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ABSTRACT

The purpose of this dissertation research was to investigate the learning activities of mothers whose oldest child was not yet in school. While all learning activities of this group were surveyed, the emphasis of the study was on their self-planned learning projects. A second purpose was to describe the educational information sources utilized by this group and to delineate the policy-coordinating issues for adult education. The study sought answers to questions concerning: (1) amount of learning undertaken by the mothers in the past 12 months, (2) the amount of learning that was self-planned, (3) primary goal of each learning project: vocational, personal or family, social and civic, or self-fulfillment, (4) persons or agencies that learners involved in their efforts to learn, (5) perceptions and knowledge of adult education opportunities and agency offerings, and (6) obstacles that confronted learners in their efforts to learn. Subjects were 48 mothers residing in a New York suburban community. Data was collected by intensive interviews and a more general questionnaire. Results show that subjects had limited knowledge of the learning resources available from adult education institutions; that they seldom used institutions with the exception of television, business and industry, and religious institutions. (Author/CS)

THE LEARNING STYLE OF MOTHERS OF YOUNG CHILDREN

by

PATRICIA MARY COOLICAN

B.S., Cornell University, 1950
M.S., Michigan State University, 1960

ABSTRACT OF DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Adult Education in the Graduate School of Syracuse University, December, 1973.

Approved Harlan L. Copeland

Date November 30, 1973

The purposes of this study were: (1) to investigate the learning activities of mothers whose oldest child was not yet in school, (2) to describe the educational information sources utilized, and (3) to delineate the policy-coordinating issues for adult education.

Subjects were forty-eight mothers residing in a central New York suburban community. The random sample was stratified into two independent samples of equal numbers: Group 1 included mothers whose oldest child was between 9 and 30 months; Group 2 included mothers whose oldest child ranged in age between 30 and 64 months.

Data were collected by an intensive interview with each subject. A revised form of Tough's interview schedule provided the guide for collecting information related to learning projects conducted. A questionnaire designed by the investigator was used to collect information on personal characteristics, information sources, and knowledge and use of adult education institutions. Data were analyzed on an IBM-360/65 computer, using the Statistical Package for the Social Sciences (SPSS) computer program.

The two groups differed, by design, in stage of the family life cycle. They did not differ significantly in the variables of family status, age, educational level, attitude towards school, social position, status in the work force, family income, or husband's attitude toward the wife's learning.

The [illegible] interviewed undertook 6 learning projects and spent [illegible] on them during the 12 months prior to the interview. There

were no statistically significant differences between the two groups in either the number of projects or total number of hours spent.

Cramer's V was used to determine the extent of association between personal characteristics and number of projects and total time spent. The data suggest that differences in age, educational level, attitude towards school, family income, and social position may have an effect on the extent of learning efforts for this group of adults.

Subject matter relating to personal or family competence was the most important area--59 percent of all projects were in this category; the next largest, 27 percent, was the area of self-fulfillment. Learning projects relating to vocational, and social and civic competence had minor positions in the overall pattern, accounting for 6 and 7 percent respectively.

Self-planned learning dominated the field of participation, accounting for 66 percent of the projects. At the other end of the scale, a material resource (e.g., tape recorder or book) was employed as planner in 1 percent of the learning projects. The group was used as a planner for 16 percent and 13 percent were planned by an individual with whom the learner reacted on a one-to-one basis.

For slightly more than 40 percent of self-planned projects, reasons cited as to why the learner planned the project herself were that the learner was either not aware of any other planner to use or felt the project was of such a personal nature that self-planning was the only way to learn it. Some felt qualified to plan the learning

project and used outside planners only when they did not know enough to plan it themselves. Others found the flexibility of fitting self-planned projects into a limited time schedule an important factor; in other instances the possibility of using a variety of resources was important.

Subjects had limited knowledge of the learning resources available from adult education institutions. They seldom used institutions with the exception of television, business and industry, and religious institutions. The percentages of subjects who used these three institutions as resources were 42, 39, and 19 percent respectively. Also, the five institutions named most often as potential information sources--libraries, public schools, health and welfare agencies, colleges and universities, and Cooperative Extension--were different from those which ranked highest in use.

The three most frequently mentioned reasons given as obstacles to learning were limited time and energy, limited money, and priority of family obligations. A closely related reason was the mothers' difficulty in locating trustworthy baby-sitters.

While this study of mothers of young children seems consistent with generalizations that are emerging pertaining to adult learning and self-planned learning, it is fairly clear that young mothers, by comparison, have consistently engaged in fewer learning activities than other groups of adults.

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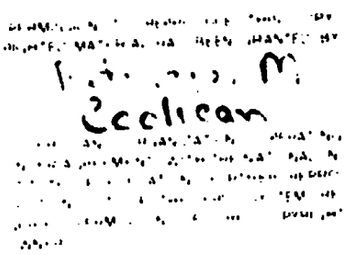

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Special thanks go first to the members of my dissertation committee--Harlan Copeland, Lee Porter, and Warren Ziegler--who provided the right combination of encouragement and criticism to ensure productivity without complacence. As chairman, Harlan Copeland combined a sharp eye for detail with an uncompromising standard for technical excellence; without his counsel and direction, this study would never have been completed.

Forty-eight exciting young women participated in the study. I wish to thank each of them, not only for providing the hoped-for data but also for providing me with a very rewarding experience.

A note of thanks goes to Bob Brack, on sabbatical leave at Syracuse this year from the University of Saskatchewan, for his valuable advice and suggestions on questionnaire design.

My thanks also go to Allen Tough who provided not only the original spark for a dissertation topic but also served as a very important resource during its development.

The most exciting academic adventure of my life was made possible because of the financial assistance provided by the American Home Economics Foundation, the Farm Foundation, the National Association of Extension Home Economists, and the Sarah Bradley Tyson Memorial. A very special thank you goes to each of them.

Syracuse
October 5, 1973

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CHAPTER I

INTRODUCTION

The future of adult education is inescapably bound up with the future of the society in which it is embedded.[1] The incessant demands of change pervade every aspect of twentieth century man's existence. Not only has change become a constant, but its rate of appearance is accelerating. More scientific and technologic progress has been made over the last twenty years than in the entire history of the world, and it continues at an ever-quickening pace. One of the major themes of postindustrial society will be learning through the lifespan.

Most adults alive today were educated in their youth according to the doctrine that learning is primarily a function of youth and that the purpose of education is to supply individuals in their youth with the knowledge and skills they will require to live adequately for the rest of their lives. The rapidly accelerating pace of change in our society has proved this doctrine to be no longer valid. Youth education ought to result in the capacity of the adult to pursue his own education. Continuous learning through the lifespan is absolutely essential to combat creeping obsolescence in work, in play, in understanding of self, and in understanding the world.

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[1] Warren L. Ziegler, "Speculations on the Future of Adult Education and Learning in the United States" (unpublished discussion draft, [illegible] Policy Research Center, Syracuse University Research Corporation, Syracuse, N.Y., 1971), p. 1.

The Problem Selected for Study

Adult education has a large body of research findings about participation. Most of these studies, however, are studies of participants in institutional programs. Adult educators really know very little about participation in adult learning activities from the individual learner's standpoint--how much time he spends at learning, what and why he learns, how he learns, where he learns, and what help he obtains to assist him in his learning. Nor is very much known about the adult education delivery system and its inadequacies.

It is only recently that attention has been focused on the activities of the individual who is engaged in planning his own learning. The available data on learning activities that are initiated, planned, and conducted by the learner himself are very meager.

Some recent research[1] exploring the deliberate learning projects of a small group of intensively interviewed adults revealed that those adults spent an average of 700 to 800 hours per year in learning. A revealing part of this study was the fact that almost 70 percent of this time was spent in self-planned learning outside the institutional framework of adult education.

The concept of self-planned learning refers to a person's deliberate attempt to learn some specific knowledge and/or skill where he himself takes primary responsibility for planning not only the why, but also the what and how to learn, when to learn, and where to learn.

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[1] Allen M. Tough, The Adult's Learning Projects (Toronto: Ontario Institute for Studies in Education, 1971).

He may seek help and advice about these decisions from a variety of individuals and materials, but he retains control of and responsibility for deciding what resources and activities to use each time.[1]

Similar behavior has also been called self-instruction, self-education, independent study, and self-directed learning in the literature. These terms may or may not be synonymous with self-planned learning. Whether they can be used interchangeably with self-planned learning as defined by Tough depends on who assumes the primary responsibility for planning the learning. If it is the learner, and not another individual or group or nonhuman resource such as television, correspondence course, book, etc., then the terms are interchangeable. The learner may, however, decide to engage in a learning experience planned by others because it helps him to achieve his educational goal.

Since the sample used in the Tough study was small (N=66) and was not selected on a random basis, there was a need to continue this research with other groups of adults. One specific group of adults--whose rate of participation in institutional adult education programs is low--is mothers with young children.[2] Other than the fact of their low participation, very little is known about the extent to which they continue their learning activity during this period in their life cycle. Except for the [illegible] interviewed in Tough's study,[3] no investigations [illegible] of the learning activities of this group of adults.

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[1] [illegible], p. 7.

[2] [illegible] W. C. [illegible] and Byron J. Rivera, Volunteers for Learning ([illegible]: A[illegible] P[illegible] Service Bureau, [illegible]), p. [illegible].

[3] [illegible], A [illegible] Learning Projects, pp. [illegible].

Purposes of the Study

What are the implications for society and the field of adult education if individuals learn independently without recourse to the traditional adult education institutions? Specifically, this study was concerned with one dimension of the broader question: the extent and scope of learning activities of a particular group of adults--mothers of young children.

The primary purpose of this study was to investigate the learning activities of mothers whose oldest child was not yet in school. While all learning activities of this group were surveyed, the emphasis of the study was on their self-planned learning projects. A second purpose was to describe the educational information sources utilized by this group and to delineate the policy-coordinating issues for adult education. The study sought answers to questions concerning:

1. amount of learning undertaken in the past twelve months
2. amount of learning that was self-planned
3. primary goal of each learning project: vocational, personal or family, social and civic, or self-fulfillment
4. persons or agencies that learners involved in their efforts to learn
5. perceptions and knowledge of adult education opportunities and agency offerings
6. obstacles that confronted learners in their efforts to learn.

Rationale

Self-planned learning is not a new concept. Support for the claim of man's ability as a self-learner can be found with the Greek philosophers.[1] Socrates spoke about the wise as those who have mastered self-control and declared themselves as self-learners who are not ashamed to learn from everyone around them. Plato saw the ability of the adult for self-learning as the ultimate goal of education of the young. Aristotle talked about the principle of self-realization, the entelechy, a potentiality for wisdom in each living being which can be developed both through self-learning and through the help of a teacher.

There are examples of adult self-learners down through the ages. Caesar included time for writing and study in his daily work plan. Alfred the Great, the English medieval king, was said to have devoted every minute that he could spare from his duties as ruler to the improvement of his mind.[2] Winston Churchill found that it was not until the age of twenty-one that "the desire for learning came upon me";[3] he then began to spend four or five hours a day reading history, philosophy, and economics.

In the United States, Benjamin Franklin was one of the early leaders in self-learning. Many people consider Abraham Lincoln "the

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[1] Sinora Kollar, "An Historical Overview of the Adult Self-Learner," International Council of University Adult Education Journal, 9:13 (September, 1970), p. 3.

[2] Ibid., p. 4.

[3] Winston S. Churchill, A Roving Commission: The Story of My Life (New York: Charles Scribner's Sons, 1941), p. 109.

greatest of the self-educated leaders in American history."[1] The success story of Thomas A. Edison, who became one of the most prolific inventors, is another well-known American example of the self-learning adult. He was engaged in learning and discovery almost to his death although he attended only three months of public school as a child.[2]

The introduction of free compulsory education for children following the Industrial Revolution attracted the attention of most educational researchers, although there were some adult educators studying the individuals who participated in programs organized for adults. It was not until the late 1950's that Houle[3] initiated a line of inquiry that studied the total learning activities of adults rather than studying the participants in specific programs.

The Johnstone and Rivera study[4] was the first to document the magnitude of self-planned learning by adults in the United States. Beginning with Tough's work in 1965, a systematic inquiry of the self-learner began to emerge.

Tough's initial inquiry into the nature of the self-learner was his dissertation[5] that focused on the teaching tasks performed by adult self-teachers. Utilizing an intensive interview, he examined the program

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[1] C. Hartley Grattan, In Quest of Knowledge: A Historical Perspective on Adult Education (New York: Association Press, 1955), p. 140.

[2] Kulich, "An Historical Overview", p. 24.

[3] Cyril O. Houle, The Inquiring Mind (Madison: The University of Wisconsin Press, 1961).

[4] Johnstone and Rivera, Volunteers for Learning.

[5] Allen M. Tough, "The Teaching Tasks Performed by Adult Self-Teachers" (unpublished Ph.D. dissertation, University of Chicago, 1965).

planning processes employed by forty adults while teaching themselves. A further study by Tough[1] on the major reasons for beginning and continuing a learning project provided greater insight into an adult's conscious motivation at the time he begins a deliberate sustained effort to learn, and at the midpoint of the learning project. Tough's most recent study[2] investigated the learning activities of a small group of adults. In his interviews, he probed intensively for all of the person's learning projects. He used long lists of subject matter and learning methods to stimulate recall. Each learner was interviewed intensively in a two-hour interview devoted exclusively to discovering all the person's learning projects during the preceding year, and to gathering certain basic data about these projects.

Tough's studies, though conducted with small, self-selected samples, have resulted in observations and implications that are by no means trivial. In fact, they focus on an issue that may be fundamental in determining the future of adult education: what influence should adult educators exert on self-planned learning?

Findings from the Tough studies suggest that a large segment of the population is not dependent on traditional approaches to learning. Further study of the self-learner and the ways that he copes with his learning environment are needed to enable adult educators to formulate an improved and varied approach to learning. If everyone is to become a continuous learner, self-planned learning may have to form a considerable

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[1] A. M. Tough, Why Adults Learn: A Study of the Major Reasons for Beginning and Continuing a Learning Project (Toronto: Ontario Institute for Studies in Education, 1968).

[2] Tough, Adult Learning Projects.

part of this integrated, lifelong system of learning. Not only is it economically impossible to develop institutional programs for everyone but also not everyone wants to learn in an institutional setting.

Design of the Study

The focus of this study was on the learning activities of a particular group of adults. The population was mothers whose oldest child was under six years of age. The sample was selected from mothers residing in the suburban school district of North Syracuse, located in Onondaga County, New York.

A stratified random sample was drawn from the computerized list of those families in the school district whose oldest child had not yet reached his sixth birthday. The master list was divided into two parts--List 1 included those families whose oldest child was under thirty months; List 2 included those families whose oldest child was between thirty months and six years of age. Twenty-five mothers were selected to be interviewed from each list.

The decision to control for the age of the oldest child was based on Evelyn Duvall's family life cycle theory.[1] Her thesis was that families grow and develop as their children do. A family grows through a given stage with the oldest child and in a sense "repeats" as subsequent children come along. The researcher's assumption in having two groups was that the developmental stages of children may alter the [illegible] of their mothers.

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[1] [illegible], Family Development (4th ed.; Philadelphia: J. B. Lippincott Company, 1971).

The study investigated the deliberate learning activities of these mothers. The focus was limited to deliberate learning efforts, and excluded the multitude of phenomena and forces that produce changes in a person without regard for a predetermined purpose. The study was not concerned with either a laboratory or an ideal form of learning. Instead, it investigated learning as it occurred naturally in daily life, without being influenced by the researcher. It investigated the actual ways, not necessarily the most effective ways, in which mothers of young children learn. The study included all of the mother's learning projects, regardless of what she was trying to learn, why, how, and where. Because the author was interested in obtaining a complete picture of the person's total learning effort, the investigation was not restricted to certain methods or places of learning, length of learning projects, or certain subject matter.

Data for this study were collected through indepth interviews conducted by the author. A method developed by Tough in his 1970 study was judged to be a valid instrument for helping people recall their learning efforts. It was adapted for collecting information necessary to meet the purposes of this study.

Significance

The significance of this research resides in at least two areas: theoretical work, including the extension of knowledge, and the practical application work.

The concept of self-planned learning contains important dimensions that appear to be applicable to the theory of self-planned learning. Included among these dimensions are the importance of an outside agent (teacher), the autonomy of the learner, the relationships among the learner, teacher, and information, the execution of learning behavior, and the evaluation of learning outcomes.

The study should make a significant contribution to the existing body of knowledge and theory development concerning learning behaviors, motivations, and/or drives of mothers who have young children. In addition, the study should contribute to the knowledge specifically concerned with the continuing education of women.

From a practical viewpoint, data gathered in this study should help clarify the educational needs of mothers of young children by revealing their learning habits and continuing education interests. This study may provide the information necessary to answer the question of how learning experiences for this group should be organized. There should be implications for adult education institutions focusing on this audience in terms of content areas and delivery systems.

Organization of the Dissertation

This introductory chapter has included a statement of the problem, the purpose of the study, and the rationale. The research design and the limitations of the study were described briefly.

A review of the literature considered relevant to the study problem is presented in Chapter II. Definition of terms and the questions to be answered complete the chapter.

Chapter III concentrates on methodology, including sample selection, instrumentation, data collection, and data analysis. The treatment of the data and the findings comprise the content of Chapter IV. Additional data on the utilization of information sources is presented in Chapter V. The final chapter contains a summary of the study, the conclusions, and implications for adult education.

CHAPTER II

BACKGROUND OF THE STUDY

Overview

Three areas of literature need to be considered in order to study the educational participation of young mothers: participation studies with an institutional focus, participation studies that focus on the individual, and literature relating to the participation of women. Following the review of literature, questions to be answered in this study are stated and the operational definitions of terms are presented.

Participation Studies

Few areas of adult education have received as much attention as the general area of participation. An abundance of studies deals with this topic. Indeed, if volume of writing can be taken as an index, participation must rank as one of the major concerns of adult educators.

The focus of adult education participation studies has been from either the institution viewpoint or that of the individual learner. In the former, the institutional activity is the focus as the investigator attempts to determine who participates and why. In the latter, the focus is on the totality of educational experience of the individual learner over a period of time.

Findings from studies with an institutional focus

Participation studies with an institutional focus have most often taken the form described as "clientele analysis." This type of study consists of a description of the characteristics of the participants in adult education programs of one or more agencies in comparison with the characteristics of the general population who could potentially be served. The characteristics frequently used for comparison include sex, age, employment status, level of occupation, level of income, marital status, family status, and place of residence.

Numerous studies of this kind have been conducted throughout the country, and out of them has emerged a fairly consistent profile describing the participant in adult education programs. Houle summarized clientele analysis studies with these general conclusions:

> In general, high income groups are more likely to take part in educational activities than low income groups. Participation is also positively related to the size of the community, the length of residence in it, and the number of different kinds of educational activity available. People with certain nationality or religious backgrounds are more active than those with other backgrounds. Age is important; the very young adult seldom takes part, but there is a sharp upturn in the late twenties, a fairly constant level of activity until the age of fifty, and a decline afterward. Married people participate more than single people, and families with schoolage children more than families without them. Many more professional, managerial, and technical people take part relative to their number in the population than do people from other occupational groups; next in significance are white collar and clerical workers; then skilled laborers; and lastly unskilled laborers. But the most universally important factor is schooling. The higher the formal education of the adult, the more likely it is that he will take part in continuing education. The amount of schooling is, in fact, so significant that it underlies or reinforces

> many of the other determinants, such as occupation, size of community, length of stay in it, and nationality and religious background.[1]

One outcome of clientele analyses has been generalizations concerning the participation patterns of various subgroups within the population, and an accompanying tendency to expect all members of a particular subgroup to exhibit similar patterns of behavior. Thus persons with a low level of education are usually thought of as being nonparticipants, while it is assumed that persons with a high level of education generally exhibit high participation rates.

