The conclusions of this study add to the current information on learning as it relates to professional skills and provide a basis for future studies.

Description of Study Participants and Discussion

Demographic information was obtained from each of the twelve study participants. This information included their age range, number of years employed by the Cooperative Extension Service, number of years of previous employment, education degree attained, and county population. The information is summarized in tables 1 and 2.

The findings in Table 1 show that the study participants ranged in age from 25-30 years to 56-60 years. The average age range was 36-40 years. The range in years of employment with the Cooperative Extension Service was 1-5 years to 16-20 years. The average range for service was 6-10 years.

Table 1 also includes previous employment of the study participants. Four Extension Home Economists had not had previous employment. The average range was 1-5 years.

All twelve study participants had received a B.S. degree, none an M.S. degree and six an M.A. degree. None of them had yet attained PhD or EdD degrees.

Table 2 shows that the county populations where the Extension Home Economists were employed ranged from under 20,000 to over 90,000. The average county population range was 51,000 to 60,000.

Types of Learning Currently Utilized and Discussion

Several types of learning were identified as being currently utilized by the study participants. Those that were mentioned during

TABLE 1
Demographic Characteristics of Study Participants *

STUDY PARTICIPANTS	AGE RANGE								NUMBER OF YEARS PRIOR EMPLOYMENT				YEARS WITH MSU COOPERATIVE EXT. SVC.				SCHOLASTIC DEGREES OBTAINED	
	25 THRU 30	31 THRU 35	36 THRU 40	41 THRU 45	46 THRU 50	51 THRU 55	56 THRU 60		N	LESS THAN 6	6 TO 10	11 TO 15	LESS THAN 6	6 TO 10	11 TO 15	16 TO 20	BS	MA
1	X							X	X			X	X				X	
2							X					X				X		
3		X						X						X				X
4			X						X				X					X
5	X							X					X				X	
6					X					X				X			X	
7		X								X				X				X
8			X								X			X			X	
9	X							X						X				X
10		X								X			X				X	
11		X										X	X					X
12					X					X					X			X

* Demographic Characteristics were derived from the Demographic Information Sheet--Appendix E

TABLE 2
Demographic Information - Population of Participant's
County of Employment *

POPULATION	STUDY PARTICIPANTS											
	1	2	3	4	5	6	7	8	9	10	11	12
Less than 30,000				X						X		X
30,001 to 50,000							X					
40,001 to 50,000	X	X									X	
50,001 to 60,000												
60,001 to 70,000					X							
70,001 to 80,000									X			
80,001 to 90,000								X				
Over 90,000			X			X						

* Demographic Characteristics were derived from the Demographic Information Sheet--Appendix E

the interview by every Extension Home Economist are depicted in Table 3. Table 3 also presents the total number of times that each participant mentioned the learning activity as a way that she had learned a particular professional skill such as food preservation, use of computers, working with volunteers, etc. The first three listed major learning types are styles of formalized learning, whereas the remaining seven are best described as self-directed.

There is some similarity between taught self, personal experience and learn by doing. However, the Extension Home Economists were very definite that there are pronounced differences and were able to give specific examples to verify these differences. Thus, they remain listed as three distinctly different major types of learning. There were also twelve other types of learning that were mentioned and might be considered minor learning activities. These are presented in Table 4. The first two listed are styles of formalized learning, and the last twelve were described by the Extension Home Economists as being of a self-directed nature.

The first ten categories surfaced immediately as every study participant mentioned each one at least once, and often many times. It was interesting to watch them also begin to realize that there were certain styles of learning that they utilized very often. For instance, study participant number 1 said after a few minutes of describing her learning activities, "Oh, I guess I taught myself that one also. I sure do that a lot, don't I?" A comment from participant number 2 was, "Gee, I didn't think I learned much from inservice training but I sure have!" When number 6 mentioned Mother as a source of learning, she remarked, "Aha, there's a new one!"

TABLE 3
Frequency of Major Learning Types by Study Participants

TYPES OF LEARNING	STUDY PARTICIPANTS											
	1	2	3	4	5	6	7	8	9	10	11	12
Inservice Training	6	8	5	4	2	7	9	6	11	3	6	7
Hands-on Training	2	4	1	2	1	3	2	1	2	1	1	2
College Classes	2	4	4	6	2	6	3	4	3	4	3	5
Another Home Economist	4	5	7	5	7	4	6	4	7	8	4	4
MSU Resource Materials	8	3	4	3	3	5	3	2	4	2	3	2
Taught Self	5	4	6	4	7	3	5	4	5	6	7	3
Personal Experience	4	5	4	5	6	4	4	5	6	5	6	4
Learn by Doing	4	2	2	1	1	2	4	1	3	1	3	1
Reading	3	1	4	2	3	3	5	1	3	3	4	2
Modeling Others	1	3	2	1	4	1	1	1	1	3	2	1

TABLE 4
Frequency of Minor Learning Types by Study Participants

TYPES OF LEARNING	STUDY PARTICIPANTS											
	1	2	3	4	5	6	7	8	9	10	11	12
Phase I Learning	1		2	1			1			2	1	
High School Classes	1	1			1		2				1	1
Bulletins		1	1	1	1			2		1	1	
Previous 4-H Member Experience	1			1								1
Mother	2					1				1		
Supervisor		4		2		1					1	3
County Extension Director					1			1				
Local Experts				1		1				2		1
Seasonal Packet	1	1		2	1		2		3	1	2	1
Commercial Sources			2			1		1			1	
Previous Job	1	2		1		1		1			1	
Other Agencies			1				1			1		1

After the first three interviews, the major categories were firmly set and the researcher would have been very surprised to see a change in this pattern.