While such generalizations regarding participation patterns undeniably had a basis in fact and might be useful for broad descriptions of the behavior of various groups, they had several limitations. One such drawback was the tendency to lose sight of the differences within groups while focusing major attention on the differences among groups. Within the less educated group there were people who did participate; similarly, among the better educated there existed people who did not participate. As indicated, these people tend to be ignored in discussions of participation.

The clientele analyses studies had another limitation in that they dealt with single actions of individuals, not with their whole patterns of learning effort. Also, since every adult education institution was developed in terms of more or less explicit conditions that limited its clientele, participation studies from the institution point of view

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[1] Houle, The Inquiring Mind, pp. 6-7.

were not much more than countings of those who participated in the programs.

Brunner[1] cited the need for research that took as its starting point not the act of participation but the participant. Houle further challenged adult educators by stating that the theory and practice of adult education would not progress very far until they were based on an understanding of how mature people approach the tasks and opportunities of adulthood.[2]

Findings from studies which focused on the individual learner

Houle[3] is credited with having done the first study that focused on the individual's whole pattern of educational effort. His basic thesis was that the desire to learn, like every other human characteristic, is not shared equally by everyone. This thesis was upheld in his findings. From his results, Houle proposed a theoretical typology defining three major ideal types of participants in continuing education according to their learning orientations. Cautioning that these were not pure types, Houle classified continual learners as (1) goal-oriented: those who use education as a means of accomplishing clear-cut objectives; (2) activity-oriented: those who utilize adult education as a means of satisfying social needs; (3) learning-oriented: those who seek knowledge for its sake.

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[1] Edmund deS. Brunner, et al., An Overview of Adult Education Research (Washington: Adult Education Association of the U.S.A., 1959), p. 174.

[2] Houle, Inquiring Men, p. 21.

[3] Ibid.

Sheffield, Ingham, and Litchfield,[1] using different techniques of measurement, attempted to devise a meaningful scale on which the total educative activity of given individuals could be measured. Each investigator derived a total score of educational participation for each person studied. The scores were based on an individual's self-reporting of his actual performance in activities judged to be undertaken for purposes of education. Litchfield concluded that:

> There no longer appears to be any validity in the belief, long held by many adult educators, that there are participants and nonparticipants in adult education. All men and women partake of adult education to some extent. The focus now must be upon questions of the degree and kind of that participation.[2]

One of the most comprehensive studies focusing on the educational pursuits of American adults was a national survey[3] conducted by the National Opinion Research Center. Among other things, this study found the phenomenon of self-teaching was quite common among adults--this type of activity had never before been extracted from a national sample of the population. An estimated nine million adults in the United States carried on at least one self-instruction project during the year preceding the interview. The authors stated that the incidence of self-instruction among adults was "surprising" and "much greater than

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[1] Sherman B. Sheffield, "The Orientations of Adult Continuing Learners" (unpublished Ph.D. Dissertation, University of Chicago, 1962); Roy J. Ingham, "The Measurement of Educative Behavior and Its Relationship to the Life Satisfaction of College Alumni" (unpublished Ph.D. Dissertation, University of Chicago, 1963); Ann Litchfield, "The Nature and Pattern of Participation in Adult Education Activities" (unpublished Ph.D. Dissertation, University of Chicago, 1965).

[2] Litchfield, "Nature and Pattern of Participation," p. 188.

[3] [illegible], Volunteers for Learning.

anticipated." They suggested that "the category may well represent the most overlooked avenue of activity in the whole field."[1]

The Johnstone and Rivera study estimated that approximately one person in five had been active in some form of learning during the twelve-month period just prior to June, 1962. Of all adults who reported at least one educational activity during the year, approximately 8 percent had engaged in independent study.[2] When people were asked whether or not they had ever engaged in independent study since leaving school, 38 percent recalled at least one occasion on which they had tried to teach themselves something on their own.[3] This represented a substantial number of adults who had engaged in learning something on their own after leaving school.

This national survey also found that the incidence of self-instruction varied with age and with level of formal education. For example, 43 percent of all interviewees under thirty-five years of age reported self-instruction as one method, 44 percent of those between thirty-five and fifty-four did so, while only 14 percent of those over fifty-four did so. Also, 10 percent of all interviewees with only grade school education reported self-instruction as one method, 52 percent of those with a high school education did so, and 37 percent of those with a college education did so.[4]

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[1] Ibid., p. 37.

[2] Ibid., p. 4.

[3] Ibid., p. .

[4] Ibid., p. 44.

These differences in the preference for self-teaching among people of various educational and economic levels were found by asking adults to report on the past. Similar differences were found by asking adults to speculate about a hypothetical situation. They were asked how they probably would go about learning to speak a foreign language before traveling abroad. The respondents were divided into three groups according to income and education combined; 40 percent of the top group but only 17 percent of the lowest group said they would learn by themselves.[1] But it could be a mistake to conclude that people of high socioeconomic status are necessarily most likely to prefer informal learning contexts. The report pointed out that it is quite possible these persons mentioned individual study methods more often simply because they were very much more aware of the existence of these approaches. It suggested that persons of high and low socioeconomic status differ more in their knowledge about methods of independent study than in their information about school classes or lessons with private instructors. Johnstone believed that many respondents in the top group chose self-teaching because they had experienced learning in this way and felt competent; many of those in the lowest group who chose self-teaching were perhaps reacting against educational institutions.[2]

Certain types of subject matter were frequently self-taught whereas others were not. When all the self-taught subjects reported by the

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[1] Ibid., p. 66.

[2] Tough, "The Teaching Tasks," p. 37, citing a personal interview with John W. C. Johnstone conducted on August 17, 1964.

interviewees were classified, the category most frequently self-taught concerned the area of home and family. Fifty-nine percent of the learning efforts in this area were self-taught rather than learned by some other method. Forty-three percent of the courses and projects in hobbies and recreation were self-taught, as were 40 percent in general education, 30 percent in personal development, 25 percent in vocational subjects, 23 percent in public affairs, and 13 percent in religion.[1] A more detailed analysis of 49 types of subject matter found that at least 80 percent of all courses in technical arts and hobbies, gardening, and home improvement skills were self-taught.[2]

The incidence of independent study might well have been greater than was reported in the Johnstone and Rivera study. It is important to note that while all courses that involved instruction were recorded in the interview, the inventory only had space to record two subjects for independent study, although undoubtedly some people studied more than this on their own.

The interview question on which the independent study statistics were based was worded thusly:

> Up to this point, we've been talking about enrollment in courses and attendance at classes. During the past twelve months, have you tried to teach yourself some new subject matter or skill by means of independent study on your own?[3]

The interviewer merely accepted and recorded a response of "yes" or "no." No attempt was made to apply, or explain to the interviewee,

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[1] Johnstone and Rivera, Volunteers for Learning, p. 56.

[2] Ibid., pp. [illegible].

[3] Ibid., p. [illegible].

any criteria for deciding whether a particular example of learning should or should not be included. Interviewers merely asked one general question--they did not explain the question, encourage the respondent to consider various possible examples of his self-teaching, nor probe into the meaning of his responses. No additional information was collected concerning the learning materials and methods employed in self-teaching. Thus, many gaps still remained to be filled by other researchers.

Beginning with Tough's work in 1965, a systematic inquiry of the self-learner began to emerge. Allen Tough has probably pursued the study of self-planned learning more than any other single adult educator. His doctoral research[1] focused on the behavior of adults while planning their own learning projects. Tough found out that an adult can indeed perform the teaching tasks for himself and that he seeks help from a variety of sources while undertaking self-planned learning. A further study of the major reasons for beginning and continuing a learning project[2] has provided greater insight into an adult's conscious motivation at the time he begins a deliberate sustained effort to learn, and at the midpoint of the learning project.

Tough's most recent study[3] investigated the learning activities of a small group of adults. Intensive, probing interviews revealed

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[1] Tough, "Teaching Tasks." A report of Tough's dissertation is to be found in Allen M. Tough, _Learning Without a Teacher: A Study of Tasks and Assistance During Adult Self-Teaching Projects_ (Toronto: Ontario Institute for Studies in Education, 1967).

[2] Tough, _Why Adults Learn._

[3] Tough, _Learning Projects._

that these adults spent an average of 700 to 800 hours in deliberate learning projects per year. Approximately two thirds of this learning was self-planned--that is, planned, implemented, and evaluated by the learner himself, with some help from others.

None of the earlier studies uncovered as much self-planned learning as was found in the Tough study. Basically, these earlier studies uncovered only the learning efforts that the person could recall fairly quickly and easily. It was undoubtedly easier to recall a course or conference or discussion group than it was to recall most self-planned learning efforts. For this reason, many self-planned projects probably remained undetected in previous studies. To reduce this error, Tough used a probing, two-hour interview that tried several different ways of asking the person to recall additional projects. Despite his intensive efforts, Tough reported that "interviewers felt they failed to uncover all of the learning projects in some interviews and that perhaps self-planned learning is even more common than our figures indicate."[1]

Findings from Tough's study suggest that a large segment of our population does not use the traditional approaches to learning. The samples used by Tough were very small, however, and not all of them were chosen on a completely random basis from a large population. Despite the inadequacies of the samples, the data were encouraging enough to indicate that further research on self-planned learning could be valuable.

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[1] Ibid., p. 6.

Two studies are currently under way. The University of Tennessee is conducting a large study under contract from the Tennessee Valley Authority. This study is investigating the learning activities of a random sample of 400 adults in both a rural and an urban county of East Tennessee. Results should be available in late 1973. In a study in Canada, Fair[1] is concentrating on the learning efforts of first year elementary teachers in their roles as beginning professionals.

Four recently completed research projects have added knowledge about the learning behavior of specific adult groups. McCatty[2] studied a random sample of fifty-four Toronto, Ontario professionals in engineering, medicine and other professions. Johns[3] studied the learning activities of a random sample of thirty-nine practicing pharmacists in the Atlanta, Georgia metropolitan area. Denys[4] has investigated the learning projects of forty senior managers and teachers in Ghana. Johnson[5] studied the learning projects pursued by a stratified random sample of forty adults who had recently completed the requirements for a high

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[1] James Fair, "Teachers as Learners" (Ph.D. dissertation in progress, University of Toronto).

[2] Cressy McCatty, "Patterns of Learning Projects Among Professional Men" (unpublished Ph.D. dissertation, University of Toronto, 1973).

[3] Will Johns, Jr., "Selected Characteristics of the Learning Projects Pursued by Practicing Pharmacists" (unpublished Ed.D. dissertation, University of Georgia, 1973).

[4] Laurent Denys, "The Major Learning Efforts of Two Groups of Accra Adults" (unpublished Ph.D. dissertation, University of Toronto, 1973).

[5] Edwin A. Johnson, "Selected Characteristics of the Learning Projects of Adults Who Have Earned a High School Diploma and/or a High School Equivalency Certificate" (unpublished Ed.D. dissertation, University of Georgia, 1973).

school diploma or a high school equivalency certificate in Fort Lauderdale, Florida.

These four studies were essentially replications of Tough's study with different populations. Each study covered a period of twelve months prior to the interview and described learning efforts in all aspects of the respondents' lives.

The participation rate in each study was 100 percent--all interviewees had conducted at least one learning project. Tough reported a participation rate of 98 percent.

Learning for credit accounted for only 1 to 7 percent of the total number of learning projects undertaken in all studies except for recent high school graduates, who reported 23 percent of learning projects undertaken were for credit. They were involved in more formal schooling than the average adult--community college, full-time vocational programs or job advancement training mandatory for employment or state licensing.

Patterns of differences are apparent in the number of learning projects and in the amount of total participation time. Johns, McCatty, and Denys all studied learning activities of professional populations. The North American professional in these studies undertook at least eight learning projects per year which constituted about 1000 hours of learning activity. Parallel statistics for Ghanaian professionals showed approximately half as much activity. The recent high school graduates spent an average of 277 hours per year, which was comparable to Tough's findings.

The individual range of projects in the North American studies was also much larger than in the African study. McCatty found that two was the lowest number of projects for his professional subjects, that five respondents had participated in more than twenty-one projects, and that one respondent had been involved in as many as thirty-one projects in one year. The range for pharmacists was from one to twenty-two projects. Among his subjects, Tough found a range of one to twenty projects, an average of eight. The average number of learning projects for recent high school graduates was fourteen, the highest average for all studies.

The average project length clustered around 100 hours in all but the study of recent high school graduates whose average project length was 61 hours. The median project length in the McCatty and Denys studies (data not available for other studies) was approximately 50 hours, less than the median of 81 hours in the Tough study.

All studies reported a high incidence of self-planned learning--ranging from 56 percent in Johns' study to 76 percent in McCatty's. Tough reported 68 percent of the learning projects as self-planned. Group-planned projects ranked second in all studies with a range of 11 to 16 percent except for recent high school graduates--23 percent of their learning projects were group-planned. Individually-planned projects accounted for 6 to 14 percent; those planned by an inanimate resource (programmed learning, tape recordings, or television series) included 1 to 3 percent except for Johns' subjects; he reported that

19 percent of the projects undertaken by pharmacists were inanimate-planned. The large number of continuing education programs available on cassettes in the Atlanta area may explain why this population had a higher percentage of inanimate-planned projects.[1]

Findings from studies that have focused on the individual learner suggest that a large segment of the population uses many approaches to learning other than traditional ones such as enrolling in a course or attending an educational program for a group. Further studies of the self-learner and the ways in which he copes with his learning environment are needed to enable adult educators to facilitate this approach to learning.

Participation of young women

Adulthood is not a smooth process coasting along to old age. There are as many new problems to solve and new situations to grasp during the adult years as there are during childhood and adolescence. Adulthood is a developmental period. Every stage of life in modern society requires a person to learn new things if he is to live up to his own aspirations and the expectations that others have of him. These new things he must learn have been called developmental tasks.

Robert Havighurst is recognized as having made a significant contribution in developing the concept of developmental tasks and applying it to education and human development. Although Havighurst first used the developmental task concept for children and adolescents, he

[1] Telephone conversation with Will Johns, August 28, 1973.

later applied it to the adult years. This application was of interest in the present study.

A developmental task is a "task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks."[1] Whereas the developmental tasks of youth tend to be the products primarily of physiological and mental maturation, those of the adult years are the products primarily of the evolution of social roles. Havighurst divides the adult years into three phases--early adulthood, middle age, and later maturity--and identifies ten social roles of adulthood: worker, mate, parent, homemaker, son or daughter of aging parents, citizen, friend, organization member, religious affiliate, and user of leisure time. The requirements for performing each of these social roles change as a person moves through the three phases of adult life, thereby setting up changing developmental tasks and, therefore, changing readiness to learn.

The developmental tasks of early adulthood, pertinent to this study, include: (1) selecting a mate, (2) learning to live with a marriage partner, (3) starting a family, (4) rearing children, (5) managing a home, (6) getting started in an occupation, (7) taking on civic responsibility, and (8) finding a congenial social group.

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[1]Robert J. Havighurst, Developmental Tasks and Education (3rd ed.; New York: David McKay Co., 1972), p. 2.

Duvall[1] used the developmental task concept as a frame of reference for her family life cycle theory. She identified eight stages most families and therefore most women encounter. These eight stages begin with Stage I: Beginning Families (married couple without children) and progress to Stage VIII: Aging Families (retirement to death of one or both spouses). Two of these stages are pertinent to young mothers:

Stage II Childbearing families (oldest child, birth to 30 months)

Stage III Families with preschool children (oldest child, 2 1/2 to 6 years)

Havighurst has stated that "Of all the periods of life, early adulthood is the fullest in teachable moments and the emptiest of efforts to teach."[2] Reaching young homemakers has long been a concern and problem to adult educators. This is a very important audience for adult education to reach. Not only is it desirable for these young women to enhance their own personal development, but also adult education can help them enhance the important role they play in helping their children learn. The most critical ingredient of early learning is the attitude of parents. Young people's attitudes toward education are largely determined by the attitudes of their parents and the society immediately surrounding the young people. Parental participation in learning improves the chances that their children will accept the importance of education.

Very little has been known as to what extent mothers of young children continue their learning during this important period in the

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[1] Duvall, Family Development.

[2] Havighurst, Developmental Tasks, p. 63.

life cycle. Participation studies of the "clientele analysis" type have shown that young mothers have low rates of participation in institutional adult education programs. Data from the Johnstone and Rivera study suggested that participation might be strongly influenced by life-cycle position. When rates of participation were examined in relation to sex and age simultaneously, it was found that men under age thirty-five participated more often than did women in this group.[1] This finding may have reflected differences in the life-cycle roles of young men and young women. The differential occurred during the period in which young couples were establishing homes and having children, and when sex differential in family obligations and responsibilities probably reached a peak. In other words, the finding might be completely explained by the fact that young wives' activities away from home were more greatly curtailed than were those of their husbands.

The presence of children affected the participation rates of men and women quite differently. There was no difference between the activity rates of young men and women without children (29 percent each), but very substantial differences were noted between the participation rates of young fathers and young mothers (34 percent and 23 percent, respectively).[2] Parenthood seemed to have quite opposite effects on the educational activities of fathers. Whereas rates of study were lower among mothers than among nonmothers, they were actually higher among fathers than among nonfathers.[3]

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[1] Johnstone and Rivera, Volunteers for Learning, p. 90.

[2] Ibid., p. 91.

[3] Ibid., p. 91.

An examination of the different kinds of subject matter studied by mothers under age thirty-five as compared with nonmothers revealed that family responsibilities had the strongest effect on (1) vocational and (2) academic studies of young mothers. In these two areas, the rates of study of women under age thirty-five without children exceeded the rates of those with children by ratios of about three to one and two to one, respectively. These differences in vocational learning completely disappeared among women in the thirty-five to fifty-four age group. This reflected the return to the labor force of married women whose children no longer demanded their full-time attention.[1] In all other subject matter areas (home and family competence, recreation, religion, etc.), there were virtually no differences between mothers and nonmothers under age thirty-five.

Goble[2] studied the group learning activities of young homemakers who were members of Cooperative Extension clubs and nonclub members. She reported that one problem of young homemakers with reference to participation in learning groups was that the homemaker felt her husband, mother, and close friends doubted the usefulness of what was learned.[3] In other words, women who belonged to such groups had motives other than learning useful subject matter. Young homemakers likewise believed that members of their close reference group (husbands, mother figures, and contemporaries) disapproved to a substantial degree of their

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[1] Ibid., p. 32.

[2] Eva L. Goble, "The Participation of Young Homemakers in Group Learning Activities" (unpublished Ph.D. dissertation, University of [illegible]).

[3] Eva L. Goble, "Young Homemakers and Extension," Journal of [illegible], 43 (Fall, [illegible]), 139.

participation in such clubs or group activities. The projected disapproval was most marked in relation to the husband's attitude. Club members were older, had higher incomes and more education, and had been married longer. Fewer of them had children less than two years old. Forty-six percent of the club members and 50 percent of the nonmembers indicated they were well satisfied with their performance in the particular role they chose as most important among the choices given them of wife, mother, or homemaker. Of those who indicated dissatisfaction with their performance in the role chosen as most important, only 10 percent of the members and 6 percent of the nonmembers mentioned learning as a means of improvement. Obstacles to group learning mentioned by the 269 Indiana young homemakers were lack of knowledge of programs in which they might participate, responsibility for care of children, interference with husbands' work schedules, lack of groups of appropriate composition, lack of groups located in the community, lack of confidence in their own group skills, belief that programs are designed for older women, fear or dislike of organizational commitments, and lack of an invitation to participate.

The foregoing analysis of data reflected the participation of young mothers in institutional adult education programs. There has been only one investigation of the total learning activities of young mothers from an individual focus--mothers interviewed as one of seven samples in the Tough study.[1] The ten mothers interviewed were obtained

[1] Tough, Learning Projects.

through a sample representative of one upper middle-class neighborhood. During the year before the interview, each woman's primary occupation was that of mother and homemaker. Each mother had at least one young child who was not yet attending school or nursery school. This group was below the average of the total sample in both the number of learning projects conducted and the average time spent at learning. They conducted a mean of 7.2 learning projects (median 6.5) as compared with a mean of 8.3 learning projects (median 8) for the entire study. In regard to total number of hours for all learning projects, the mean for this group was 331 hours (median 273) in comparison with a mean of 816 hours (median 687) for the entire study.[1]

The findings pertaining to participation in self-planned learning and in organized adult education programs have been consistent in that mothers of young children engage in fewer continuing education activities than other categories of adults. While the stage of the family life cycle seems to be the most important variable, other factors such as educational level, attitude towards school, labor force status, social position, and husband's attitude toward group learning may be associated with the rates of participation.

Relation of Previous Research to the Purpose of the Study

Traditionally, adult educators have been concerned only with the pro[illegible] of adult learning that takes place in organized programs in

[1]Ibid., p. 70.

institutions. Recent research has confirmed the fact that much learning takes place in a self-planned fashion outside of the institutional framework of adult education. Thus, adult educators can no longer subscribe to the belief that self-planned learning is beyond the range and responsibility of adult education institutions. Indeed, the research has pointed out that persons engaged in self-planned learning need and want help with their learning. Inadequate help results in countless wasted hours, inappropriate projects, and inefficient methods.[1]

Self-planned learning seems to be an extensive activity; it may become even more prevalent. It may turn out to be a very efficient way for adults to learn skills and knowledge that are needed. But it may be that different groups have different capacities for this activity based upon a number of factors such as attitudes of spouses, attitudes toward schooling, amount of time available, and stage in the family life cycle. Because this poses very serious policy questions for adult education, further research in this area is needed with different groups.

The studies previously cited have shown the rates of participation in institutional adult education programs by mothers of young children to be low. Other than this, very little has been known about the extent to which they continue their learning during this important period in the life cycle. Further research into the learning activities of young mothers has been needed to better understand how they learn on their own, how they organize their resources, and how they plan their learning activities.

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[1] *Ibid.*, p. 20[illegible].

Research Questions

With these considerations in view, the questions to be answered were formulated.

1. How much learning was undertaken in the past twelve months?
2. What were the relationships among certain personal and socio-economic characteristics--age, level of education, attitude towards school, family status, labor force status, family income, social position, and husband's attitude towards wife's learning--and the extent and kind of learning activities conducted?
3. What broad educational purposes were most important--learning for occupational, vocational, and professional competence; personal or family competence; social and civic competence; self-fulfillment?
4. Who or what was the major planner for the learning projects?
5. How much learning was self-planned? What was the extent of self-planned learning in each area?
6. For the self-planned projects conducted, what were the reasons why the learner planned the project rather than relying on an "outside" planner? At what point(s) within the learning projects would the learner have liked more help?
7. Who or what was the primary subject matter resource for the learning projects?
8. What aspects of the delivery system of institutional adult education were used?
9. What additional learning would they like to undertake in the next twelve months?
10. What were the obstacles blocking learning?

Definition of Terms

For the purpose of this research, the following definitions of terms were used:

Knowledge and skill

This term was used as a convenient way of referring to the entire range of behavioral changes--cognitive or intellectual, attitudinal or emotional, perception and understanding, psychomotor or physical skills (including habits).[1]

Learning episodes

Learning episodes were the basic units around which the concept of a learning project was constructed. Tough defined a learning episode as a well-defined period of time where the person's primary intention at the beginning or very early in the episode was to gain knowledge and skill and retain it for at least two days.[2] The focus was on only the person's deliberate efforts to learn, (i.e., the episodes in which his desire to learn or change was stronger than any other motivation such as to be entertained or to engage in social activity in a group).

Learning project

The basic concept used for assessing and measuring the deliberate learning efforts of the mothers in this study was the learning project. It was defined as a series of clearly related learning episodes,[3] adding up to at least one hour. Tough set a minimum time limit of seven hours for a learning project but since no empirical data existed which could be used to provide a time criterion, the time limit was set at one hour for this study.

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[1] Ibid., p. 4.

[2] Ibid., pp. 7-8.

[3] Ibid., p. 6.

Estimated time spent in learning project

The estimated time spent in a learning project was calculated by adding together the time spent in (1) deciding and planning--what to learn, how to go about the learning, where to get help or advice, and evaluating progress; (2) traveling and arranging--traveling time to a meeting or library, finding the right book or person, arranging appropriate conditions for learning, or skimming material to find relevant items for a learning episode; and (3) learning effort.

Major planner of learning project

Prior to undertaking a learning project, the learner himself had to decide whether to proceed with the learning project and what (generally) should be learned. Another basic question he faced at the beginning of a learning project was who would be responsible for the detailed planning--what and how he should learn during each episode. Tough adopted the label "planner" to refer to the person or thing that did most of the detailed day-to-day planning in the learning project.

He defined the concept of planner[1] as the person or thing responsible for the majority of the learning episodes of a learning project. The planner was responsible for more than half of the detailed day-to-day planning and deciding in a learning project. The planner made the majority of the decisions about what to learn (the detailed knowledge and skill) in each learning episode, and/or about how to learn (the detailed strategy, activities, and resources). In addition, the planner

[1] Ibid., p. 7.

may have also decided when to begin each learning episode, and the pace at which to proceed. The concept of planner was intended to classify the source of the plans and decisions, not the source of subject matter or the methods of learning.

Tough distinguished four types of planners[1] that were possible from the learner's point of view:

1. Self-planned learning. In some learning efforts the learner himself assumed primary responsibility for planning not only the why, but also the what and how to learn, when to learn, and where to learn. He might seek help and advice about these decisions from a variety of individuals and materials, but he retained the control of and responsibility for deciding what resources and activities to use each time.
2. Group-planned learning. The learner might decide to attend a group and let the group (or its leader or instructor) decide what and how to learn. The group must have a minimum of five persons. Examples included a course, workshop, conference, or informal group of people with common interests.
3. One-to-one learning. In some learning efforts, the planning and deciding of what to learn and in what order was handled by one person, who helped the learner in a one-to-one situation. That is, there was one helper (or instructor, teacher, expert, or friend) and one learner. These two persons interacted, usually

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[1] Ibid., pp. 97-99.

face-to-face, although it could be by telephone or correspondence. Even if as many as four learners were receiving individualized attention from one other person at the same time, it was included in this category.

4. Resource-planned learning. In these learning projects, the major part of the detailed directions as to what to learn and what to do at each session resided in some material resource (e.g., a programmed instruction book, a set of tape recordings, or a series of TV programs). The learner followed the programs or materials and they told him what to do next. Tough called this planner type a nonhuman resource. Other researchers have named it object-planned, or inanimate-planned.

In most learning projects, there is clearly a single planner. A few learning projects, however, may not be clearly marked by a major planner. If no one planner was responsible for the majority of decisions, Tough[1] classified the learning project in a residual category called mixed planning.

Primary subject matter resource

The subject matter resource was the person or thing that provided the majority of the subject matter information for the learning project. The four categories of subject matter resource used in this study were:

[1] Ibid., p. 50.

1. Group. The group category included any self-formed group of peers who conducted their activities without a professional instructor, as well as any group led by a trained leader or instructor. The subject matter resource could be either the group members or the instructor.

2. Individual. The individual resource category included intimates (relative, friend or neighbor) or paid or unpaid experts who were not members of a group.

3. Printed material. This category included any subject matter presented in printed form such as books and pamphlets, magazines, newspapers, or programmed materials.

4. Media. The media subject matter resource category included television, radio, films, recordings, displays, and exhibits.

CHAPTER III

METHODOLOGY

Overview

This chapter is devoted to the methodology of the study. It includes the detailed information pertaining to sample selection, development of the survey instrument, data collection, and data analysis.

Sample Selection

The population for this study was a particular group of adults, i.e., mothers whose oldest child was not yet in school. The sample was composed of mothers residing in the suburban school district of North Syracuse, located in Onondaga County, New York. This district was selected because it had its 1972 school census data computerized by family and by age of the oldest child; it was accessible and fit in with the economic dimension of close proximity.

The computer print-out provided by the school district consisted of 959 families whose oldest child was born between January 1, 1968 and July 30, 1972. Thus, the age of the oldest child of families in this list ranged from nine to sixty-four months.

From the master list, two lists were prepared. List 1 included 496 families whose oldest child was born between November 1, 1970 and

July 30, 1972. List 2 included 663 families whose oldest child was born between January 1, 1968 and October 31, 1970. List 1 became Group 1; List 2 was classified as Group 2.

Evelyn Duvall's family life cycle theory[1] was the basis for deciding to control for the age of the oldest child. The rationale for having two groups was based on the assumption that the developmental stages of children may alter the nature of the learning activities of their mothers. Duvall's family life cycle Stage II where the oldest child is between birth and thirty months, and Stage III where the oldest child is thirty months to six years provided the basis for determing age criteria for this study's two groups.[2]

A stratified random sample of twenty-five subjects from each group was selected to be interviewed. The rationale for selecting a total sample size of fifty interviews (i.e., twenty-five subjects for each group) was based on two premises. First, Tough's experience in conducting similar research indicated that a pattern of learning activities for a specific group seems to be established after about twenty-five interviews and this pattern does not change much after that.[3] Secondly, because of the intensive, probing type interview to be employed in the study, this researcher felt it was important to conduct all interviews herself. In this way, error due to variation in interviewer-respondent interaction, and also interviewer error in asking questions and recording data would be minimized. Weighing these two factors, it was

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[1] Duvall, Family Development.

[illegible], p. [illegible].

[3] [illegible] Allen Tough, January 16, 1973.

determined that fifty interviews would be sufficient for determining a pattern of learning activities and would also be within the time limit set for collecting data.

To be included in the study sample, subjects met the following criteria:

1. Had to reside in the North Syracuse school district at the time the study was undertaken.
2. Had to be of the white race, since the school district was predominantly white.
3. Could not have been in school full time for one year prior to time of the interview since full-time schooling experience might confound the results.
4. For Group 1, the oldest child had to be less than thirty months old and for Group 2, oldest child had to be between thirty months and six years old, so that differences associated with the two family life cycle stages could be tested.

To allow for losses due to high mobility of this population and also for refusals, a random sample of fifty names was drawn from each of the two lists using the computer. Each name was checked against the telephone directory to obtain a telephone number and also to verify address. If no telephones were listed, a check was made with the information operator to determine unlisted numbers and telephone disconnects. Post office searches were conducted for each address change to determine if the subject had moved out of the school district. A new telephone directory was issued shortly after the initial check; all names were rechecked for further telephone or address changes. A direct contact was made at the home of seven of the eight subjects who had

unlisted telephones. The remaining subject resided on an Air Force base and a direct contact was not possible.

The Survey Instrument

The complete survey instrument[1] consisted of two parts: (1) an interview schedule, and (2) a demographic questionnaire. The interview schedule employed a semistructured interview format; the demographic questionnaire, a structured interview format.

A revised version of Tough's interview schedule[2] was used for conducting the portion of the interview related to learning projects conducted during the past year. It was Tough's belief that previous studies of adult participation in learning activities did not detect many self-planned learning projects because those studies uncovered only the learning efforts that a person could recall fairly quickly and easily. The interview schedule he designed called for a probing interview with the learner. In his interviews, he used long lists of subject matter and learning methods to stimulate recall. Instead of asking only one general question, he tried several different ways of asking the person to recall additional projects. A two-hour interview was devoted exclusively to discovering all the person's learning projects during the preceding year, and to gathering certain basic data about those projects.

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[1] Copy is in appendix B, p. 187.

[2] Allen M. Tough, "Interview Schedule for a Study of Some Basic Characteristics of Learning Projects in Several Populations" (Toronto: Ontario Institute for Studies in Education, April, 1970).

Tough developed his basic interview schedule in September, 1969. He revised it in October and again in November of that same year. It then was used in studying several populations. During these interviews, the need for a few additional changes became evident. These minor changes were incorporated by Tough in a fourth version produced in April, 1970.

For the purposes of this study, some revisions were made in the fourth edition of the interview schedule by the investigator. The major change was the elimination of the seven-hour minimum requirement for a learning project to be reported. In this study, a minimum time limit of one hour was set because no empirical data existed that could be used to provide a time criterion for limiting the time spent in a learning activity. It was felt that mothers might have many deliberate learning projects of less than seven hours. Also, several additional questions were added to the interview schedule. These included: (1) who provided the major subject matter source of information, (2) what learning projects were planned for the next twelve months, (3) what obstacles in learning were encountered, and (4) for self-planned projects, what additional help was needed and why the learners chose to plan the learning project themselves rather than rely on an "outside" planner.

The demographic questionnaire was designed by the investigator. It was critiqued by fellow graduate students, selected faculty, and an evaluation expert. The revised interview schedule and demographic questionnaire were then pretested in trial interviews conducted with

four mothers who met the same criteria as called for in the study sample. Since the basic interview schedule had already been tested by Tough, the purpose of these trial interviews was to determine if further revisions of the interview schedule were appropriate and whether there were any problems in interpretation. Tapes of these interviews were reviewed and evaluated by the interviewer as criteria to determine the appropriateness of the instrument. Questions needing clarification and interviewing techniques were discussed with Allen Tough.[1] After making further refinements in the demographic questionnaire, an additional trial interview was conducted. As results of this trial interview were satisfactory, plans were made to proceed.

Data Collection

A two-color card system was prepared to record information about the two groups. Each card[2] listed name of a subject, her address, the number of children by birthdate, and additional information needed later when telephone contacts were made. Each subject was given a three digit code number. The first digit designated Group 1 or 2; the next two digits designated the interviewee number 1 to 50.

Initial contact was made by letter.[3] This letter briefly explained the study, the time required for the interview, the option of reimbursement for a baby-sitter, and the promise of an honorarium of $5.

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[1] Conference with Allen Tough, March 6, 1973.

[2] Copy in Appendix B, p. [illegible].

[3] Copy in Appendix A, p. [illegible].

A draft of the letter was critiqued by two mothers who had participated in the trial interviews. Only twenty letters were mailed at a time (ten from each of the two groups) so that a telephone contact could be made within a week to set up interviews. After the first twenty were contacted and interviews were underway, the next twenty letters were mailed. In this way, an approximately equal number of interviews from the two groups was completed during each stage of the interview period. This was planned to minimize error due to increased interviewing skill.

When telephone contacts were made, three refusals that were possibilities for later recalls were marked. Midway through the interviewing period, these subjects were called again and all three agreed to an interview.

Interview format

Interviews were conducted in a five-week period during April and May, 1973. All interviews were held in the home of the subject and were conducted by the researcher. The interview setting was comfortable and informal, but not always private and quiet. Although interviewees had been offered the option of reimbursement for a baby-sitter, only two took advantage of the offer. Children were present in approximately one-third of the interviews but even though there were occasional interruptions, the interviewees still maintained their primary attention to the interview.

In initiating each interview, the interviewer introduced herself, the study, and its purpose. Since most interviewees had appeared suspicious of the motive behind the interview when telephone calls were made to set up appointments, a special attempt was made to establish the kind of friendly relationship that would permit the interviewer to ask and get truthful answers to questions on the schedule. A letter of introduction from the researcher's dissertation committee chairman was helpful in legitimizing the purpose and assuring the subject that no personal questions would be asked and that her name would not be used.

When a relaxed working atmosphere had developed, the interviewer proceeded with the interview. The average interview took 85 minutes, though the range was from 40 minutes to 2 hours and 10 minutes (130 minutes). The variation in learning projects reported by the subjects accounted for the wide range in interview time.

During the first few minutes of an interview, helping the subject identify her learning projects was a challenging task. Few people called their learning projects by that name; many did not even apply the term "learning" to their efforts. However, most interviewees grasped the concept quite quickly and expressed surprise they had learned so much during the previous year. The probe ideas employed in the interviews were helpful aids to assist subjects in recalling learning projects.

Interviewees were cooperative and no one refused to answer anything, even the usual sensitive question on family income. The interviewer never had the feeling that the subject was anxious to terminate the interview. It was the researcher's opinion that the honorarium of five dollars was a positive factor in creating willingness to spend up to two hours in an interview.

At the time of interviewing, the interviewer made a number of observations which were not recorded on the interview schedule. Immediately following each interview, these impressions were recorded on the subject's index card.

Interview response

Of the 100 names drawn in the study sample, 25 were eliminated because the subjects had moved out of the school district. This left 75 subjects who met the residence criterion set forth for the study. A summary of the disposition of each is presented in Table 1.

Forty-eight usable interviews were completed (twenty-four from each group). It would have been necessary to draw another sample to complete the two additional interviews needed to reach the fifty cases originally specified in the study. Since Tough's experience in finding that a pattern of learning activities seems to be established after about twenty-five interviews, the decision was made to limit the study to forty-eight cases.

TABLE 1.--DISPOSITION OF SAMPLE

Category		Group 1	Group 2
Completed interviews		24	24
Interview eliminated[a]		..	1
Interview scheduled but not completed[b]		1	..
Unable to contact[c]		2	1
Refused		10	12
	Subtotal	37	38
Moved out of district		13	12
	Total	50	50

[a]This interview was conducted at the subject's place of employment on her request, and was conducted under poor conditions.

[b]This subject cancelled her appointment once, was not at home for the rescheduled interview, and could not be contacted in the next two weeks.

[c]The one subject in Group 2 who had an unlisted telephone number and resided on an Air Force base was the only one where no contact was made. A direct home contact was made for the two in Group 1. In one case no one was at home and a note was left; in the second a message was left with the husband. Neither subject called back as requested.

The refusal rate was 29 percent. This was lower than anticipated because subjects suspected that the interviewer was indeed a saleswoman looking for an easy access into their homes. Of the twenty-two refusals, one subject was moving that week and two others had new babies. In two instances, the husbands refused to let their wives be interviewed; two other subjects were fearful of letting anyone into their homes. Of the remaining fifteen, three gave no reason, one was not interested, and ten indicated they were too busy.

Data Analysis

A data analysis sheet that followed the outline of the interview guide was developed to facilitate uniform recording of data and later tabulation. The interviewer categorized and coded for keypunching all data immediately following each interview. This resulted in a consistency in interpretation and eliminated the possibility of error in transposing data to coding forms. Coding was checked by a second person and discrepancies were referred to the interviewer for correct coding. There was not a single case of missing data.

Data were keypunched, verified, and listings made on an IBM computer to check coding errors and inconsistencies. Contingency checks were made to determine that editing and coding were consistent, and that mathematical calculations were correct.

Data were analyzed on an IBM-360/65 computer, using the Statistical Package for the Social Sciences (SPSS) computer program. The forty-eight cases in this study were divided into two independent samples of equal size.