Preferred Learning Methods and Discussion

Study participants were asked to describe how they would prefer to learn specific professional tasks if they were able to choose the method. Several preferred learning methods were found to be held in common by all study participants. A preferred learning method was often mentioned several times by the Extension Home Economist, relating to the professional skill which she was discussing. These are presented here in descending order of frequency for the total subject participants.

1. Inservice training ----- 33
2. Hands-on training ----- 30
3. Another EHE ----- 29
4. Early orientation from University ----- 29
5. M.S.U. resource materials ----- 16
6. Teaching self ----- 13
7. Personal experience ----- 12
8. Supervisor ----- 12

There were some instances where they felt they would choose the identical methods by which they had actually learned. However, at least seventy-five percent indicated that they would choose a different way to learn most tasks.

A good example of this is the method by which study participants learned their skills for working with the Michigan Association of Extension Homemakers. Nine of twelve Extension Home Economists learned this by teaching themselves or by what they termed

"trial and error." The other three had previous experience. One had been a member herself, another had learned about it from her mother who was a member and the third had previously worked for Cooperative Extension in another capacity where she had learned about the group.

The nine study participants who had learned by "trial and error" all indicated they would have preferred to learn either from another Extension Home Economist or from some very early orientation from the state staff at the university.

Another example would be the task of writing monthly reports. Extension Home Economists reported learning this skill from a variety of sources such as "another Extension Home Economist," "teaching self," "secretary," and "learn by doing." Ten of the study participants stated during this section of the interview that their preferred source of learning would have been their supervisor, preferably the regional supervisor.

A final example and one that was much discussed was the professional skill of use of the radio media. All of the Extension Home Economists were either very actively involved in this task or had been so at a previous time in their profession. All twelve reported "learning by doing," and the fact that they had been very uncomfortable with this method. Two stated that they would have preferred to learn this from another Extension Home Economist. The other ten preferred "hands-on" inservice training provided very soon after they assumed their position. The reason given for the earliness of training was the fact that radio programming usually begins within the first month on the job.

One of the study participants' most recent skills is that of working with computers. The nine Extension Home Economists who had

learned such a skill indicated that it had been learned through "very intensive hands-on" inservice training. All of them stated that this was also their preferred method for this particular activity and that they had been very pleased with the training they had received.

Relationship Between Skill and Type of Learning Preferred and Discussion

Study participants described the types of learning activities which they preferred for specific necessary professional skills. Table 5 depicts these relationships. Some skills are listed under more than one type of learning activity as the Extension Home Economist would often list more than one way which she preferred for learning a specific task.

This particular part of the interview was difficult to separate from the one immediately previous to it. However, this was an attempt to decide whether or not the Extension Home Economists thought specific types of tasks were more readily learned by particular learning methods. Table 5 indicates that there is a definite connection between skills and methods.

The first and second columns deal with inservice training in general and hands-on training which can be considered formalized forms of training. Study participants were very specific as to which skills are best learned through this type of formalized training. Examples of these skills are food preservation, computers, public affairs, radio, program evaluation and teaching methods.

The last six columns deal with less formalized learning methods which study participants prefer for learning such tasks as report writing, work with M.A.E.H., "one-shot programs," basic nutrition, food preparation, financial planning, weight-control and newsletter writing.

TABLE 5
Preferred Learning Method-Professional Skill Relationship *

In-service Training	Hands-on Training	Another EHE	Early State Orientation	MSU Resource Materials	Teaching Self	Personal Experience	Supervisor
Evaluation of Programs	Food Preservation	M.A.E.H.	Radio	Basic Nutrition	Human Development	Human Development	Report Writing
Teaching Methods	Computer	How to present programs	Newsletter	PSA's	Working with Groups	Financial Planning	Program Review
Public Affairs	T.V.	Newsletter	News Column	News Column	Basic Nutrition and Food Preparation	Working with Volunteers	
Media	Human Development	Radio	M.A.E.H.	"One-shot" Programs		Weight Control	
Clothing Selection and care	Newsletter	Reports	Report Writing				
Small Home Business	Radio	Working with other Agencies					
Leadership styles	Write Key Objectives	Program Ideas					
Health Education		Microwave					

* Information was obtained from Nature of Skill Data Worksheet--Appendix H

Areas which received a great deal of attention from the Extension Home Economists were the tasks which they felt must be learned in some type of a "hands-on" method. Food preservation was used by ten of the Extension Home Economists as an example of such a skill. They felt that it was imperative that this skill be learned by actually experiencing it rather than watching someone else, reading about it or hearing someone talk about it. A statement from one study participant was, "The only way to really be sure that you know how to teach someone to can in a pressure cooker is to actually do it with your own hands." This was a typical expression. In conclusion, Table 5 lends itself to several implications for future inservice direction which will be discussed in Chapter V.