The two groups were compared for statistical differences in six personal and socio-economic characteristics through the chi-square test of independence; these six characteristics were family status, education, attitude towards school, labor force status, family income, and parental attitude toward child's learning. To determine any significant difference between the two groups in two additional characteristics,

age and social position, t-tests were done. An alpha level of .05 was established as the acceptable significance level for the statistical tests used.

The following recommendations made by Cochran[1] regarding the use of the chi-square test were followed:

1. In a 2 x 2 table with N less than 20, use Fisher's exact test instead of X^2.
2. In a 2 x 2 table with 1 degree of freedom and N greater than 40, use X^2 corrected for continuity.
3. In all other situations, X^2 may be used if fewer than 20 percent of the cells have an expected frequency of less than 5 and if no cell has an expected frequency of less than 1. If these requirements are not met by the data in the form in which they were originally collected, the researcher must combine adjacent categories in order to increase the expected frequencies in the various cells.

The SPSS computer program[2] applies the Fisher exact test for 2 x 2 tables when there are fewer than 21 cases. Yates' corrected chi-square is applied to all 2 x 2 tables.

Summary statistics--distribution, range, mean, and standard deviation--were computed for the number of learning projects conducted

[1]S[illegible], Non[illegible] Statistics for the Behavioral [illegible] (New York: [illegible]-Hill, [illegible]), p. 110, citing William G. Co[illegible], "[illegible] the Common X^2 Test," [illegible], 10:[illegible] ([illegible], 19[illegible]), 417-[illegible]1.

[2]Norman [illegible], [illegible] H. [illegible], and C. [illegible] Hull, SPSS--Statistical [illegible] (New York: McGraw-Hill, 1970), p. [illegible].

and total estimated time spent on learning projects. To determine significant differences between the two groups in these variables, t-tests were done.

A measure of the strength of association between each of the eight personal and socioeconomic characteristics and the number of learning projects and estimated time spent was made using Cramer's V.

Frequency counts and measures of central tendency were calculated for remaining items. The small number of cases in the study made it possible to do further hand tabulation analyses.

Limitations of the Study

1. This study was limited to forty-eight cases of young mothers who resided in a suburban school district that was predominantly white. Therefore, efforts at generalizing results to any or all populations nationwide must be done with extreme caution.
2. The study was subject to the general limitations of the interview approach, especially since much of the information was based on recall of activities that were from one to eleven months old.
3. The basic limitation was a problem inherent in social research. The problem is the ability to get true responses due to unwillingness of subjects to reveal information to unknown interviewers or to their inability to verbalize.
4. No attempt was made to verify the accuracy of the interviewees' [illegible]. It was possible, therefore, that their learning

behavior could have been different from what was reported in the interview. However, verbal reports can be accepted as valid research data.[1]

5. Judgments were made on the basis of data obtained from those who agreed to be interviewed. There was no way to determine whether the 29 percent who refused were indeed different.

Summary

This chapter has been devoted to the methodology of the study. It began with a description of the population and methods used for selecting the sample. Development of the data collection instrument was described as was the procedure used in collecting data. The concluding section presented the data analysis plan.

W. J. Goode and P. K. Hatt, Methods in Social Research (New York: McGraw-Hill Book Company, Inc., 1952), p. 146.

CHAPTER IV

PRESENTATION OF THE FINDINGS

Overview

This chapter is devoted to the presentation of the results of the data analyses. The topics discussed in the chapter are as follows: characteristics of the sample, extent of learning undertaken in the past year, learning for credit, types of subject matter studied, major planners, primary subject matter resource, degree of satisfaction with learning projects, and comparison with other studies.

Characteristics of the Sample

The results of this study were based on data obtained from interviews with 48 women who resided in the North Syracuse School District which is located in Onondaga County, New York, an urban county of 473,000 residents. The school district[1] covers 64 square miles located north of Syracuse, a city with a population of 197,000. The area covered by the school district is primarily suburban and includes 15,160 family units with a total population of 46,228.

The North Syracuse district is one of the largest centralized school districts in New York State and operates on a yearly budget of

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[1]All information about the North Syracuse School District was obtained in an interview with Mr. Ray Doin, Public Information Advisor, July 11, 1977.

$19 million. Ninety-eight percent of its 13,400 students are bussed to one of the district's thirteen schools. It is a transient area with an estimated annual mobility rate of 25 percent. There is no major industry located within the district, although several are located adjacent to it. The school system itself is the largest employer within the district. The average socioeconomic status of its residents is just below average middle class.

In the following sections, characteristics of the study sample will be presented. Also, the statistical tests used to compare the two groups on eight personal and socioeconomic characteristics will be reported. The tests were made because of the potential relationship of these variables with the amount of learning undertaken. Group 1 consisted of twenty-four mothers whose oldest child was under thirty months; Group 2 was composed of twenty-four mothers whose oldest child was between thirty and sixty-four months.

Residence

Ninety-eight percent of the study sample resided in an urban area--either in the village of North Syracuse or in a builtup residential section surrounding it. Only one subject lived in the open country; none resided on a farm.

Young families are viewed as highly mobile, moving from place to place more frequently than their elders. Yet 40 percent of the study families had resided in Onondaga County their entire lives; another

19 percent had lived there longer than ten years. Only 4 percent had moved into the county less than three years ago; the remaining 38 percent were residents between three and ten years.

Response to the question of "how long have you lived at your present address" showed a different pattern of mobility. Both patterns are summarized in Table 2.

TABLE 2.--LENGTH AND PLACE OF RESIDENCE

Number Years	Place of Residence	
	Onondaga County (Percent)[a]	Present Address (Percent)[a]
Less than 1	..	21
1-2	4	33
3-5	23	27
6-10	15	12
More than 10, but not entire life	19	6
Entire life	40	..
Total	101	99

[a]Percentages rounded to nearest whole number in this and all succeeding tables.

Thus the mobility pattern for the majority was not one of moving in and out of the county as much as it was moving within the county. Getting married, starting their own home, and then later purchasing a house would be important factors accounting for the high percentage of this age group who have lived at their present address a short time.

Family status

A majority of the mothers, 98 percent, represented a two-parent home. There was one case in each group of a one-parent family. The data are summarized in Table 3.

TABLE 3.--FAMILY STATUS

Family Status	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Two-parent	46	96	23	96	23	96
One-parent	2	4	1	4	1	4
Total	48	100	24	100	24	100

X^2=0.52174 df=1 P=.4701

There was no statistically significant difference between the groups on family status, since the X^2 value of 0.52 was not significant at the .05 level.[1]

Number of children

The number of children ranged from one to three. Slightly more than one-half of the sample had only one child while 44 percent had two children. Since the study controlled for the age of the oldest child, there was a considerable difference in the two groups. The data are presented in Table 4.

[1] As noted in Chapter III, an alpha value of .05 was established as the acceptable significance level for the statistical tests used.

TABLE 4.--NUMBER OF CHILDREN

Number children	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
1	25	52	17	71	8	33
2	21	44	7	29	14	58
3	2	4	..	..	2	8
Total	48	100	24	100	24	99

Twice as many mothers in Group 1 had only one child as compared with Group 2; the opposite pattern was true for two children. No subject in Group 1 and only 8 percent of the Group 2 mothers had three children.

Age of oldest child

The age range of the oldest child for the sample was 9 to 64 months. The data are summarized in Table 5.

The sample selection was controlled for the age of the oldest child. For Group 1, where the age was controlled for under 30 months, the range was from 9 to 29 months. For Group 2, the age was controlled for 30 to 64 months; the range was from 32 to 64 months. Thus, the results of this study can be applied to mothers who have children between 9 and 64 months of age.

TABLE 5.--AGE OF OLDEST CHILD

Age in Months	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
6-11	3	6	3	12	.	..
12-17	3	6	3	12	.	..
18-23	6	13	6	25	.	..
24-29	12	25	12	50	.	..
30-35	4	8	..	..	4	17
36-41	5	10	..	..	5	21
42-47	5	10	..	..	5	21
48-53	3	6	..	..	3	12
54-59	6	13	..	..	6	25
60-65	1	2	..	..	1	4
Total	48	99	24	99	24	100
Mean[a]	33.6		21.5		45.7	
Median	30.5		23.5		43.5	
Range	9-64		9-29		32-64	

[a]Measures of central tendency computed from raw data.

Age of subjects

While the age range was from 20 to 42 years, approximately 80 percent were 28 years or younger. Data for age distribution of the total sample and by groups are summarized in Table 6.

The average age for the total sample was 26; the average for both Group 1 and Group 2 was also 26. The median age was 25 for both the total sample and two groups. The two groups were compared for a statistically significant difference in age by the t-test for two independent samples. A comparison of the mean ages revealed no significant difference. This is recorded in Table 7.

TABLE 6.--AGE DISTRIBUTION OF SUBJECTS

Age	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
20	2	4	2	8	.	..
21	1	2	.	..	1	4
22	1	2	1	4	.	..
23	3	6	.	..	3	12
24	10	21	5	21	5	21
25	9	19	5	21	4	17
26	6	13	2	8	4	17
27	3	6	1	4	2	8
28	4	8	3	12	1	4
29	1	2	1	4	.	..
30	4	8	1	4	3	12
...						
33	3	6	2	8	1	4
...						
42	1	2	1	4	.	..
Total	48	99	24	98	24	99
Mean	26.2		26.5		25.8	
Median	25.3		25.3		25.2	
Mode	24		24 and 25		24	
Range	20-42		20-42		21-33	

TABLE 7.--DIFFERENCE BETWEEN THE TWO GROUPS IN AGE OF SUBJECTS

Group	Mean	Standard Deviation	Standard Error	t	Degrees Freedom	Probability
1	26.5	4.653	0.950	.68	46	0.501
2	25.7	2.788	0.568			

Educational Level

The educational level of the sample ranged from eighth grade to graduate study. All but three subjects had a high school diploma;

48 percent had taken work beyond high school. Approximately 20 percent were college graduates. The median years of schooling was 13 for the total sample, 14.1 for Group 1, and 12.8 for Group 2. The data are summarized in Table 8.

TABLE 8.--EDUCATIONAL LEVEL OF SUBJECTS

Years of School Completed	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
7 years or less	..	..	.	..	..	..
8	1	2	1	4	..	..
9-11	2	4	1	4	1	4
12	22	46	8	33	14	58
13-15	14	29	7	29	7	29
16	7	15	6	25	1	4
17 years or more	2	4	1	4	1	4
Total	48	100	24	99	24	99
Median	13		14.1		12.8	

X^2=2.47 df=2 P=.2500

In order to use the chi-square test to compute a statistical comparison of the two groups, it was first necessary to combine the data into three categories--12 years or less, 13-15 years, 16 years or more. There was no statistically significant difference between the two groups or educational level, since the X^2 value of 2.47 was not significant.

A comparison of the educational level of the study sample with 1970 U.S. Census data for white females aged 20 to 34 is summarized

in Table 9. This age range of 20 to 34 included all but one subject who was age 42; it was decided not to include the next Census age range of 35 to 44 for this one case.

The median of 13 years of school completed for the study sample was slightly higher than the 12.6 median for all white females aged 20-34. The study sample was underrepresented in women with less than a high school diploma and overrepresented in the number who had some college or were college graduates.

A point uncovered when first comparing educational level data from this study with Census data bears mentioning. According to Census definition,[1] a person who completed a two-year business school is classified as having completed 12 years of schooling while a person who completed a two-year business course in a community college is classified as having completed 14 years. Educational level data gathered in this study originally classified vocational training beyond high school as equivalent with college. The study data were recomputed using the Census definition in order to make valid comparisons of data summarized in Table 9.

General attitudes about school

Interviewees were asked an open-ended question concerning their attitudes toward school. Responses were classified in one of five categories -- enjoy school a great deal, quite a bit, somewhat, not

[1] U.S. Bureau of the Census, 1970 Census Users' Guide, Part 1 (Washington, D.C.: Government Printing Office, 1970), p. 9-6.

very much, or not at all. The interviewee then confirmed the classification of her response. The data are summarized in Table 10.

TABLE 9.--COMPARISON OF EDUCATIONAL LEVEL OF STUDY SAMPLE WITH 1972 U.S. CENSUS DATA FOR WHITE FEMALES AGED 20-34

Years of School Completed	Coolican study (Percent)	U.S. Census (Percent)[a]
7 years or less	..	3
8	2	3
9	..	4
10	2	6
11	2	4
12	46	49
13	8	7
14	19	7
15	2	4
16	15	10
17 or more	4	3
Total	100	100
Median	13	12.6

Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 243, "Educational Attainment: March 1972" (Washington, D.C.: Government Printing Office, 1972), p. 14.

[a]Percentages and median computed from raw data for three age groupings.

Slightly more than 60 percent gave a positive response of "enjoyed quite a bit" or "enjoyed a great deal"; about 25 percent of the responses fell into the neutral category of "enjoyed somewhat." Only 10 percent of the total sample responded negatively.

In order to apply the chi-square test for a statistical comparison of the two groups, it was necessary to combine the five categories into

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two--positive attitude, and neutral or negative attitude. There was no statistically significant difference between the two groups in attitude towards school.

TABLE 10.--GENERAL ATTITUDE ABOUT SCHOOL

	Total Sample		Group 1		Group 2	
Enjoyed School	Number	Percent	Number	Percent	Number	Percent
Great deal	17	35	10	42	7	29
Quite a bit	14	29	8	33	6	25
Somewhat	12	25	5	21	7	29
Not very much	2	4	..	..	2	8
Not at all	3	6	1	4	2	8
Total	48	99	24	100	24	99

X^2=1.45730 df=1 P=.2274

Social position

Social class was determined using the Hollingshead two-factor index of social position.[1] The factors of Occupation and Education were first scaled according to a system of scores. Next the two factors were combined by weighing the individual scores obtained from the scale positions. Scores that fell into a given range were assigned one of the five categories of social class.[2] All computations of social position were checked by a researcher who had experience using this scale.

The summary of the classification of social class of the total sample by the two groups is presented in Table 11.

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[1] August B. Hollingshead, Two-Factor Index of Social Position (New Haven: Yale University Press, 1957).

[2] The [illegible] Hollingshead two-factor [illegible] C, p. [illegible].

TABLE 11.--SOCIAL POSITION[a]

Categories	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Social Class 1	1	2	..	..	1	4
Social Class 2	8	17	4	17	4	17
Social Class 3	22	46	13	54	9	38
Social Class 4	14	29	6	25	8	33
Social Class 5	3	6	1	4	2	8
Total	48	100	24	100	24	100

[a]Based on Hollingshead two-factor index of social position.

The mean or average for the study sample and also for both groups was Social Class 3. The median and the social class which occurred most often for the entire sample and both groups were also Social Class 3.

Hollingshead did not assign labels to his five categories of social class. A better understanding is obtained however by knowing the occupational and educational level limits for each category.[1] The range limits for Social Class 3 are: occupational level may range from lesser professional to minor professional or clerical and sales worker; educational level may range from less than seventh grade to graduate work.

A statistical comparison of the two groups was determined using the t-test for independent samples, since social class could be considered an interval scale as it was a composite of occupation and

[1]See appendix C, p. 91.

education which had been numerically developed and standardized.[1] The probability of the t-value of -.33 was not significant. Therefore, there was no significant difference between the two groups in social position. This is recorded in Table 12.

TABLE 12.--DIFFERENCE BETWEEN THE TWO GROUPS IN SOCIAL CLASS

Group	Mean	Standard Deviation	Standard Error	t	Degrees Freedom	Probability
1 2	3.1 [illegible]	0.761 0.989	0.155 0.202	-.33	46	0.745

Labor force status

Forty-two percent of the total sample was working. This was higher than the March, 1971 national average[2] which showed that 30 percent of wives with children under 6 years were working. For wives with children under three years of age, the national average was 27 percent compared with [illegible] percent of Group 1 mothers who were working. The national average for working wives with children between three and five years of age (none under three) was [illegible] percent compared with 46 percent of the Group 2 mothers who were working.

A statistical comparison of the two groups using the chi-square test for independent samples showed there was no significant difference between the two groups in the number of working mothers. This is recorded in Table 13.

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[1] [illegible] Procedures [illegible]

[2] [illegible] (April, 1971), [illegible]

TABLE 13.--LABOR FORCE STATUS

Status	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Working	20	42	9	38	11	46
Not Working	28	58	15	62	13	54
Total	48	100	24	100	24	100

X^2=0.08571 df=1 P=.7697

Of the 20 mothers who worked, approximately half worked part-time. The average number of hours worked per week was 30, although the range was from 9 to 59. Two mothers worked more than 40 hours per week; both worked for pay at home, one as a bookkeeper for her husband's business and the other did babysitting in her home. Data on number of hours worked are summarized in Table 14.

Since the number of working mothers was only 20, further statistical analyses used the Fisher exact test. There was no statistically significant difference between the groups on part-time or full-time work based on the Fisher exact probability value of 0.18492. A statistical comparison of work status of mothers by number of children did not show any significant difference between part-time and full-time work. The Fisher exact probability was 0.17492.

Occupations of employed mothers were categorized according to the Hollingshead scale. These data are summarized in Table 15. None was employed as a major professional; 30 percent were employed in the

lesser and minor professional categories--three teachers, a computer programmer, a real estate saleswoman, and a private secretary. Forty percent were employed as clerical and sales workers--sales clerks, bookkeepers, secretaries, and an airline reservation clerk. Thirty percent were in semiskilled or unskilled jobs--factory worker, domestic, waitress, deliverywoman, seamstress, and baby-sitter.

TABLE 14.--NUMBER OF HOURS EMPLOYED WOMEN WORKED PER WEEK

Categories	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Works full-time[a]	10	50	6	67	4	36
Works part-time	10	50	3	33	7	64
(20-34 hours)	(4)		(1)		(3)	
(less 20 hours)	(6)		(2)		(4)	
Total	20	100	9	100	11	100
Mean hours/week[b]	30		34		26	
Median	32		36		25	
Range	9-59		9-59		12-40	

[a]Full time defined as 35 hours or more per week.

[b]Measures of central tendency computed from raw data.

Family Income

Family income for 58 percent of the study sample was in the $10,000 to $15,000 level. The median income was $12,589. The data on family income are summarized in Table 16.

TABLE 15.--OCCUPATIONAL CLASSIFICATIONS OF EMPLOYED WOMEN

Classifications	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Major Prof.	.	..	.	..	.	..
Lesser Prof.	3	15	2	22	1	9
Minor Prof.	3	15	2	22	1	9
Clerical and Sales	8	40	3	33	5	45
Skilled Manual	.	..	.	..	.	..
Semiskilled	3	15	1	11	2	18
Unskilled	3	15	1	11	2	18
Total	20	100	9	99	11	99

TABLE 16.--FAMILY INCOME

Income Levels	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
$5,000-$9,999	10	21	5	21	5	21
$10,000-$14,999	26	58	13	54	15	62
$15,000-$19,999	6	13	3	12	3	12
$20,000-$24,999	4	8	3	12	1	4
Total	48	100	24	99	24	99
Median	$12,589		$12,884		$12,500	

X^2=0.5[illegible] df=2 P=.7623

The median income for Groups 1 and 2 was not much different from that of the entire study sample. In order to compute a statistical comparison of the two groups using the chi-square test, it was necessary to combine the two highest income levels into a "$15,000 and over" level.

There was no statistically significant difference between the groups on income, since the X^2 value of 0.54 was not significant.

The data on family income were also divided into categories of families in which the mother was in the paid labor force and those in which the mother was not in the paid labor force. This summary is presented in Table 17.

TABLE 17.--FAMILY INCOME BY LABOR FORCE STATUS OF WIFE

	Total Sample		Wife in Paid Labor Force		Wife Not in Paid Labor Force	
Income Levels	Number	Percent	Number	Percent	Number	Percent
$5,000-$9,999	10	21	5	25	5	18
$10,000-$14,999	28	58	10	50	18	64
$15,000-$19,999	6	13	1	5	5	18
$20,000-$24,999	4	8	4	20	..	..
Total	48	100	20	100	28	100
Median	$12,589		$12,749		$12,638	

One might expect the median family income to be higher for families where the mother worked. However, the median incomes were very similar.

In order to make a comparison of median income of the study sample with the 1971 median income from the U.S. Census, the most comparable subgroup available was that of white two-parent families with the male head aged 25-34. These data are summarized in Table 18.

The median income of the study sample was $12,589, nearly $1600 higher than the median income for U.S. white, two-parent families with

the husband aged 25 to 34. The median income for families with the wife in the paid labor force was $700 higher than similar U.S. families and where the wife did not work, it was $2300 higher.

TABLE 18.--COMPARISON OF MEDIAN INCOME OF STUDY SAMPLE WITH U.S. CENSUS FOR WHITE FAMILIES WITH THE MALE HEAD AGED 25-34

	Total Number	Wife in Paid Labor Force	Wife Not in Paid Labor Force
Coolican Study	$12,589	$12,749	$12,638
U.S. Census	$10,992	$12,051	$10,287

Source: U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 85, "Money Income in 1971 of Families and Persons in the United States" (Washington, D.C.: Government Printing Office, 1972), p. 46.

The median incomes were computed from grouped data in both cases. The U.S. Census data, however, used smaller group intervals which would result in a lower median income than if the median income were computed from the same intervals as used in the present study. Two factors that might account for a higher difference in median income than one might expect are: (1) family incomes in the Northeast are higher than for the United States as a whole[1]; and (2) 1972 family incomes for the sample were compared with 1971 Census family incomes.

[1]U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 85, "Money Income in 1971 of Families and Persons in the United States" (Washington, D.C.: Government Printing Office, 1972), p. 147.

Husband's attitude towards wife's learning

Interviewees were asked an open-ended question concerning the reaction of husbands to their spending time continuing their learning. Responses were classified in one of three categories--supportive approval, indifferent or neutral, or outright opposition. The interviewee then confirmed the classification of her response.

Over 80 percent of the interviewees reported the supportive approval of husbands in their learning efforts--this held true for Group 1 and Group 2 as well as for the total sample. The summary of attitudes is reported in Table 19.

TABLE 19.--HUSBAND'S ATTITUDE TOWARDS WIFE'S LEARNING

Categories	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
Supportive	40	83	20	83	20	83
Indifferent or Neutral	8	17	4	17	4	17
Opposition	..	..	..	..	..	..
Total	48	100	24	100	24	100

X^2=0.15000 df=1 P=0.6985

There was no statistically significant difference between the two groups on husband's attitude towards his wife's learning activities since the X^2 value of 0.15 was not significant. Only 17 percent

reported a husband's attitude of indifferent or neutral; none reported that her husband was in opposition to her learning efforts. It may be that women who refused to be interviewed had husbands who opposed their spending time in learning activities.

Summary

The two groups were compared for statistically significant differences for eight personal and socioeconomic characteristics. There were no statistical differences between the groups in the variables of family status, age, educational level, attitude towards school, social position, status in the work force, family income, or husband's attitude towards the wife's learning. Therefore, differences in the kind and extent of learning activities cannot be attributed to any of the eight variables tested.

A comparison of the study sample with U.S. Census data on educational level and family income showed the study sample had completed more education and had a median income approximately $1600 higher than the population in general.

In overview, then, the "typical" mother in the study sample might be described as follows: She was white, age 26, married and living with her husband in an urbanized area in the suburbs of a central city of 200,000 population. She complet 13 years of formal school and she had a positive attitude about school. She might or might not work for pay but if she did, she spent about 30 hours a week in the labor

force. She and her husband had an annual family income of almost $13,000 and she had the supportive approval of her husband towards her learning efforts.

Extent of Learning Activity Undertaken in Past Year

The amount of learning activity undertaken during the past year was determined by two measures--the number of learning projects conducted and the subject's estimate of the total time spent on these learning projects.

Number of learning projects

All learning projects which met the criteria of being a deliberate effort to gain knowledge and skill and retain it for at least two days were included in the study. Projects that were active, inactive, or dropped were included if they met the above criteria, as were completed projects and those still in progress.

All 48 interviewees had undertaken at least two learning projects in the past year, which was a participation rate of 100 percent. The number of learning projects ranged from two to twelve. The typical person conducted about six learning projects. More precisely, the sample mean was 5.9 and the median was 5.6. The detailed data are presented in Table 10.

TABLE 20.--NUMBER OF LEARNING PROJECTS CONDUCTED IN PAST YEAR

Number of Projects Conducted	Total Sample		Group 1		Group 2	
	Mothers	Projects	Mothers	Projects	Mothers	Projects
2	3	6	.	..	3	6
3	4	12	2	6	2	6
4	9	36	5	20	4	16
5	7	35	3	15	4	20
6	12	72	7	42	5	30
7	2	14	1	7	1	7
8	3	24	.	..	3	24
9	5	45	4	36	1	9
10	2	20	1	10	1	10
11	.	..	.	..	.	..
12	1	12	1	12	.	..
Total	48	276	24	148	24	128
Mean	5.8		6.1		5.3	
Median	5.6		5.8		5.2	
Mode	6		6		6	
Range	2-12		3-12		2-10	

The two groups were compared for differences in number of learning projects by the t-test for two independent samples. A comparison of the mean number of projects revealed no significant difference. This is recorded in Table 21.

TABLE 21.--DIFFERENCE BETWEEN THE TWO GROUPS IN NUMBER OF LEARNING PROJECTS

Group	Mean	Standard Deviation	Standard Error	t	Degrees Freedom	Probability
1	6.1	3.371	0.484	1.26	46	0.215
2	5.3	2.570	0.453			

Therefore, the stage of the family life cycle did not account for any significant variance in the number of learning projects conducted by mothers in the two groups.

Status of learning project at time of interview.--Interviewees were asked to describe the status of each learning project at the time of the interview: (1) completed; (2) active--continuing effort right now and spending about as much time as ever at it; (3) inactive--have set it aside for a while or spending much less time than before; and (4) dropped before completion and don't plan to continue. Their responses are summarized in Table 22.

TABLE 22.--STATUS OF LEARNING PROJECTS AT TIME OF INTERVIEW

Status	Learning Projects	
	Number	Percent
Completed	69	25
Active	186	67
Inactive	21	8
Dropped before completion	..	..
Total	276	100

About two thirds (n=186) of all learning projects were still active at the time of the interview; approximately 8 percent (n=21) were inactive. However, 9 of the 21 inactive projects involved subject matter of a seasonal nature such as gardening, camping, or canning, and interviewees remarked these would become active again.

None of the projects undertaken in the past year had been dropped. What does this mean? It could mean that interviewees did not remember learning projects that were dropped and therefore did not report them. It may mean they only undertook projects where both the need and accomplishment were clear and they discarded learning projects when the possibility of planning and doing them seemed improbable. It may also mean that since the subjects were not asked about learning needs, information pertaining to learning needs or goals which they would not undertake was not collected.

One fourth (n=69) of the learning projects reported had been completed during the year. Caution must be taken in drawing conclusions from this since data did not include hours spent on a learning project more than 12 months before the interview nor during the months after the interview. It does affirm, however, that learning projects are completed and new ones are started.

Estimated time spent at learning efforts

Another perspective of the extent of the learning effort is obtained by considering the estimated time invested. The estimated time spent on a learning project included time spent in (1) deciding and planning, (2) traveling and arranging, and (3) learning effort. Deciding and planning time included deciding what to learn, how to go about the learning, where to get help or advice, and evaluating progress; traveling and arranging time could include traveling to a meeting or library,

finding the right book or person, arranging appropriate conditions for learning, or skimming material in order to find relevant items for a learning episode. Time spent in learning included time spent reading, listening, observing, discussing, experimenting, or learning in some other way where the motivation to gain and retain certain knowledge and skill was stronger than all other motives put together.

Interviewees spent very little time in the deciding and planning phase; in 76 percent (n=212) of the learning projects they had not spent any time in deciding and planning. In response to further probing on this, a typical response was, "I thought about it real quick and then jumped right into the learning project." What does this mean? It could mean they had a clear, specific goal; it could also mean their learning projects lacked clear goals. It may also be related to their knowledge of sources of information, materials, and instruction. It may indicate a lack of planning skills.

During the twelve months prior to the interview, the forty-eight mothers devoted an estimated 12,002 hours to deliberate learning efforts. This is an average of 250 hours or 30 eight-hour days per year per person. The total hours devoted to learning projects by individuals are summarized in Table 23.

The fewest hours were invested by Mrs. M who had spent a total of 30 hours on two short learning projects--a ceramics class she had attended for two months and on-the-job training for her new job as a sales clerk in a discount store. Neither of these two learning projects

was self-planned nor was active at the time of the interview. Mrs. M was 23, completed the tenth grade in school and reported she "did not like school at all." She had two children aged five and two; she worked 14 hours a week. Her husband was a high school graduate and worked as a warehouse manager; their family income was in the $5,000 to $9,999 range. She never read a newspaper, read only one magazine regularly, and reported she loses interest easily if "things don't go right." The ceramics class she began only two months before was inactive at the time of the interview.

TABLE 23.--TOTAL ESTIMATED TIME SPENT AT LEARNING PROJECTS IN PAST YEAR

	Total Sample	Group 1	Group 2
Number hours	No. of people	No. of people	No. of people
0-99	15	6	9
100-199	13	8	5
200-299	7	4	3
300-399	3	.	3
400-499	3	1	2
500-599	2	1	1
600-699	3	2	1
700-799	..	.	.
800-899	1	1	.
900-999	..	.	.
1000-1099	1	1	.
Total	48	24	24
Mean (hours)	250	285	215
Median (hours)	167	181	146
Range (hours)	30-1016	42-1016	30-688

In contrast, Mrs. V spent an estimated 1016 hours in nine projects that were all self-planned. She was an independent person who "likes to figure things out for herself and won't ask others for help." Mrs. V was 24, had one child, was a college graduate, and worked 50 hours a week at home as bookkeeper for her husband's business. Their family income was in the $10,000 to $14,999 range. She reported only enjoying school "somewhat" but talked about returning to college in a few years. Mrs. V spent over 300 hours each in two of her nine learning projects--one related to her job and another on current events which she undertook because her husband was knowledgeable in current events and she felt she wanted to be well-versed also. Her other seven learning projects were all in the area of personal or family competence; they included sewing, gardening, money management, child care, cooking, learning to be more understanding, and learning about kidney disease. These seven projects were shorter in length, ranging from 4 to 78 hours. All nine projects were still active at the time of the interview.

The means of the estimated hours spent in learning were compared for a statistically significant difference between Groups 1 and 2. A t-test showed no significant difference as reported in Table 24. It was found that the stage of the family life cycle of young mothers was not associated with the estimated total time spent in learning projects; the t-value of 1.05 was not significant at the .05 level.

TABLE 24.--DIFFERENCE BETWEEN THE TWO GROUPS IN TOTAL ESTIMATED TIME SPENT IN LEARNING

Group	Mean	Standard Deviation	Standard Error	t	Degrees Freedom	Probability
1	284.7	267.670	54.638	1.05	46	0.301
2	215.3	184.278	37.616			

Mean length of learning projects

The mean length of time spent in learning projects was computed for each interviewee. The distribution of these 48 personal averages is shown in Table 25 for the total sample and in Table 26 by the two groups. The group mean for the study sample was 41 hours and the median 32 hours. The range was from 8 to 138 hours.

Three persons averaged over 100 hours per project. Each had a similar pattern--one or two major projects plus several shorter ones. All three had used adult education institutions as a resource.

Mrs. P spent 688 hours in 5 projects, an average of 138 hours. She graduated from high school but did not enjoy school very much. She was 26, had two children aged 9 months and 3 1/2 years, and did not work. Her husband had a new job as a territory manager and they would be moving to another state when he completed his training. Their income was in the $10,000 to $14,999 range. The husband's new job had a bearing on two of her learning projects. Her major project (408 hours) revolved around her feeling that she had been living in a small

TABLE 25.--RANGE IN TOTAL ESTIMATED HOURS SPENT IN LEARNING PROJECTS FOR TOTAL STUDY SAMPLE

Case Number	Total Hours	Number Learning Projects	Mean Hours/ Project	Group Number
1	1016	9	113	1
2	884	10	88	1
3	688	5	138	2
4	640	9	71	1
5	603	9	67	1
6	564	5	113	2
7	532	6	89	1
8	484	10	48	2
9	466	7	67	1
10	423	9	47	2
11	374	6	62	2
12	352	8	44	2
13	339	6	56	2
14	298	4	74	1
15	268	8	33	2
16	268	6	45	1
17	262	6	44	1
18	257	5	51	2
19	249	12	21	1
20	200	4	50	2
21	191	6	32	1
22	186	6	31	2
23	185	5	37	1
24	177	5	35	1
25	158	9	18	1
26	148	6	25	2
27	144	2	72	2
28	128	4	32	1

TABLE 25.--Continued

Case Number	Total Hours	Number Learning Projects	Mean Hours/ Project	Group Number
29	123	6	20	1
30	113	6	19	1
31	108	4	27	1
32	105	6	17	2
33	100	4	25	2
34	99	8	12	2
35	98	4	24	1
36	98	6	16	1
37	71	3	24	1
38	67	3	22	1
39	67	3	22	2
40	64	4	16	2
41	64	3	21	2
42	59	2	29	2
43	58	7	8	2
44	57	4	14	1
45	51	4	13	2
46	45	5	9	2
47	42	5	8	1
48	30	2	15	2
Total	12002	276	...	
Mean	250	5.8	41	
Median	167	5.6	32	
Mode	...	6	..	
Range	30-1016	2-12	8-138	

TABLE 26.--RANGE IN TOTAL ESTIMATED HOURS SPENT IN LEARNING PROJECTS DURING PAST YEAR BY GROUPS

Group 1				Group 2			
Case Number	Total Hours	Number Learning Projects	Mean Hours/ Project[a]	Case Number	Total Hours	Number Learning Projects	Mean Hours/ Project[a]
1	1016	9	113	1	688	5	138
2	883	10	88	2	564	5	113
3	640	9	71	3	484	10	48
4	603	9	67	4	423	9	47
5	532	6	89	5	374	6	62
6	466	7	67	6	352	8	44
7	298	4	74	7	339	6	56
8	268	6	45	8	268	8	33
9	262	6	44	9	257	5	51
10	249	12	21	10	200	4	50
11	191	6	32	11	186	6	31
12	185	5	37	12	148	6	25
13	177	5	35	13	144	2	72
14	158	9	18	14	105	6	17
15	128	4	32	15	100	4	25
16	123	6	20	16	99	8	12
17	113	6	19	17	67	3	22
18	108	4	27	18	64	4	16
19	98	4	24	19	64	3	21
20	98	6	16	20	59	2	29
21	71	3	24	21	58	7	8
22	67	3	22	22	51	4	13
23	57	4	14	23	45	5	9
24	42	5	8	24	30	2	15
Total	6833	148	..	Total	5169	128	..
Mean	285	6.1	42		215	5.3	40
Median	181	5.8	32		146	5.2	30
Mode	...	6	..		...	6	..
Range	42-1016	3-12	8-113		30-688	2-10	8-138

[a]The mean length of each interviewee's projects was obtained by dividing the total hours of participation by the number of learning projects undertaken. The group mean project length was obtained by adding the individual averages and dividing this sum by the number of participants.

world, couldn't talk intelligently in a group, and therefore needed to take more interest in the world around her. The second project, somewhat shorter in length (66 hours), was an effort to learn about her husband's new job. The three other projects included a ceramics class (168 hours), a religious-oriented project (44 hours) undertaken in the last four months, and a very new project on learning to sew (2 hours). All projects were active except for the ceramics class which was completed. Three projects were self-planned; one group-planned; and the other planned by an individual in a one-to-one situation.

Mrs. S graduated from a two-year college and enjoyed school a great deal. She was 25, had two children aged 7 months and 3 1/2, and did not work. Her husband was an attorney and their family income was in the $10,000 to $14,999 range. She indicated an obstacle to her learning was that she was lazy, yet she undertook 5 projects totaling 564 hours, an average of 113 hours per project. The S family purchased a new home this past year which accounted for her major project on interior decorating (492 hours). Her other four projects, quite short in duration, included learning to entertain her husband's clients (36 hours), golf (19 hours), tennis (9 hours), and child care (8 hours). All projects were active except for golf which was inactive at the time of the interview.

The third person who averaged over 100 hours per project was Mrs. V who was described earlier in this chapter. She spent 1016 hours in 9 projects, an average of 113 hours per project.

Three persons averaged less than 10 hours per project. Here two general patterns emerged--a major short project and several very short projects or all projects very short in total time. Mrs. B undertook 5 learning projects in the past year totaling 45 hours, an average of 9 hours per project. She was 25, had two children aged 11 months and 3 years, and did not work. She graduated from high school which she enjoyed "somewhat." Her husband was an accountant and their family income was in the $10,000 to $14,999 range. Her major learning project was to take part in classes in natural childbirth (27 hours); her other 4 learning projects were each less than 8 hours and included money management, arts and crafts, child care, and buying a house. The natural childbirth and money management projects were completed; the other three were still active at the time of the interview.

Mrs. W had three children, aged 5, 1 1/2, and 5 months. She was 23, graduated from high school which she enjoyed "quite a bit" and did not work. Her husband was a skilled manual employee; their family income was in the range of $10,000 to $14,999. Mrs. W undertook 7 learning projects in the past year totaling 58 hours, an average of 8 hours per project. Her major project (23 hours) was learning about the Pennsylvania Dutch country. The other six projects, less than 9 hours each, included three completed projects (buying a rug, buying a motorcycle, and [illegible] on a nursery school) and three active projects (learning to ride a motorcycle, remodeling a bathroom, and sibling rivalry). The only institutional resource Mrs. W used was a store clerk.

Mrs. C was 23 and graduated from a two-year community college which she enjoyed "quite a bit." She had a two-year-old child and did not work. Her husband was a budget analyst and their income was in the $10,000 to $14,999 range. Mrs. C undertook 5 very short learning projects of less than 13 hours each, totaling 42 hours. She completed three projects on quilting, remodeling, and mutual fund investments; learning projects on ceramics and child care were still active. Mrs. C did not use any adult education institution as a resource but she did consult a neighbor who was a lawyer about the mutual funds.

While other researchers set a minimum time criterion of seven hours for a learning project, a decision was made to also include learning projects which were less than seven hours in this study. For this reason, time estimates were also summarized from the perspective of the learning projects rather than from the individual respondents. The summary presented in Table 27 shows the mean length of time per project was 43 hours, not considerably different from the mean of 41 hours when the average project length was calculated from the individual interviewee's perspective. The median, however, drops from 32 to 21 hours. This is caused by the large number of projects of short duration which results in a distribution with a strong positive skew.