Requested Support For Future Learning and Discussion

All twelve study participants responded enthusiastically to this part of the interview. Probes were not needed to elicit the amount of hoped-for response. Table 6 identifies the supports requested by all twelve Extension Home Economists. A great deal of similarity may be noted among the responses.

The first two supports were mentioned by all twelve study participants. No probes or leading questions were used to elicit any of the responses in this section of the interview. The Extension Home Economists were all asked the same basic question and then allowed to answer in whatever manner felt comfortable to them.

Table 6 includes all the support requests and indicates that they were mentioned by as many as twelve and as few as two study participants. Some of the Extension Home Economists, regarding their comments on support for future learning, stated their requests not

TABLE 6
Requested Support for Future Learning *

SUPPORT	STUDY PARTICIPANTS											
	1	2	3	4	5	6	7	8	9	10	11	12
Awareness of Professional Inservice other than MSU	X	X	X	X	X	X	X	X	X	X	X	X
More Personal Development Offerings	X	X	X	X	X	X	X	X	X	X	X	X
More Process Skill Offerings	X		X	X	X	X	X	X		X	X	X
More Sharing with other EHE's	X	X	X	X	X		X	X		X		X
Video and Audio Tapes for Basic Facts	X			X		X	X	X	X	X	X	X
Continue Release Time for College Classes		X	X		X		X	X	X	X	X	
More Media Training		X		X		X		X	X	X		X
Continue In-Service at MSU		X	X		X		X	X		X		
Hands-on and In-depth Training	X	X		X	X				X			X
Monetary Compensation for Tuition		X	X		X				X	X		X
More Regional In-service	X			X					X		X	X
More Specialist Support					X	X	X	X		X		
More 3 Day Workshops		X	X				X					X
More Time Allowed to Read	X	X						X		X		X
More Informal time with other EHE's & Specialists	X								X			X
Continue 8 days of In-service			X			X			X			
Provision of In-service by EHE's	X			X					X			
Continue Seasonal Packets	X				X	X						
More One-on-one with Specialists					X	X				X		
Network for People in Degree Program			X				X					
List of Books for Updating	X							X				X
Continue Teaching Packets					X							X
Travel Study			X						X			

* Information was obtained from Future Learning Support Worksheet--Appendix I

only represented types of learning support they needed but that the requests mentioned were perceived as very real possibilities, rather than simply "dreams" or "fantasies." It was obvious that they looked at this interview question as a way to be very reasonable and very specific about their requests rather than an opportunity to discuss what they deemed to be impossible to attain.

Study participants were also eager to suggest what they considered needed support for less-experienced Extension Home Economists. For instance, those who had previously received their Masters degrees were still very much concerned with the supports which are needed for other Extension Home Economists who have just begun or are considering such a program. College classes were indicated earlier as a preferred way of learning professional skills so it is understandable that this would also be considered important for future support.

There is much interest in the location and the length of time of the learning activities. Those who work within a hundred miles of the university prefer to meet on campus but others would like to have the choice of what they refer to as regional training whenever possible. This would involve travel by university staff rather than the county Extension Home Economists. Several Extension Home Economists requested that learning activities last at least three days in order to provide more indepth, hands-on training. It was generally concluded that when more time is spent in traveling than in learning, it may be considered an impractical thing to do.

Connected with travel may be the request by nine Extension Home Economists for future support to be offered via video and or audio tapes. It was postulated that this would be a convenient way to learn purely

factual skills such as financial planning, basic nutrition, health education and child development. They were very specific about the types of skills which could and could not be learned in this manner. Skills which required hands-on experience or two way discussion such as use of computers and stress management were not considered possible to learn by listening or even watching a tape. The use of tapes whenever possible would allow more time and money for traveling to participate in other experiential learning activities.

All of the Extension Home Economists requested a system by which they could be informed of available learning activities which are offered by other universities, agencies or organizations. Some of them know now of such offerings but it happens by "accident" rather than through an organized network. Another system or network which was requested by three-fourths of the study participants would provide opportunities for more sharing among Extension Home Economists. This seems a logical request as learning from another Extension Home Economist was the preferred learning method for nine professional skills.

Many current learning supports were appreciated and requests were made for their on-going availability. Some of these were release time for college degree classes, seasonal packet resources, specialist support, updating on current books and references and eighteen days for inservice activities. Several study participants expressed appreciation for the support which the university offers for the continuous learning of professional skills.

This study has also suggested that Extension Home Economists see a need for more indepth hands-on training for certain skills and also that this needs to occur as quickly as possible for new Extension Home

Economists. This need was especially strong in the area of working with M.A.E.H. and media work such as radio, newsletter writing and television presentations. These are skills which a new Extension Home Economist is expected to possess within the first few weeks on the job and thus training should be available as soon as possible. Extension Home Economists who may have had past experience in these areas may not be as dependent on immediate training as those who have not had this experience.

Summary of Findings

The findings presented in Chapter IV present a very clear picture of the learning activities of Extension Home Economists. While each participant responded from her own individual experiences and perceptions, together they present a picture of this particular group of professionals.