Learning projects less than seven hours.--Twenty-seven percent (n=74) of the total number of learning projects reported were less than seven hours. Ninety-one percent (n=99) of the study sample reported at least one project of this duration or less than seven hours. Since no previous study included

projects of less than seven hours, a further analysis was made of these 74 projects. They were of two types: (1) completed projects on subjects which could be learned in less than seven hours (preparation of an income tax return for the first time, driving a snowmobile, bread-making, learning about fire insurance or family planning); and (2) projects undertaken in the last seven months which were active and would undoubtedly develop into longer projects (first aid course, gardening, sewing, marriage discussion group, golf, or learning about crib death).

TABLE 27.--NUMBER OF LEARNING PROJECTS BY LENGTH OF EACH PROJECT

Length of Project in Hours	Learning Projects	
	Number	Percent
Less than 7[a]	74	27
7-25[b]	78	28
26-50[b]	55	20
51-75	31	11
76-100	13	5
101-200[b]	15	5
201-300	4	1
301-400	3	1
401-500	3	1
Total	276	99
Mean[c]	43	
Median	21	
Range	1-492	

[a]The seven hour interval was used to determine the number of projects which were less than seven hours.

[b]Note change in size from previous class interval.

[c]Measures of central tendency computed from raw data.

While the minimum number of hours used to define a learning project is an arbitrary thing, it may be there is a phenomenon here of "quick learning"--one to six hour projects. There may be a large number of them during a twelve month period. It may be that because of their short duration, fewer will be remembered further back in a person's memory. If the hypothesis that the longer the time since a short project was undertaken, the more likely it is that a person will forget it is true, it would be impossible to enumerate all of these short projects except in a longitudinal study.

Learning projects of less than seven hours were compared with both those longer than seven hours and all projects to determine if any different patterns emerged. These are summarized in Table 28.

A higher percentage of the shorter projects had been completed. The inactive projects were of the same frequency as longer projects; the majority of the inactive short projects were of a seasonal nature which was also true of all inactive projects.

A slightly higher proportion of short projects was in the area of personal or family competence. The pattern for major planner was similar for all projects regardless of length.

Learning projects longer than 200 hours.--Only 3 percent (n=10) of the total number of learning projects reported were longer than 200 hours each. An estimated 3,370 hours was spent on these 10 projects--approximately 20 percent of the total 17,00? hours spent in all 276

TABLE 28.--COMPARISON OF LEARNING PROJECTS OF LESS THAN SEVEN HOURS WITH LEARNING PROJECTS OF MORE THAN SEVEN HOURS

a. Status of Projects At Time of Interview	Percent of Learning Projects		
	All (N=276)	Less 7 hours (N=74)	7 hours and above (N=202)
Completed	25	38	20
Active	67	53	73
Inactive	8	9	7
Dropped	..	..	..
Total	100	100	100
b. Subject Matter Types			
Vocational	6	4	7
Personal or Family	59	65	57
Social and Civic	7	3	8
Self-fulfillment	27	28	27
Total	99	100	99
c. Major Planner			
Self-planned	66	64	67
Group	16	16	16
Individual	13	18	11
Material Resource	5	3	5
Total	100	101	99

projects undertaken by the total sample. Five projects were vocational in nature--two graduate courses in Sociology and English Literature; three self-planned job training projects on selling real estate, running a husband's business, and learning more about general scientific knowledge.

Two projects were in the area of civic competence. One woman had undertaken a learning project in current events because she felt she had been living in a little world and couldn't converse intelligently in a group situation; a second woman undertook a similar project because of her husband's interest and knowledge in current events. The three remaining projects were in the area of personal and family competence. One was a major project in interior decorating. The serious illness of a father prompted another woman to spend 338 hours learning about his illness; the mother of a retarded child spent 486 hours learning about mental retardation, adjustment to having a retarded child, and after the child was institutionalized, learning to accept other children. Except for the two graduate courses, the other eight projects longer than 200 hours were self-planned.

Measure of association between personal and socioeconomic characteristics and extent of learning participation

To determine the extent of association between personal and socioeconomic characteristics and the measures of learning participation--number of learning projects and total estimated time spent--Cramer's V statistics were calculated. This test was used because it permitted use of nominal data, did not require rank order, could be used with [illegible], and was also available in the SPSS computer program. The number of learning projects and time spent were divided into two

categories--those above the mean, and those below the mean. The intervals for personal and socioeconomic characteristics ranged from two to four. The data are summarized in Table 29.

TABLE 29.--RESULTS OF CRAMER'S V CALCULATED TO MEASURE ASSOCIATION BETWEEN DEMOGRAPHIC CHARACTERISTICS AND NUMBER OF LEARNING PROJECTS AND TOTAL ESTIMATED TIME SPENT ON LEARNING PROJECTS

Number Learning Projects			Total Time Spent	
Group 1	Group 2	Characteristic	Group 1	Group 2
.03525	.01744	Family Status	.05384	.05384
.04364	.07692	Labor Force Status	.20000	.06477
.03780	.14959	Husband's Attitude	.00000	.00000
.18898	.28414	Age	.36515	.62406
.48093	.45365	Education	.07968	.39841
.17995	.46692	Attitude Towards School	.31190	.12205
.68741	.16301	Family Income	.35838	.24646
.57703	.40682	Social Position	.37968	.56218

Cramer's V is a measure of extent of association. Its values range from 0, when there is no relationship between the two variables, to 1, when the relationship between the two variables is perfect. This range from 0 to 1 holds regardless of the size of the table being tested.

For three characteristics--family status, labor force status, and husband's attitude--there was little if any association in either group with the number of learning projects or total time spent. For age, there was a different pattern of association--age was not associated with number of learning projects but in time spent, age was moderately associated for Group 1 and highly associated for Group 2.

On education, there was a moderate to high association in both groups with number of learning projects; this held for total time spent in Group 2 but there was a low association between education and time spent for Group 1.

There were some interesting differences between the groups on attitude towards school and family income. There was a moderate association between attitude towards school and number of learning projects for Group 2, but a low association for Group 1; the association between attitude and time spent was just the opposite. There was a high association between family income and learning projects for Group 1 but the association was low for Group 2; the family income association with total time spent was low for Group 1, and even lower for Group 2.

For social class, the association was consistently high for both learning projects and time spent in both groups. The data suggest that differences in age, educational level, attitude towards school, family income, and social position, may have an effect on the extent of learning efforts for this group of adults. Further exploration is needed to test the validity of the following conclusions:

1. Age was directly associated with the amount of time spent in learning projects; age appeared to have little or no relationship to the number of projects undertaken.

2. Educational level was directly associated with the number of projects and hours by mothers with young children.

3. Social position was directly associated with number of projects and amount of time spent in learning activities.

4. The higher the family income level, the greater were the number of learning projects undertaken and amount of time spent in learning efforts by mothers in family life cycle stage where the oldest child was under thirty months. This relationship disappeared as mothers entered family life cycle stage where the oldest child was between thirty and sixty-four months.

Summary

All 48 interviewees had undertaken at least two learning projects in the past year, which was a participation rate of 100 percent. The typical mother conducted about six learning projects. Respondents reported that they spent a total of 12,002 hours in learning projects during the twelve months immediately prior to the interview. The available evidence did not suggest that many of the projects had a lifespan of more than one year. Almost two-thirds (n=186) of the 276 projects reported were active at the time of the interview. This finding suggests that the average length of 41 hours per project did not represent the total life span of the learning projects. The average of 250 hours/year per person (i.e., 30 days) is probably a more significant statistic.

The family life cycle stage did not account for any significant variation in learning among young mothers. The subjects, however, did vary in the total number of hours (i.e., range 30 to 1016 hours) and in the mean length of a learning project (i.e., 8 to 158 hours). Twenty-seven percent (n=74) of the total number of learning projects reported were less than seven hours, while only 3 percent (n=10) were longer than 100 hours each.

and planning phase of their learning projects; they did not spend any time in deciding and planning in 76 percent (n=212) of the learning projects.

It appears the major question is no longer participation vs. non-participation. All undertook learning projects to some degree. The major focus now should be on questions related to differences in degree of participation.

Learning for Credit

Credit was defined to include both academic credit and certification. Academic credit included those learning efforts receiving credit towards a high school diploma, a certificate from a business school, or a college degree. Certification included learning projects undertaken to pass a test or examination, toward some license or driving test, or toward some requirement or examination related to a job.

Approximately 1 percent (n=4) of the 276 learning projects reported in the interviews was undertaken for credit as defined above; of these four projects, two were driving lessons and the other two were graduate courses.

These data are consistent with other evidence that learning for academic credit and certification forms only a small portion of all adult learning. Tough's study[1] found that only 0.7 percent of all the learning projects were undertaken for credit. Johnstone and Rivera

[1] Tough, Learning Projects, p. 18.

concluded that "in the main, the earning of formal credit is not an important motive in the educational behavior of American adults."[1]

Types of Subject Matter Studied

Each learning project reported was categorized into one of four areas of learning set forth by Liveright[2]: (1) occupational, vocational and professional competence; (2) personal or family competence; (3) social and civic competence; and (4) self-fulfillment. The classification scheme used to further divide subjects within each of these four categories was the same classification scheme used in the Johnstone and Rivera study.[3] Table 30 summarizes the number of learning projects and percent by each category.

TABLE 30.--TYPES OF SUBJECT MATTER STUDIED BY TOTAL SAMPLE

Category	Learning Projects	
	Number	Percent
Occupational, Vocational	18	6
Personal or Family	163	59
Social and Civic	19	7
Self-fulfillment	76	28
Total	276	100

[1]Johnstone and Rivera, Volunteers for Learning, p. 68.

[2]A. A. Liveright, A Study of Adult Education in the United States (Brookline, Mass.: Center for the Study of Liberal Education for Adults, 1968), p. 5.

[3]Johnstone and Rivera, Volunteers for Learning, pp. 48-50.

Occupational, vocational, and professional competence.--This includes learning related to preparing to enter the labor market, on-the-job training, retraining for a shift in occupation, and also basic and literacy education. A relatively small number of learning projects, only 18 or 6 percent of the total, fell into this category. This could be expected, since work was not considered a primary role of mothers of young children. While 42 percent (n=20) of the mothers worked, only 10 were employed full time. Examples of the 18 learning projects in this area included learning about wines undertaken by a woman who recently started work in a liquor store, learning business procedures in order to take over the bookkeeping of a new family business, on-the-job training for a computer programmer, and two graduate courses undertaken by a teacher.

Personal or family competence.--This includes learning for the individual's role as parent, spouse, and homemaker, and also learning related to mental and physical health. The majority of learning projects, 163 representing 59 percent of the total, was in this category. Table 31 shows a breakdown of this area by subjects.

Twenty-six learning projects in the area of physical health centered around problems of family health: crib death, club feet, a deaf child, heart trouble, drugs, kidney disease, physical fitness, pregnancy and natural childbirth. There were only five learning projects related to mental health but two were extensive projects involving over 300 hours

each. One was adjusting to having a retarded child; the second adjusting to a father's serious illness.

TABLE 31.--NUMBER AND PERCENTAGE OF TOTAL SAMPLE WHO STUDIED SUBJECTS IN AREA OF PERSONAL AND FAMILY COMPETENCE

Subjects	Number	Percent
Personal Development	33	20
Mental and physical health	(31)	(19)
Driving	(2)	(1)
Family Competence	130	80
Child development	(34)	(20)
Family relations and family planning	(9)	(6)
Gardening	(14)	(9)
Building or remodeling house	(11)	(7)
Interior decorating	(9)	(6)
Consumer education	(20)	(12)
Nutrition and food preparation	(14)	(9)
Sewing	(12)	(7)
Family finance	(7)	(4)
Total	163	100

Under home and family competence, learning projects related to child development were the most frequent. Seventy percent of the mothers had conducted a learning project around some phase of child care or child development. For new mothers the learning project usually centered around care of a new baby; mothers with older children were more concerned about toilet training, discipline, eating habits, temper tantrums, or sibling rivalry. Most learning projects were undertaken as a result of a specific problem developing in one of these areas;

only two mothers included any episode in the learning project which might be classified as learning about developmental stages. With one exception, these learning projects were all self-planned and ranged in total estimated time from 3 to 188 hours. The mean number of hours was 37, the median 24.

There were only nine projects reported in the area of family relationships. Three were on family planning; the remaining six dealt with husband-wife relationships and incorporated group activities such as a retreat, an encounter group, and a self-formed discussion group that used tapes as a basis for discussions.

For many young couples, buying or remodeling a house involves major decisions. There were 34 projects regarding this and the related subjects of interior decorating and gardening.

The remaining 53 learning projects (31 percent) dealt with consumer education, nutrition and food preparation, sewing and family finance. One learning project on family finance involved counseling from a recently organized community family-debt counseling agency.

Social and civic competence.--This area covers the individual's role as a responsible citizen including voting and politics, current events, community government and development, pollution, and ecology. Learning in this area played a minor role in relation to the total learning of young mothers, with only 19 learning projects (7 percent) reported. Four women coordinated learning projects concerned with the national

elections of 1972, the first time they had voted. Seven women centered learning projects around current events and another four around ecology and pollution. The remaining four projects were concerned with local politics and planning.

Learning for self-fulfillment.--This includes learning for leisure, i.e., arts and crafts, hobbies, and recreation; liberal education--music, art, dance, theater; and religion, ethics, or moral behavior. This area represented the second highest number of learning projects undertaken by young mothers, 76 projects or 28 percent. Table 32 shows a breakdown of the area by subject categories.

TABLE 32.--NUMBER AND PERCENTAGE OF TOTAL SAMPLE WHO STUDIED SUBJECTS IN AREA OF SELF-FULFILLMENT

Subjects	Self-fulfillment Learning Projects	
	Number	Percent
Arts and Crafts	34	45
Recreation	20	26
Liberal Education	13	17
Religion	9	12
Total	76	100

Arts and crafts and recreation learning projects were clearly the most prevalent. The arts and crafts projects included 11 in ceramics which were undertaken in a group with a paid instructor; 7 projects were undertaken in a self-formed neighborhood group, and the remaining 16 handicrafts were learned from either an individual or a kit. A

review of the recreation learning projects revealed most centered around tennis, golf, and bowling but there were learning projects on camping, training dogs, learning to ride a motorcycle, and drag racing.

Projects classified under liberal education covered a wide range of topics: music, art, drama, great books, American history, and learning about life through reading poetry.

Learning projects of a religious nature were few in number. However, 6 of the 9 projects were undertaken by mothers who had become disassociated with a church and were now evaluating their situation.

Summary.--Learning related to personal or family competence was by far the most important area for 59 percent of all learning projects undertaken by young mothers were in this category; the next largest percentage, 28 percent, of the learning was related to self-fulfillment. Together, these two categories accounted for 87 percent of all the reported learning projects. Learning projects related to vocational and to social and civic competence had a relatively minor position in the overall pattern. Based on the recorded responses, it was concluded that the learning activities of young mothers were initiated primarily for practical reasons. The major emphasis was on the practical rather than the academic, on the applied rather than the theoretical, and on skills rather than knowledge. They were interested in applying what they learned to problems related to their job, home, hobbies, and other areas of deep personal interest. These findings were consistent with other surveys which revealed that

most adults learn for highly pragmatic reasons[1] and that "most learning projects were initiated for practical reasons--to carry out some task related to one's job, home, family, sport, or hobby."[2]

Learning projects to be undertaken in next twelve months

Interviewees were asked to identify specific learning projects they would like to undertake in the next twelve months--projects related to their current learning, and also new projects. The summary presented in Table 33 shows their projected learning activity was very similar to the pattern carried on during the past year.

TABLE 33.--LEARNING PROJECTS TO BE UNDERTAKEN IN NEXT TWELVE MONTHS

	Learning Projects			
	Total Undertaken During Past Year		To Be Undertaken During Next Twelve Months	
Subject Matter Category	Number	Percent	Number	Percent
Occupational, Vocational	18	6	14	7
Personal or Family	163	59	114	57
Social and Civic	19	7	3	2
Self-Fulfillment	76	27	69	34
Total	276	99	200	100

[1] Ibid., p. 7.

[2] Tough, Learning Projects, p. 1.

Interviewee comments indicated that they viewed their immediate future as not apt to vary greatly from the present with statements such as "I'd like to go back to college but not until my children are in school," "You should ask what learning projects I'd like to undertake five years from now," or "Next year I'll still be tied down with children."

Major Planners for Learning Projects

A planner was defined as the person or thing that was primarily responsible for the detailed planning decisions for the majority of the learning episodes. Learning projects were classified according to Tough's scheme of four types of planners.[1] These four types were: (1) self-planned--the learner himself assumes primary responsibility for planning not only the why, but also the what and how to learn, when to learn, and where to learn; (2) group--the group, or its leader or instructor, decides what and how to learn. Two categories of groups were devised--those sponsored by an educational institution with an instructor, leader or speaker assigned to that group, or a self-formed group of equals meeting outside any organized or institutional framework, and making the decisions about their own learning activities; (3) individual--the planning and deciding of what to learn and in what order is handled by some one person who helps the learners in a one-to-one situation. This individual may be an intimate (relative or friend),

[1] Ibid., pp. 7-8.

an intimate who is also an expert, or a paid expert who might be either a paid instructor or a person doing this as part of his job; (4) resource-planned--the major part of the detailed direction on what to learn and what to do has been predetermined and is prescribed in some material resource such as a programmed instruction book, set of tape recordings, or a television series.

The type of planner used by respondents in this study was determined by responses to the question, "What person(s) or object made the majority of the decisions about what to learn and/or how to learn"? Table 34 presents the percentages of learning projects that fell into the four different categories.

TABLE 34.--MAJOR PLANNER FOR LEARNING PROJECTS

Types of Planners	Learning Projects	
	Number	Percent
Self-planned	183	66
Group	44	16
Group with instructor	(33)	(12)
Self-formed group	(11)	(4)
Individual in a one-to-one situation	36	13
Intimate, nonexpert	(19)	(7)
Intimate, also expert	(2)	(1)
Paid expert	(15)	(5)
Material resource	13	5
Total	276	100

Two-thirds of all the projects were self-planned. This was similar to Tough's finding that 68 percent of all the learning projects in his 1970 study were self-planned.[1] Only one-third of the learning projects were planned by someone other than the learner, that is, by one of three types of "outside" planners.

Group-planned learning projects comprised 16 percent of all projects. Of this 16 percent, 75 percent (n=33) of the group-planned learning projects involved an instructor and 25 percent (n=11) involved self-formed groups without an instructor, meeting outside any institutional framework.

Projects planned by another person in a one-to-one situation accounted for 13 percent of all projects and were divided into three classifications. In 52 percent (n=19) of these projects, the planner was helping primarily because he was an intimate (relative or friend). In two projects, the intimate happened to be an expert in the subject matter but was chosen primarily because of the personal relationship. In forty percent (n=15), the individual who served as planner was paid by the learner or by someone else, or was doing so because this was a definite responsibility for him, or part of his job.

Resource planners such as programmed learning, television series, or printed instruction sheets were involved in only 5 percent of all learning projects. The paucity of resource-planned subjects to choose from may account for the minor role this planner category played in the overall [illegible].

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[1] [illegible], p. [illegible].

Interviewees were able to identify a single major planner for each learning project. Therefore, no projects were classified in the residual category of mixed planning.

Frequency of four types of planners

Data pertaining to the use of the various types of planners are summarized in Table 35.

TABLE 35.--FREQUENCY OF VARIOUS TYPES OF PLANNERS

Planner Category	Number Projects (N=276)	Subjects Using Type of Planner		Mean Number Projects Per Subject
		Number	Percent	
Self-planned	183	46	96	4.0
Group	44	29	60	1.5
Individual	36	26	54	1.4
Material Resource	13	10	21	1.3

All but two of the interviewees had conducted at least two self-planned projects; six interviewees had self-planned all their projects. The mean number of self-planned projects per person was 4. Sixty percent of the interviewees were involved in at least one project that was planned by a group or its leader; 54 percent conducted at least one project which was planned by an individual other than themselves. However, in terms of the total number of learning projects conducted, these two types of planners (group and individual) together were only respon-

sible for 29 percent (n=80) of all learning projects. Only 21 percent of the interviewees had at least one project where the planner was a material resource. The mean number of projects using each given type of planner was considerably higher for self-planned projects than for the other three categories--a mean of 4 compared with means of slightly more than 1 for the others. Possible explanations of why interviewees undertook a higher average number of self-planned learning projects might be due to the immediacy of the need, the uniqueness of the problem, limited time factor, or lack of knowledge about other types of planners to use for that particular learning project.

Comparison of learning projects professionally planned with those planned by learner or an amateur

Another analysis determined how many learning projects were planned by a paid person (or a person who was doing this as part of his job or responsibility as a volunteer in some agency), or sponsored by an institution. Only 23 percent of the 276 projects fell into this category. The other 77 percent were planned by the learner herself, by a friend or relative, or by a group of peers. A summary is presented in Table 36.

These findings are very similar to those found in the Tough study; [illegible] percent of learning projects were amateur planned compared with 19 percent professionally planned.[1]

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[1] [illegible], p. [illegible].

TABLE 36.--NUMBER OF LEARNING PROJECTS PLANNED BY THE LEARNER OR AN AMATEUR COMPARED TO PROFESSIONALLY PLANNED PROJECTS

Projects planned by		Number (N=276)	Percent
Learner or an amateur	Self-planned	183	66
	Individual who is a friend or relative (and not a trained instructor)	19	7
	Groups that were equals, outside of any institutional framework	11	4
	Total	213	77
Paid or professional person or sponsored by an institution	Person who is paid instructor, or helping as part of his job	15	5
	Individual who is a friend or relative, but also happens to be a trained instructor	2	1
	A group sponsored by an institution and/or using an instructor or leader paid for this task	33	12
	A material resource	13	5
	Total	63	23

The choice of an amateur rather than a professional planner may be due to factors such as easier access to amateur planners, less cost, lack of knowledge of professional planners, or flexibility of time involved. It may also be that professionals and institutions are not

perceived as "friends." Macdonald[1] found that the least important reasons for choosing a particular helper were his expertise, his education, his relevant experience, and the recommendations of others. Instead, the helper was chosen because the learner expected to feel comfortable and relaxed with him. The learner predicted he would be able to talk freely and easily with this helper, would not feel awkward or embarrassed, and would not feel he was imposing on the helper or irritating him.

It is interesting to note that a very high proportion of the learning projects were marked by individualized planning. If all the projects planned for a group (33) or by a material resource (13) are eliminated, the remaining 230 or 83 percent were designed with a particular individual in mind. In the Tough study, 84 percent of the learning projects were marked by individualized planning.[2]

Comparison of estimated time spent in learning projects by type of planner

A summary of the estimates of time spent in learning projects by type of planner is presented in Table 37.

The average length of time spent in a group-planned project was 53 hours--the highest average of all four planner categories. The average time (33 hours) spent in an individual-planned project was less than one-half the time spent in an average group-planned project. The

[1] Naiel Macdonald, "Informal Helping Relationships Among Adults" (unpublished Ph.D. dissertation, University of Toronto, 1968).

[2] Tough, Learning Projects, p. 98.

average number of hours spent in self-planned (45 hours) and resource-planned (46 hours) projects was similar to the overall 43 hour average. The median dropped to less than half the average for both self-planned and resource-planned projects; the difference between the average and the median for group-planned projects was less striking; the mean and median were the same for individual-planned projects.

TABLE 37.--COMPARISON OF LENGTH OF LEARNING PROJECTS BY TYPE OF PLANNER

Planner Type	Projects		Time Spent		Learning Projects Length in Hours		
	No.	Percent	Hours	Percent	Mean	Median	Range
Self-planned	183	66	8156	68	45	19	1-492
Group	44	16	2338	19	53	33	2-275
Individual	36	13	910	8	25	25	1-128
Material Resource	13	5	598	5	46	18	4-191
Total	276	100	12002	100	43	21	1-492

Data from the Tough study showed that self-planned learning projects were typically of much longer duration than the other three planner types. In his study, the mean length of self-planned projects was 119 hours as compared with 104 hours for the mean of all projects. The average time spent in projects planned by an individual other than the learner was next highest--63 hours. Group-planned projects ranked

third with a mean of 47 hours; learning projects that were resource-planned averaged 33 hours.[1]

The rank order of planner by average length of learning projects in this present study differed from the order found by Tough. His study contained seven populations; corresponding data were not available for the young mother population only. One explanation for the difference may be the possible correlation between subject matter studied by different populations and the average time spent in each planner category. Certain subjects may lend themselves to shorter learning projects; others, such as those related to vocational competence, may involve more hours.

Planner for different types subject matter

When the data for the four types of planners are tabulated by the areas of subject matter studied, some interesting percentages emerge as Table 38 shows. Self-planned learning almost dominates in two areas--personal and family, and social and civic competence--accounting for 80 percent of the total projects in each area. Self-planned projects occurred less frequently in the areas of occupational and self-fulfillment learning. In the area of occupational and vocational learning, interviewees relied on outside expert/professional planners almost twice as much as they planned themselves. Learning projects in the self-fulfillment

[1] Ibid., p. 70.

category were planned 33 percent of the time by a group, 39 percent by the learner, and 19 percent by one person who usually was a friend or relative.

TABLE 38.--MAJOR PLANNER FOR DIFFERENT TYPES SUBJECT MATTER

Primary Planner	Percentage for each Type Subject Matter			
	Occupational	Personal or Family	Social and Civic	Self-fulfillment
Self-planned	33	80	84	39
Group	28	8	5	33
Group, instructor	(22)	(6)	...	(25)
Group, self-formed	(6)	(2)	(5)	(8)
Individual, in a one-to-one situation	34	9	..	19
Intimate, nonexpert	....	(4)	...	(16)
Intimate, also expert	(6)	(0)[a]	...	....
Paid expert	(28)	(5)	...	(3)
Material resource	6	2	10	9
Total	101	99	99	100
Number of learning projects on which percentages were based	18	163	19	76

[a]Less than 1 percent.

For learning projects in occupational and vocational competence, subjects relied on traditional sources or a paid expert. This might be expected as the learner undoubtedly might feel less competent in planning

his learning related to this area; there is a wide variety of courses offered by adult education institutions; inservice and on-the-job training is usually provided by the employer. The dominance of self-planned learning in personal and family competence learning projects might be accounted for by several reasons: the learner felt competent to plan these projects, she may have had access to resources, or she may have preferred to use a variety of resources. It could also mean she was reluctant to seek outside help or admit her lack of knowledge in this area. The limited use of a resource planner in learning projects related to personal and family competence may be partially explained by the lack of television series or programmed instruction in this subject area.

There was an absence of institution-planned and individual-planned projects in the social and civic competence category. Why was this true for this particular subject area? It may mean that learners did not know an individual to use as a planner; it could also mean they did not regard an individual as a suitable planner to use. Since there are very few, if any, courses available in this subject, no judgment can be made as to whether learners would avail themselves of such courses if they were offered.

Subjects used all four types of planners for self-fulfillment learning projects. The variety of topics included in this category may account for the variety of planners used. Craft, hobby, and recreation learning projects were often learned in either a group or from another

individual; some crafts were learned from a material resource-planner. Religious learning projects were planned by either a group or a paid expert.

Self-planned learning

The phenomenon of self-planned learning was a major focus of the study. As reported earlier in this chapter, 66 percent of all learning projects were self-planned. Ninety-six percent of the subjects had conducted at least two self-planned projects; the mean number of self-planned projects was 4. Self-planned learning accounted for 80 percent of the total learning projects in two areas--personal and family, and social and civic competence.

Two additional questions were asked about self-planned projects--whether additional help was needed and why the learner decided to plan the project herself rather than using an "outside" planner. Interviewees indicated a need for additional help in 36 percent (n=65) of the 183 self-planned projects. The question asked in relation to additional help was open-ended; responses were later categorized into six predetermined categories. They are reported in Table 39.

In 62 of the 65 self-planned projects where a need for additional help was indicated, interviewees specified help was needed in the area of obtaining resources or assistance. This finding may well be related to the interviewees' limited knowledge of learning resources currently available from adult education institutions.

TABLE 39.--ADDITIONAL HELP NEEDED FOR SELF-PLANNED PROJECTS

Categories	Number of Projects (N=65)
Obtaining resources or assistance	62
Setting goal	2
Deciding on activities	1
Deciding when to learn or for how long	..
Evaluating progress	1
Total	66[a]

[a]In one project, the interviewee listed two areas where additional help was needed.

Setting a goal, deciding on activities, deciding when to learn or for how long, and evaluating progress are all related to the area of deciding and planning. The fact that, when queried on the amount of time spent on this phase of learning, interviewees reported no time spent in 7½ percent of the learning projects undoubtedly has a relationship to the number of times these tasks were mentioned. These findings suggest that the deciding and planning phase was a very quick process; interviewees had a felt need--they responded to it. The interview data do not support the idea that subjects were aware of program planning processes and chose to ignore them. Instead, the evidence suggests that these adults are uninformed about decision-making processes that could facilitate learning.

The second question interviewees were asked about self-planned projects was why they decided to plan the project themselves rather than use an "outside" planner. The question was open-ended; a single

reason was sought for each self-planned project, and responses were reviewed and grouped into general categories which are reported in Table 40. Some women felt qualified to plan the learning project and resorted to an outside planner only when they did not know enough to plan it themselves. Others found the flexibility of fitting self-planned projects into a limited time schedule an important factor; in other instances the possibility of using a variety of resources in self-planned learning was important. For slightly more than 40 percent of the self-planned projects, the reasons cited were that the learner was either not aware of any other planner to use for this project or else the project was of such a personal nature that she felt self-planning was the only way to learn it.

Primary Subject Matter Resources for Learning Projects

Additional insight into the learning style of young mothers comes from analyzing responses to the question "Who or what provided the primary subject matter resource for this learning project"? Examples of interviewee responses were "doctor", "mother-in-law", "printed instruction sheet", "class instructor", or "television." These responses were grouped into predetermined classifications. If the interviewee named more than one primary resource, these were classified in the residual category "mixed." The summary is presented in Table 41.

TABLE 40.--REASONS GIVEN FOR DECIDING TO SELF-PLAN LEARNING PROJECT RATHER THAN USE AN OUTSIDE PLANNER

Number Self-Planned Projects in which Reason Was Given	Reason Given
61	Not aware of any other planner to use for this project
30	Can use a variety of resources by planning it myself
22	Planning it myself is the easiest/best/most satisfactory way to learn this
21	Have limited time and planning it myself fits into my schedule
16	Felt qualified to plan it myself; only use an outside planner when I don't know enough to plan it myself
16	Project was a personal information type and I felt this was the only way to plan it
6	Immediate need to know the information so I couldn't wait for a class
5	Too independent to ask for information
2	Able to get more reliable and accurate information this way
1	Limited money so couldn't afford a class
1	Way to keep up-to-date in interim period until I can go back to college
2	Don't know why I planned it myself
193	

TABLE 41.--PRIMARY SUBJECT MATTER RESOURCE FOR LEARNING PROJECTS

Primary Resource	Learning Projects	
	Number	Percent
Group:	40	14
Group or group instructor	(31)	(11)
Self-formed group	(9)	(3)
Individual:	113	41
Intimate, nonexpert	(64)	(23)
Intimate, also an expert	(4)	(2)
Paid expert	(45)	(16)
Printed materials:	86	31
Books and pamphlets	(42)	(15)
Magazines	(16)	(6)
Newspapers	(11)	(4)
Programmed materials	(17)	(6)
Media:	13	5
TV	(10)	(4)
Radio	....	....
Film	....	....
Recordings	(1)	(0)[a]
Displays and exhibits	(2)	(1)
Other (own experience, observation)	6	2
Mixed (more than one)	18	7
Total	276	100

[a]Less than .5 percent.

Interviewees were able to name a primary subject matter resource in 91 percent of the learning projects. While there was considerable variety in the primary subject matter resource, intimates and printed materials were the most helpful single resource in 56 percent of the learning projects.

A further analysis of the primary subject matter resource in relation to the planner revealed some interesting patterns. As might be expected, when the planner was one person in a one-to-one situation, the primary subject matter resource was that same person. When a project was resource-planned, the primary subject matter resource was programmed materials, television, newspaper, or displays but not books and pamphlets, magazines, or recordings.

A similar relationship between planner and subject matter resource held for self-formed group-planned projects with two exceptions: in one case, the interviewee named the tape recordings used as a basis for discussion as the primary source of subject matter; in another, a paid expert whom the self-formed group had invited to speak was named the primary subject matter resource.

A slightly different pattern emerged when the planner was a group with an instructor. Of the 33 group-planned projects, the primary subject matter resource was the group or its instructor in 28 projects. An additional three cases in which the group or its instructor was named the primary subject matter resource had been self-planned--the class was only one of several episodes in the total learning projects. In five group-planned projects, the primary resource was books and pamphlets (two cases), an expert who was not the instructor, mixed (group members and pamphlets), and a neighbor who was not even a member of the group. Probing on this last response brought forth the explanation that a certain parallel instructor was not a good teacher for this

particular individual and a neighbor who had previously taken a ceramics course provided the most help.

The primary subject matter resource for self-planned projects included almost every category. This is summarized in Table 42.

TABLE 42.--PRIMARY SUBJECT MATTER RESOURCE FOR SELF-PLANNED LEARNING PROJECTS

Primary Resource	Self-planned Learning Projects	
	Number	Percent
Group:	3	2
Group or group instructor	(3)[a]	(2)
Self-formed group	....	....
Individual:	76	42
Intimate, nonexpert	(44)	(24)
Intimate, also an expert	(2)	(1)
Paid expert	(30)	(17)
Printed materials:	75	41
Books and pamphlets	(40)	(22)
Magazines	(16)	(9)
Newspapers	(9)	(5)
Programmed materials	(10)	(5)
Media:	8	4
TV	(7)	(4)
Radio	....	....
Recordings	....	....
Displays and exhibits	(1)	(0)[b]
Other	6	3
Mixed	15	8
Total	183	100

[a]Each was an episode within a self-planned project.

[b]Less than 1 percent.

Intimates, books and pamphlets, or paid experts provided the primary subject resource in 64 percent of the self-planned projects. The paid experts were persons doing this as part of their job and were not paid instructors; the 30 mentions of paid experts included store clerks and other salesmen (17); doctors (10); and other professionals (3). In the 46 mentions of intimates, parents and relatives were named 22 times, friends and neighbors 18, husbands or male friends 6 times.

Early in the interview period, it was observed that a subject matter resource for a particular project often became a consistent contributor throughout several learning projects. This same observation was made time and again. One mother used books heavily throughout all her learning projects; for another it was magazines; for others it was a neighbor, a mother-in-law, or perhaps a friend who played a part in several of the learner's projects. Why was this? It might be because the resource was readily accessible. There might be other reasons--a further question to an interviewee who used books as a resource in every project brought forth one reason. She relied on books because she didn't have many friends. Another interviewee may have relied on books because they had always been an important part of her personal lifestyle.

A related finding was that intimates (usually parents) were often a resource even though they might live halfway across the United States. They even acted as the major planner of short learning projects during

visits--such as the father who taught his daughter to wallpaper or the mother who taught her daughter to upholster a davenport.

In summary, the data indicate that there was a primary subject matter resource for most learning projects. Individuals and printed materials were named as the most helpful single resource in over 70 percent of the learning projects. There was a relationship between the type of planner used and the primary resource named in group, individual, and resource-planned projects.

Degree of Satisfaction with Learning Projects

Interviewees were asked to rate their degree of satisfaction with each learning project on a three point scale: (1) very satisfied, (2) not very satisfied, and (3) halfway between. These data are summarized in Table 43.

TABLE 43.--DEGREE OF SATISFACTION WITH LEARNING PROJECTS

Degree of Satisfaction	Learning Projects	
	Number	Percentage
Very satisfied	211	76
Halfway between	43	16
Not very satisfied	22	8
Total	276	100

Interviewees reported being very satisfied with 76 percent of the learning projects undertaken. They were "halfway between" or "not very satisfied" for the remaining 65 projects (24 percent).

The interviewer observed numerous cases where the interviewee was very satisfied with the learning project yet there was a lack of reliable information and even misinformation as the interviewee described the episodes that composed the learning project. This observation applies only for learning projects in the area of home and family competence, since the validity of the observation was based on the fact that the interviewer's professional training is in home economics. Since close to 60 percent (n=163) of the total reported learning projects were in this subject matter area, it was more than a trivial observation.

It would have been helpful if an additional question had been asked as to why they were not satisfied with the learning project. Since this question was not asked, the data analysis sheets were reviewed for all projects where the interviewee stated she was either "not very satisfied" or "only half-way satisfied" to see if any patterns emerged.

Two patterns did emerge. The first was related to the subject matter classification of the project. Learning projects classified under social and civic competency only accounted for 7 percent (n=19) of the total number of learning projects, yet 42 percent (n=8) of them were classified as either not very satisfactory or halfway between. All eight projects had been self-planned; this finding leads to the speculation that learners may need more help with planning and implementing their learning projects related to social and civic responsibility. Ziegler's model of civic literacy[1] suggests that the reason why individual

[1] Warren L. Ziegler, "An Action-Inquiry Model of Civic Literacy". (unpublished discussion draft, Educational Policy Research Center, Syracuse University Research Corporation, Syracuse, N.Y., 1973), pp. [illegible].

self-planned learning in the area of civic competency is more likely to fail and be judged failure by the participant is because the acquisition of these competencies depends on the intentional interaction of two or more persons. It may also be that learners lack clear goals in the area of civic responsibility; they also may lack planning skills and knowledge of resources.

The percentage of learning projects reported "not satisfactory" or "halfway between" was somewhat lower in the other three categories of subject matter--25 percent (n=37) for personal or family related projects; 23 percent (n=18) for projects classified as self-fulfillment; 10 percent (n=21) for occupational and vocational projects. This may indicate a need for more resources to assist learners, particularly in the areas of personal or family competence, social and civic competence, and self-fulfillment.

The second pattern that emerged was in relation to the day-to-day planner. The data are summarized in Table 44.

The percentages of projects classified in either of the two categories of dissatisfaction were very similar for self-planned (26 percent), group (23 percent), and individual-planned (19 percent) learning projects. There was almost no dissatisfaction expressed with learning projects which were resource-planned (1 percent). In the subsections of group-planned projects, there was a higher percentage of dissatisfaction for groups with an instructor (27 percent) than for self-formed groups (9 percent); in the subsections of projects planned by an

individual other than the learner, there was a higher percentage of dissatisfaction with those projects planned by an intimate (26 percent) than those planned by a paid expert (13 percent).