The Extension Home Economists are currently and actively involved in the learning of new professionals skills and the updating of others. They use a variety of learning methods depending upon their past experiences and the availability of the methods. All of the participants, however, related incidents wherein they would have definitely preferred to learn by another method if such a one had been available.

The Extension Home Economists were very sure about which types of tasks required certain types of learning activities. One statement which reflects this certainly was, "There is no way I could learn to can vegetables by watching video tape. I would need to get my own hands on that pressure canner."

All twelve participants responded with enthusiasm when asked to discuss learning supports which they felt were necessary for future learning. One said, "I sure hope you have all day. I've been thinking about this for a long time and I've just been waiting for someone to ask me."

Chapter V consists of conclusions and implications based upon these findings. It also includes a list of possible hypotheses and questions upon which further research may be based.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS

The purpose of this study was to describe the learning activities of Michigan Cooperative Extension Services' Extension Home Economists. Four areas of inquiry served to guide this study. These were:

1. What types of learning do Extension Home Economists currently utilize to acquire the skills which are required in their professional work?
2. How do Extension Home Economists prefer to learn their professional skills?
3. Is there a relationship between the skill area and the type of learning preferred?
4. What types of support do Extension Home Economists identify as important for their learning?

This chapter presents a summary of the findings and the conclusions that are drawn from the findings of this study. Recommendations for further research on learning activities for Extension Home Economists for professional skill acquisition are also included.

Summary of Findings

This study regarding the learning activities of Extension Home Economists for the acquisition of professional skills resulted in three major findings. The first finding is the fact that the types of learning

which Extension Home Economists utilize depend upon their past experience, as well as the availability of learning choices.

This study suggests that the current offering of learning activities for Extension Home Economists and their personal past experiences influence the ways in which Extension Home Economists are learning their necessary professional skills. The idea that a formalized inservice activity will meet the needs of all Extension Home Economists does not seem likely to meet with success. If an Extension Home Economist lacks personal experience in the subject matter area, she may require a very different learning activity than an Extension Home Economist who has been exposed to the information in the past. It is evident that even if an Extension Home Economist is willing to participate in the inservice training because of its availability, her willingness alone is insufficient to guarantee the mastery of the skill. An example of this is an Extension Home Economist who attends a food preservation workshop in which she simply observes someone else perform the skills. She may be very willing, and eager to learn but unless she has had hands-on experience in the past or has some in the future, she will find it virtually impossible to perform the task herself.

This study found that the formalized university sources of learning are highly utilized. Because of this, it would be of benefit to the Extension Home Economists if these offerings could be based upon their past experiences. This study points out that Extension Home Economists are capable of deciding exactly what they need to learn a professional skill. Tough (1971) noted that the typical adult learner is one who diagnoses his own needs, sets his own goals and chooses his own learning experiences. Extension Home Economists seem to fit the picture

of "goal-oriented" learning as described by Houle (1961). According to him, "goal-oriented learners" use learning to gain specific objectives. Examples of such specific objectives could well be learning to preserve food or to operate computers.

The second finding deals with the fact that Extension Home Economists prefer to learn professional skills by a variety of methods, depending upon the type of skill needed. These preferences are often different from the ones actually utilized. Learning methods which are designed for specific skills are more likely to result in skill acquisitions. Extension Home Economists reported a preference for self-directed learning in order to acquire approximately seventy-five percent of their professional skills. Extension Home Economists also prefer hands-on training and early orientation for specific types of skills such as radio work and newsletter writing. Extension Home Economists prefer to plan a majority of their own learning and are requesting the time and opportunity to do so.

The last finding is that the requests for future learning support are practical and well defined by the Extension Home Economists and are considered necessary by them for personal, as well as professional, growth and development. This study states that a wide spectrum of learning support is deemed necessary by the Extension Home Economists. This support may range from a person being allowed time to share informally with another professional to being monetarily compensated for an advanced college degree. All types of requested supports were considered beneficial and some were described as being indispensable in order to continue to practice as professional Extension Home Economists.

A variety of requests for inservice training exists. The content was an area addressed by all the study participants. While Extension Home Economists expressed need for training in subject matter areas such as nutrition and money management, they also have needs in the areas of process skills and personal development. In fact, these last two areas were requested by all twelve participants. This has a real implication for the future, as this type of skill training is almost nonexistent at the present time.

CONCLUSIONS

The findings previously stated in this summary, and also in Chapter IV, now become the basis for some conclusions that have significant implications for both Extension Home Economists and the Michigan Cooperative Extension Service.

The first conclusion is based upon the findings which describe the ways in which Extension Home Economists are learning seventy-five percent of their professional skills in a self-directed manner. Resource agencies that are attempting to serve the learning needs of the Extension Home Economists should carefully reexamine their role and look for ways in which they can assist them in their learning and, at the same time, allow them to retain this self-directedness; and not force them to become directed learners.

The data from this study also includes suggestions for doing this. Examples of these suggestions would be requests for lists of current books and resources, for time to interact with other Extension Home Economists, and for the continuation of Michigan State University teaching packets and seasonal packet ideas.

A second conclusion is that if Extension Home Economists prefer to learn certain types of skills in a specific manner, resource agencies who are attempting to meet their needs should offer training through a variety of methods as well as in a variety of topics. It is not possible to teach all subject matter in one manner as Extension Home Economists are requesting that it be much more specific. Examples are the preferences for hands-on training for food preservation and radio, the use of audio and visual tapes for simple facts such as basic nutrition and money management and for group interaction for human development skills such as stress management and parenting. It is necessary to receive the input from Extension Home Economists in order to be sure the teaching method to be used is indeed the preferred and thus, the most efficient one.

A third conclusion is based on a potentially conflicting aspect of the data. This aspect is that while Extension Home Economists are attending an average of fifteen days of formalized training, they still attribute seventy-five percent of their learning of professional skills to self-directed learning activities. The conclusion is that, as a learning vehicle, formalized training does not always provide the most efficient use of time and money in enhancing the professional skills of this particular population.

The Extension Home Economists have suggested how this could be improved. They would not only prefer to use more time in self-directed learning but would like this self-directed learning to be a part of their formalized training. Their suggestions include more time for sharing with other Extension Home Economists during formalized training sessions and also more time for personal participation during these sessions.

A last conclusion states that if, as demonstrated in this study, Extension Home Economists are able to define the support that is necessary for their personal and professional growth and development, it is important to respond to their requests. The literature points out that adult learners are the best judge of their learning needs and the methods which will satisfy these goals. Therefore, once again, resource agencies for Extension Home Economists should ask them for their input and follow their suggestions whenever possible. An example is the fact that one hundred percent of the study participants requested training in the areas of personal development skills and group process skills. It is therefore important to provide this type of resource for them, or to inform them where such resources may be available.

Although it is unusual for a study to present possible research questions, and hypotheses, this study has resulted in both. The research questions which surfaced are the type which lend themselves to grounded theory research. The hypotheses which are grounded in this study's data could be pursued in a more quantitative research mode. The research questions will be presented first and will be followed by the list of hypotheses.

Research Questions

The first question asks "Would the same findings and conclusions drawn from this study be derived from studies with other Extension populations, such as Extension 4-H Agents and Extension Agricultural Agents?" These positions also require a continuous updating of professional skills and could possibly yield the same type of valuable data. It might also be interesting to devise a study which would compare

the learning activities of Extension Home Economists, Extension 4-H Agents and Extension Agricultural Agents.

A second question would address the issue, "Is there a correlation between engaging in preferred learning activities and work productivity and/or work satisfaction for Extension Home Economists." Is the work productivity positively affected by the fact that Extension Home Economists are experiencing preferred learning activities? This seems a possibility, based on the findings of this study which point out that learning readily occurs when Extension Home Economists learn specific skills in a chosen manner. It seems to follow that engaging in preferred learning activities would also effect work satisfaction. Extension Home Economists were very indicative of this when they described preferred learning activities which they had experienced, such as the intensive hands-on computer training.

A three part question which could be pursued collectively asks, "Does the nature of preferred learning activities differ as related to age, past experience or personal characteristics of Extension Home Economists?" This study leaves the researcher questioning this, and the literature supports the possibility of such relationships. This particular question could also be applied to other Extension populations, and comparisons might be pursued.

The last question asks, "Are Extension Home Economists' professional skills more readily learned through self-directed learning activities than through formalized training?" The fact that Extension Home Economists do in fact learn seventy-five percent of their professional skills in this manner would seem to indicate that this is true. However, it may be possible that professional skills could be more

readily learned in another manner if it were available. This question could even be pursued with a more traditional experimental mode of research. Two groups of Extension Home Economists could be formed in order to compare the results of both types of learning activities.

Hypotheses for Future Research

The following propositions, drawn from findings, are suggested as hypotheses for further study.

1. Choices of learning activities of Extension Home Economists are influenced by past personal experiences and past work experiences. This influence is often not recognized by either the Extension Home Economist or the university.
2. Learning activities of Extension Home Economists are often chosen because of their availability, rather than because they are the most applicable to the needed professional skill.
3. The learning activity chosen by Extension Home Economists to acquire a particular professional skill can be linked to the nature of the skill to be learned.
4. The preference of Extension Home Economists for a particular learning activity for a specific skill is important and should be recognized as a legitimate factor when planning such activities.
5. Extension Home Economists prefer to learn a major portion of their necessary professional skills by a method of self-directed learning, rather than through formalized training.

6. "Hands-on" training is the only valid approach to teaching such professional skills of Extension Home Economists as food preservation, use of computers and interpersonal relationships.
7. The needs and preferences of Extension Home Economists, in the matter of needed learning supports, are important and should be acknowledged as legitimate inputs.

Summary

The purpose of this study was to explore the learning activities of Michigan Cooperative Extension Services' Extension Home Economists. The findings of this study resulted in three conclusions. The conclusions emerged from the analysis of the data derived from interviews with twelve Extension Home Economists.

It was found that the types of learning which Extension Home Economists utilized depend upon their past experience and also upon the availability of learning choices. It was concluded, based on this, that an Extension Home Economist who lacks personal experience in a subject matter area may require a very different type of learning activity than another more experienced one. While this study also concluded that the formalized university learning activities are highly utilized, participation alone does not guarantee mastery of the skill.

It was also found that Extension Home Economists prefer to learn professional skills by a variety of methods, depending upon the type of skill needed. These preferences may be different or be the same as those currently utilized. Learning methods which are designed for specific skills are likely to result in skill acquisition. Extension Home Economists prefer to use self-directed learning methods for the

acquisition of seventy-five percent of their professional skills. Last, it was found that Extension Home Economists are requesting supports for future learning that are practical and well-defined. These requests are considered by the Extension Home Economists to be necessary for their continued professional and personal growth and development.

The findings from this study reinforce previous research such as Tough (1971) wherein it is stated that adult learners spend many hours each year on learning projects which are often related to their profession. Tough (1971) found that most learners directed their own projects, but some did depend on groups or teachers. This study also found that Extension Home Economists directed seventy-five percent of their learning activities.

The findings of this study may be considered collectively to add to our understanding of the actual and preferred learning activities of Extension Home Economists as they apply to the acquisition of their professional skills. It provides a basis for which to engage in further studies that will enlarge and refine this understanding. Further studies may also give a greater insight into the relationship of both directed and non-directed learning and the acquisition of professional skills.

APPENDICES

APPENDIX A

Letter of Confirmation

February 28, 1986

Dear

Thank you so much for your willingness to talk to me about the actual and preferred learning activities of Michigan Cooperative Extension Services' Extension Home Economists. This is to confirm our interview for Friday, March 7, 1986, at 8:00 a.m. in your office.

The interview will include four areas of inquiry: 1) the types of learning Extension Home Economists currently utilize to acquire their professional skills, 2) the types of learning preferred by Extension Home Economists, 3) the relationship between the nature of the skill and the learning activity preferred, and 4) the types of support that Extension Home Economists identify to help them as future learners. I will be tape recording our interview as well as taking notes. Once again, I want to remind you that you will not be identified by name in the study, and the interview will remain strictly confidential. The results will be shared with all study participants who wish to see it upon conclusion.

Thank you for your help in this project. I look forward to talking to you on the 7th.

Sincerely,

Doris B. Richardson

APPENDIX B

Consent Form

The purpose of this study is to explore the learning activities of Michigan Cooperative Extension Services Extension Home Economists. The primary focus will be investigating the relationship of both self-directed learning and formal learning to the acquisition of their professional skills. A secondary, but also important focus will be describing the types of learning which are preferred by the Extension Home Economists and also the reasons for these preferences.

I understand that the information I give will be used for a research study as a part of Doris B. Richardson's doctoral program at Michigan State University. I understand that I am volunteering my time, 2 to 4 hours, to take part in the study and that I may withdraw or decline to participate with no penalty attached to such action. I know that my name will not be connected to this information. I also understand that the tape recording of the interview will be erased when it is no longer needed; approximately one month after the time of the interview.

SIGNED _____

DATE _____

APPENDIX C

Letter of Thanks

March 10, 1986

Dear

Thank you so much for allowing me to interview you regarding the learning activities of Michigan Cooperative Extension Services' Extension Home Economists. I know how very busy you are and I appreciate your taking a half-day of your schedule to talk with me.

This study is really very interesting and becomes more so with each additional interview. I'll be happy to share a summary of the findings as soon as it is completed.

Again, thank you for your time and your willingness to participate.

Sincerely,

Doris B. Richardson

APPENDIX D-1

Interview Questions and Worksheet

Identification # _____

Question #1 -- Tell me about what you've done in your job for the last month.

Question #2 -- How did you learn how to do each thing?

Probes: from who?

in what way?

how long did it take?

Question #3 -- Why do you prefer or not prefer to learn that way?

Question #1	Question #2	Question #3

APPENDIX D-2

Interview Questions and Worksheet

Identification # _____

Question #4 -- What types of support do you identify that could support you as a learner?

APPENDIX E

Demographic Information Sheet

Identification # _____

PLEASE check appropriate choice for items 2 through 6

1. Identification # (Completed by Interviewer)

2. Age range

19-24 _____

46-50 _____

25-30 _____

51-55 _____

31-35 _____

56-60 _____

36-40 _____

61-65 _____

41-45 _____

3. How many years have you been employed by the MSU Cooperation Extension Service.

Less than 6 _____

26-30 _____

6-10 _____

31-35 _____

11-15 _____

over 35 _____

16-20 _____

21-25 _____

4. How many years were you employed before you came to the MSU Cooperative Extension Service.

none _____

11-15 _____

Less than 6 _____

16-20 _____

6-10 _____

21-25 _____

APPENDIX E, CONTINUED

Identification # _____

5. Education degree attained:

BS _____

EdD _____

MA _____

PhD _____

MS _____

Post Doctoral _____

6. County Population

Less than-30,000 _____

61,001-70,000 _____

31,001-40,000 _____

71,001-80,000 _____

41,001-50,000 _____

81,001-90,000 _____

51,001-60,000 _____

over 90,000 _____

APPENDIX G

Preferred Learning Data Worksheet

Identification # _____

Descriptions of Preferred Learning Activities - Key words and phrases

APPENDIX H

Nature of Skill Data Worksheet

Identification # _____

Nature of Skills and Preferred Learning - Key words and phrases

APPENDIX I

Future Learning Support Worksheet

Identification # _____

Future Learning Support - Key words and phrases

APPENDIX J

General Observations Worksheet

Identification # _____

Observations - Key words and phrases

APPENDIX K
Interview Schedule

<u>Participant</u>		<u>Intrview Date</u>
1	- - - - -	Friday, March 14
2	- - - - -	Monday, March 17
3	- - - - -	Wednesday, March 19
4	- - - - -	Friday, March 21
5	- - - - -	Tuesday, March 25
6	- - - - -	Thursday, March 27
7	- - - - -	Monday, March 31
8	- - - - -	Tuesday, April 1
9	- - - - -	Wednesday, April 2
10	- - - - -	Friday, April 4
11	- - - - -	Monday, April 7
12	- - - - -	Thursday, April 10

APPENDIX L

Interview Excerpt

(The following excerpt from an interview is included to show the procedure that was used. Only the first two activities that were listed by the Extension Home Economist will be shown here as space does not allow for all thirty-two of her activities. The first two present a good picture of the interview technique. The Extension Home Economist will be referred to as EHE, and the interviewer as Inter.)

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	Let's discuss one at a time each of your activities which you listed. I have two questions to ask about each one.	
EHE	Okay. What was the first one? That stress management program for farmers?	I showed her the list I had made at this point.
Inter.	Yes, that was the first one that you mentioned. How did you learn how to do this?	
EHE	That's easy. There was an inservice workshop for the EMAT team that dealt with stress and how it relates to farmers today.	
Inter.	Was that the first time you learned about stress?	
EHE	Oh, no I've known about it a long time. I first studied it in College. I've known a lot about it first hand, too. This job is really a stressful one!	She was smiling at this point.

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	Were there any other ways you learned about it?	I felt a probe was necessary here to get more details.
EHE	Um, I went to a 4-H training meeting once where we practiced relaxation, along with just listening to someone tell about it.	
Inter.	How long did it take you to learn about stress?	
EHE	Oh, a long time, and I'm still learning. I started teaching it though after I really experienced the relaxation stuff. That made me feel like I really could do it. Now, I use a lot of MSU materials plus my own experience whenever I have a program to give.	"Hands-on" Mixture of learning activities.
Inter.	If you could learn it again, would you choose the same way?	This is the 2nd question asked about each activity. It is called Question #3 on the Worksheet.
EHE	Yes, I think so. I like to get some basic facts from a specialist but that doesn't help until you really experience it yourself. This kind of subject matter has to be taught experientially. Otherwise, I could just learn it from a book.	This indicates a preference for hands-on for this type of skill.
Inter.	Anything else you would like to add about how you prefer to learn this type of skill?	Wanted to give her plenty of time to think about it.
EHE	No, just that you have to really experience it, not just hear a lecture.	

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	Shall we move on to your next activity? You may add to this first one later if you think of something else.	
EHE	Okay, It was a council meeting with the Michigan Association of Extension Homemakers. I know you know all about that group, right?	This is a group for which EHE's serve as advisor and to whom they provide educational assistance.
Inter.	Yes, do you remember how you learned these skills?	
EHE	I sure do! I taught myself. You could call it trial and error, I guess. I made a lot of mistakes doing it too.	
Inter.	Could you tell me more about this?	
EHE	Well, I'd never even heard of the group until I'd been on the job a couple of weeks. Someone said there was a notebook about it, but I couldn't find it. All of a sudden, they came in for a meeting and there I was. I made a lot of mistakes before I finally figured out what to do.	
Inter.	Did you learn it from anyone else?	I felt a probe was needed here.
EHE	I asked the EHE in _____ County and she told me what she did. I'd already done a lot of different things by then. Then, a lot later, I went to a Learn and Lead meeting and that helped too. I guess I finally just worked it out.	Variety of sources that she found herself.
Inter.	If you could learn it again, would you choose the same way?	
EHE	I think you <u>know</u> I wouldn't, right?	

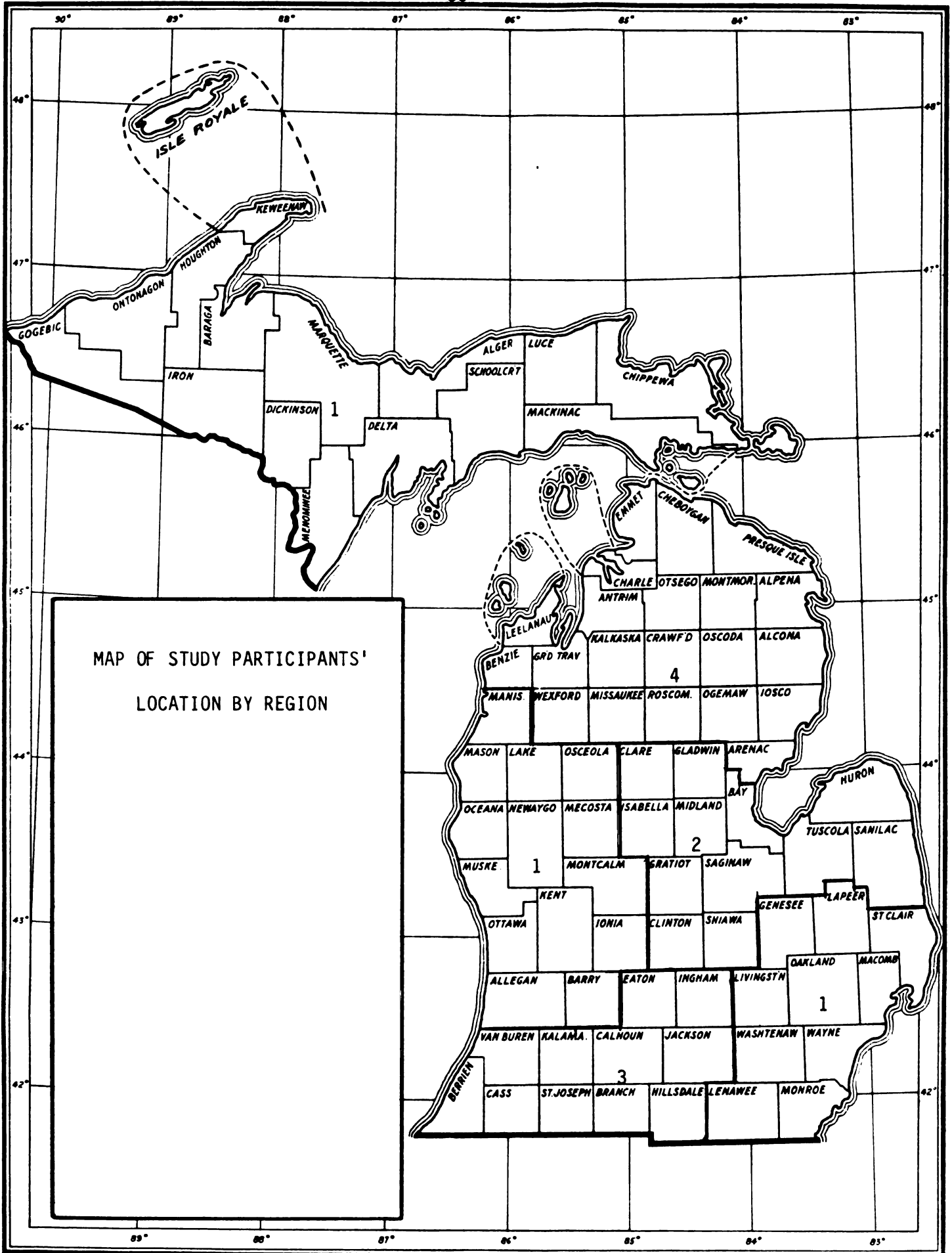
<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	Right! Tell me how you would like to learn it, okay?	I needed to be honest here.
EHE	I'm really not sure. I do know I'd want to learn it as soon as possible. Maybe even before I started to work. It's not something you can just read about. You have to have a chance to ask questions from someone who knows the answers.	
Inter.	Who do you think that would be?	
EHE	It could be another EHE if she wasn't prejudiced about it, you know. I guess it would be better if it were someone from the University, probably Joan Witter. The stuff she tells us at the meetings helps but it's too late when you're new.	
Inter.	Anything else to add about this?	
EHE	No, just that it's very important to learn it fast and to learn it right. Mistakes are hard to fix afterwards. It's better not to make them at all.	

(This next section is presented to give an idea of question #4 and the method that was used to obtain this data. This is also just a partial interview.)

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	What types of support do you identify that could support you as a learner?	
EHE	I hope you have the rest of the day because I've been thinking about this for a long time and just waiting for someone to ask me.	

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
Inter.	Good, just start anywhere you want.	
EHE	First of all, I think it's great we get so many days for training. I don't know any other place that is so generous. I'd like some changes though.	Several other EHEs also expressed this opinion.
Inter.	What kind of changes?	
EHE	Well, I think we should have less one day stuff and concentrate on indepth hands-on training like we did for computers. Most of the one day things could be written material or even a video tape. It's just too far to drive and not too smart to spend more time driving than learning.	
Inter.	Anything else?	
EHE	Yes, I'd like to know about other opportunities besides those at MSU. Sometimes I find out by accident but it would be nice if specialists or someone, maybe you, would keep us informed and tell us if they're any good.	This response came from each of the twelve study participants.
Inter.	That sounds like a great idea.	
EHE	I'd also like help in other things besides nutrition and other subject matter.	
Inter.	What kind of help do you mean?	
EHE	Um, workshops like how to work with other people, how to manage stress on the job and how to plan my career.	Another unanimous type of request.
Inter.	What else along this line?	

<u>Persons</u>	<u>Actual Dialogue</u>	<u>Comments</u>
EHE	Oh, I know. I guess it's called process. You know, how to work with advisory groups, how to plan big events and how to teach adults.	Another common request.
Inter.	And?	
EHE	We really need help with radio and T.V. I've taught myself but it would be better for new EHEs to have some hands-on training from someone at the University.	



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