TABLE 44.--DEGREE OF SATISFACTION WITH LEARNING PROJECTS BY PRIMARY PLANNER

Type of Planner	Total Projects Reported	Projects Classified Not Satisfactory or Halfway Between	
		Number	Percent of Projects in Category
Self-planned	183	47	26
Group	44	10	23
Group with instructor	(33)	(9)	(27)
Self-formed group	(11)	(1)	(9)
Individual	36	7	19
Intimate, nonexpert	(19)	(5)	(26)
Intimate, also expert	(2)	...	....
Paid expert	(15)	(2)	(13)
Material Resource	13	1	1
Total	276	65	..

Responses to the question about additional help needed for self-planned projects suggest that more information about resources might be an aid in reducing the percentage of dissatisfaction. Interviewee comments on group-planned learning with an instructor included such statements as classes were too large, subject matter covered was too

general, and the instructor was not well-versed in the subject or could not answer specific questions.

Since the learner's perception of satisfaction becomes an important criterion for voluntary participation in educational activity, the findings suggest that (1) learners possibly need help in defining valid criteria, and (2) that professional planners need to become aware of the learner's criteria for satisfaction in an individual or group learning experience.

Comparison with Other Studies

A comparison was made between the amount of learning undertaken in this study and the results reported by Tough for both his entire study and also his population of mothers of preschool children. This summary is presented in Table 45.

The reader is reminded that Tough set a minimum of seven hours as a criterion for a learning project, while the present study set the minimum at one hour. A comparison of data[1] for all learning projects with data for projects seven hours and longer showed very little difference in the total time spent in learning projects, in subject matter areas studied, in major planner, or in primary subject matter resource. The differences were in (1) number of learning projects--the mean dropped from 5.8 to 4.2 and (2) the length of learning projects--the mean rose

[1]See appendix D, p. 216 for comparison of data on projects of seven hours and longer with data for all projects.

from 41 to 53 hours when calculated by the individual and from 43 to 58 hours when calculated by project.

In the Tough study, mothers were one of seven populations studied; the populations included professionals, factory workers, and lower-level white collar men and women, as well as mothers. The group of mothers in the Tough study were below average in time spent at learning, though they were not necessarily below average in their number of projects. A comparison of mothers studied by Tough with the mothers in this study shows similar results. The lower averages found in this study can probably be accounted for by two factors: (1) the sample in this study was a random sample from the population while the mothers interviewed in Tough's study were a sample representative of one upper middle-class neighborhood; (2) this study included projects of less than seven hours duration which accounted for the lower mean length of learning projects.

Table 45 also presents data from four recently completed studies of adult high school diploma graduates[1], practicing pharmacists[2], urban professionals[3], and managers and teachers in Ghana.[4] Each study utilized Tough's design and described learning efforts in all aspects of the respondents' lives in the twelve months prior to the interview.

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[1]Johnson, "Learning Projects Pursued by Adults Who Have Earned High School Diploma and/or High School Equivalency Certificate."

[2]Johns, "Learning Projects Pursued by Practicing Pharmacists."

[3]McCatty, "Patterns of Learning Projects."

[4]Denyn, "Learning Efforts of Two Groups of Accra Adults."

TABLE 45.--A COMPARISON OF SUMMARY STATISTICS FROM SIX RESEARCH STUDIES

	Tough		Coolican[a]	Johnson	Johns	McCatty	Denys
	(entire study) N=66	(mothers only) N=10	(mothers) N=48	(GED grads.) N=40	(pharmacists) N=39	(executives) N=54	(African professionals) N=40
Number learning projects conducted during last 12 mos.							
Mean	8.3	7.2	5.8	14.4[d]	8.4	11.1	4.8
Median	8	6.5	5.6	13.0[d]	8.8	10.3	4.8
Range	0-20	0-20	2-12	6-29	1-22	2-31	1-12
Percent of participation	98%		100%	100%	100%	100%	100%
Total estimated time spent in hours							
Mean	816	331	250	877[d]	1046	1244	430
Median	687	271	167	771[d]	558[c]	1058	376
Range	0-2509	0-1039	30-1016	330-2405	31-6165	157-4233	20-1324
Length of learning projects in hours							
By individual: Mean	104	47	41		151[cd]	123	92
Median	81	46	32		92[cd]	103	89
Range	13-464	13-115	8-138		8-846[cd]	25-529	10-189
By project: Mean			43	61	124	112	90
Median			21			49	50
Range			1-492		7-3000[c]	7-1646	7-540
Current status of projects							
Active	66%		67%	52%	75%		
Completed	34%[b]		25%	25%	16%		
Inactive			8%	23%[b]	9%		
Dropped			0%				

TABLE 45.--Continued

	Tough		Coolican	Johnson	Johns	McCatty	Denys
	(entire study)	(mothers only)					
Learning for credit							
Credit	1%		1%	23%	5%	1%	7%
Noncredit	99%		99%	77%	95%	99%	93%
Planner type							
Self-planned	68%		66%	60%	56%	76%	75%
Group-planned	12%		16%	23%	16%	11%	11%
One-to-one	8%		13%	14%	9%	7%	6%
Institute/material	3%		5%	3%	19%	1%	4%
Mixed	9%		...	...	...	5%	3%
Subject matter areas studied							
Vocational			6%	11%	30%	5%	39%
Personal development			12%	..	9%	5%	13%
Home and family			47%	23%	14%	9%	9%
Public affairs			7%	9%	10%	9%	13%
Hobbies/recreation			20%	[57%[b]]	26%	15%	6%
Religious			3%		3%	3%	7%
General education			5%		9%	4%	7%
Farming			..	..	..	..	6%
Major method of learning by order of use				Practice Reading Discussion Listening Observation Viewing Other	Practice Reading Discussion Listening TV and Radio Observation Instruction Other	Reading Discussion Practice Observation TV and Radio Other	Reading Listening Practice Searching Discussion Observation

TABLE 45.--Continued

	Tough		Coolican	Johnson	Johns	McCatty	Denys
	(entire study)	(mothers only)					
Primary subject matter preference for all projects			23% Intimate 16% Paid expert 15% Books 11% Group or instructor 6% Magazines 6% Programmed materials 4% Newspaper 4% Television 3% Self-formed groups 2% Intimate expert 2% Observation and experience 1% Exhibits 7% Mixed				

Note: Sections where no data are reported indicate that data were unavailable.

[a]Data include projects of less than seven hours. See appendix D, p. 216 for data on projects of seven hours and longer only.

[b]Investigator combined categories indicated.

[c]Data supplied by author through correspondence.

[d]Data computed by this investigator.

Comparisons must nonetheless be cautious and tentative at this stage. The studies varied in their populations and methods of sample selection. None of the studies was a survey of the general adult population. No coefficients of interviewer reliability were established among the various interviewers engaged in the six studies. With these limitations in mind, the following tentative conclusions are set forth regarding the learning activities of adults:

1. Although the degree of participation varies, almost every adult undertakes learning activities in any given year.

2. Learning for credit constitutes only a minor proportion of the educational behavior of adults.

3. Most learning activities are initiated for practical reasons--to acquire knowledge and skill related to one's job, home, family, sport, or hobby.

4. Some clear differences exist among populations in the amount of time spent in learning activities but not in the number of learning projects undertaken. These differences also exist within the same population.

5. The typical adult spends from thirty to one hundred hours average time on a learning project.

6. The percentage of learning projects undertaken in the areas of (a) vocational or occupational competence, and (b) home and family competence appears to vary with different groups of adults.

7. The percentage of learning projects undertaken in the areas of (a) public affairs, (b) religion, and (c) general liberal education does not vary to any great extent among different groups of adults.

8. The major planner of adult learning activities is the learner himself. Self-planned learning accounts for approximately two-thirds of the total learning efforts of adults.

9. Group-planned learning activities account for 10 to 20 percent of the total learning efforts of adults.

These studies have added to the growing knowledge of participation research that focuses on the individual learner. They have furthered our knowledge about the concept of self-planned learning. They have also shown that the amount of adult learning effort is extensive and that much of it occurs outside adult education institutions.

This study of mothers of young children seems consistent with the generalizations that are emerging pertaining to adult learning and self-planned learning. It is fairly clear, however, that young mothers, by comparison, have engaged consistently in fewer learning activities than other groups of adults.

CHAPTER V

UTILIZATION OF INFORMATION SOURCES

Overview

This chapter is devoted to a discussion of the data pertaining to patterns of information seeking. The findings are organized in the following sections: transportation facilities, membership in organizations, use of mass media, obstacles to learning, knowledge and use of adult education institutions.

Transportation Facilities

In order to better understand the mobility of this population, data were gathered on the availability and use of both the family car and the bus. Almost all subjects had a driver's license (94 percent) and two of the three subjects without a license were currently taking driving lessons.

Only 6 percent did not have any use of the family car in the daytime, and this figure dropped to 2 percent for evening use. In the majority of cases, use of the family car necessitated driving a husband to work. Bus transportation was available within walking distance for 50 percent, yet only five subjects (10 percent of the sample) ever used the bus.

These data would indicate that most young mothers had transportation available when the need arose and use of the family car was important enough for them to make the effort to drive their husbands to work. Most did not have to rely on bus transportation even though it was available to at least one-half of the subjects.

Membership in Organizations

Interviewees were asked to list the organizations to which they belonged in the past year. The data are summarized in Table 46.

TABLE 46.--MEMBERSHIP IN ORGANIZATIONS

Number of Organizations	Total Sample		Group 1		Group 2	
	Number	Percent	Number	Percent	Number	Percent
0	36	75	23	96	13	54
1	10	21	..	..	10	42
2	2	4	1	4	1	4
Total	48	100	24	100	24	100

Seventy-five percent of the study sample reported no memberships in any organization during the past year. Of the 25 percent who held membership in an organization, 21 percent (n=10) belonged to only one organization and 4 percent (n=2) belonged to two. When organizational membership was viewed by groups, quite a different pattern emerged. In Group 1, mothers with the oldest child under 30 months, only one woman belonged to any organization and she was a member of two. The

remaining organizational memberships were held by Group 2 mothers, whose oldest child was between 30 and 64 months.

A mother of three children commented in the interview that when she had only one child she was perfectly content to stay at home and take care of the baby and home; now that she had three children she felt closed in and needed to get out. This comment suggested that the different pattern of organizational membership might be due to the difference in the stage of the family life cycle. If this is true, there may be more potential for group participation in adult education programs for mothers whose children are a little older.

While organizational membership was relatively insignificant, those who did belong were active. "Active" was defined as attending at least 50 percent of the meetings and/or holding office or serving on a committee. In only one case was the organizational membership not active during the past year.

Organizational memberships were categorized into eight predetermined types of organizations: (1) religious, (2) fraternal, (3) service, (4) civic and political, (5) nationality or patriotic, (6) recreational, sports and hobby, (7) educational, and (8) occupational. Membership was held in only four of these categories (Table 47).

Only twelve of the forty-eight women in the study sample held membership in any organization; the total number of organizational memberships held was fourteen. Fraternal and social organizations accounted for 50 percent (n=7) of the memberships--one was in a

fraternal organization, the other six memberships were in social organizations (Newcomer Clubs, sorority, and craft clubs).

TABLE 47.--TYPES OF ORGANIZATIONAL MEMBERSHIP

Types of Organizations	Total Sample	Group 1	Group 2
	No. Memberships	No. Memberships	No. Memberships
Religious	3	.	3
Fraternal and Social	7	.	7
Civic and Political	2	1	1
Recreational, Sports and Hobby	2	1	1
Total	14	2	12

Membership in organizations was not an important part of the life-style of mothers with young children. Findings in this study were consistent with an observation made in a recent newspaper article[1] which pointed out that younger women want to do things on an individual basis or with a few other persons their own age and at a time that can be fitted into their family schedules.

Use of Mass Media

Mass media consumption is an integral part of information-seeking behavior. Use patterns involving four media--television, radio, newspapers, and magazines--are presented below.

[1] Virginia L. Warren, "In the Last Decade, Fewer Women's Clubs With Fewer Members", New York Times, January 28, 1973, sec. 1 (Part 2), p. 56.

Television

The television set has assumed the status of a necessity in this generation; its presence and use are unquestioned. All households had at least one television set; almost two-thirds had two or more sets. Mothers spent an average of three and one-half hours per day viewing television, although the time spent ranged from one to eight hours. Most reported "listening" to television many more hours than this. The time reported was limited to viewing time; however this could include doing some household task, such as ironing, at the same time.

There were three commercial and one educational television stations serving the households. Subjects were asked which local station they watched most frequently. About one-third indicated Station A (CBS affiliate) and just slightly less than one-third indicated Station B (NBC affiliate); the other third said they had no one particular station they watched most frequently. Station C (ABC affiliate) was mentioned by only 2 percent (n=1), and no one named the educational station.

An additional question about the educational station revealed that 94 percent of the homes received the channel, yet 35 percent never watched it, 50 percent watched it occasionally, and only 15 percent watched it frequently. The only reported use of educational television in learning projects was a series on "Buying a House" and another on American History.

These findings indicate that in areas served by several television stations, certain stations were viewed more frequently than others.

This implies that surveying their intended audience as to stations viewed should enable adult educators to better utilize the television media.

Radio

There were seventeen local radio stations--eight AM and nine FM stations. Every household had at least one radio and 83 percent of the households could receive both AM and FM stations. The average hours of radio listening a day reported was three, but the range was from zero to fifteen hours.

Two of the eight AM stations were clearly the ones listened to most frequently. Station A, listed by 29 percent, is an ABC affiliate although they have localized, not network, newscasts. This station is on the air 24 hours, 7 days a week; it has a consistent format--regularly scheduled segments of information such as news every hour on the hour, traffic reports 15 and 45 minutes after the hour. Its prime audience is the middle adult range--ages 20 to 50, and it is characterized by its contemporary adult music. Station B, named by 25 percent, is a CBS affiliate. Its programming is not as localized as Station A, but its music is similar; it is strong in programming for the young homemaker.

One of the nine FM stations was named by 45 percent of the study sample as the FM station listened to most frequently. This is a full-stereo station with a format of "beautiful music"; it allows only four breaks per hour--the rest is uninterrupted music segments. Fifty per-

cent of the study sample either could not name the FM station they listened to most frequently or else the station was outside the local area.

These findings also indicated that certain radio stations were listened to more frequently than others. These data would be useful for adult educators in program promotion. It should be noted that no subject named the radio as a possible resource for her learning projects nor used radio as a resource in any learning episode.

Newspapers

Seventy-six percent of the sample read a daily newspaper almost every day or more often than once a day. However, they indicated that in many cases this meant a "skimming" type of reading. Table 48 shows the reading pattern in greater detail.

TABLE 48.--READING PATTERN FOR DAILY NEWSPAPERS

Frequency	Total Sample	
	Number	Percent
More often than once a day	8	17
Almost every day	29	60
Almost every other day	2	4
Once or twice a week	4	8
Sometimes, but less than once/week	..	..
Never read a daily newspaper	5	10
Total	48	99

Ten percent never read the daily newspaper and an additional 12 percent read one only a few times a week. Since two daily newspapers are published in the metropolitan area, subjects were asked which newspaper they read. A majority (56 percent) read the evening paper while 13 percent read the morning paper; 17 percent read both, and 4 percent read a daily newspaper published outside the metropolitan area in combination with one of the local newspapers. The local Sunday newspaper was read by 92 percent of the study sample.

A somewhat different pattern emerged when subjects were queried about the reading of weekly newspapers. Seventy-five percent did not read any type of weekly newspaper; 19 percent read the local village weekly and 6 percent reported the only weekly they read was a church published newspaper.

Another type of newspaper, commonly referred to as the "Pennysaver," is published in this area. The majority of space is devoted to want ads but it does include short articles of a local nature. Slightly more than two-thirds of the sample read the Pennysaver on a regular basis.

While patterns might vary from one locality to another, these findings indicate that a knowledge of the reading patterns of newspapers can be helpful to adult educators for both promotion and information-type newspaper articles. For the locality in which this study was conducted, the daily evening newspaper has considerably more potential for reaching young mothers since 73 percent read this news-

paper compared with 30 percent who read the morning newspaper. Weeklies published by various villages were not read as frequently as might be expected but the "Pennysaver" weekly was read more frequently than might be expected. This suggests a possible potential for utilizing the "Pennysaver" for short promotional articles.

Magazines

Interviewees were asked to enumerate the magazines they read regularly--that is, almost every issue. Ninety-two percent (n=44) of the study sample read at least one magazine on a regular basis. The number of magazines read ranged from 0 to 11; the mean was 3. The 155 magazines enumerated were categorized into 6 predetermined groupings. This pattern of magazine reading is summarized in Table 49.

TABLE 49.--PATTERN OF MAGAZINE READING

Category of Magazines	Number Read	Percentage of Total Number
Home and Women's	113	73
News	9	6
Sports, Hobbies, Travel	7	4
Business or Professional	1	0[a]
Religious, Farm and Membership	..	..
General and Light Fiction	25	16
Total	155	99

[a]Less than 1 percent.

Home and women's magazines were the most frequently read, accounting for 73 percent of the total number. All other categories of

magazines were used infrequently. It should be noted however that fourteen of the twenty-five listings in the general and light fiction category were one magazine--Readers Digest.

Since home and women's magazines represented such a high percentage of the total magazine reading, a reading pattern for that category is shown in Table 50.

TABLE 50.--READING PATTERN FOR HOME AND WOMEN'S MAGAZINES

Magazine	Number Who Regularly Read	Percent of Total Sample (N=48)
Better Homes and Gardens	16	33
Good Housekeeping	11	23
Ladies Home Journal	11	23
McCalls	11	23
Redbook	11	23
Womans Day	11	23
Family Circle	10	21
Parents	10	21
Glamour c demoiselle	5	10
House Beau ful	3	6
American Home	2	4
Cosmopolitan	1	2
House and Garden	1	2
Miscellaneous	10	21

Forty of the forty-eight interviewees (83 percent) read at least one magazine in this category. The range was from zero to nine; the average was two magazines. Better Homes and Gardens was the magazine read most frequently but there were eight magazines read regularly by more than 20 percent of the study sample.

These findings indicate that except for magazines classified as home or women's magazines, mothers of young children do not regularly read many magazines. A knowledge of the reading pattern of home and women's magazines could be helpful to adult educators in several ways, such as using examples from Better Homes and Gardens rather than House Beautiful or House and Garden for interior decorating classes, or using articles from frequently read magazines as case studies or as aids in helping young mothers learn to evaluate the reliability of information on a given subject.

Obstacles to Learning

Every person has things she wants to learn but for one reason or another she sometimes fails to reach her goal. Something may be started and not completed, or perhaps it is never begun. Subjects were asked what obstacles prevented their not starting or not completing things they wanted to learn. The question was open-ended and respondents could give more than one reason. Similar responses were grouped into general headings and are summarized in Table 51.

The number of reasons given by each interviewee ranged from 1 to 4. The mean was 2.4; the total number of reasons given was 116.

The three most frequently mentioned reasons were limited time and energy, limited money, and priority of family obligations at this point in time. A closely related reason was their difficulty in locating baby-sitters they could trust. These four reasons were all related to

TABLE 51.--OBSTACLES TO LEARNING

Reasons Given	Number of Mentions (N=116)	Percentage of Sample (N=48)
Limited Time and/or Energy home (and work) responsibilities leave little time; don't like to start things if can't have time to finish; must choose what is most important to fit into limited time.	36	75
Limited Money	22	46
Family Obligations Which Take Priority satisfied now with just taking care of baby and home; family commitment comes first; can't plan ahead--kids get sick or husband out-of-town so I'm tied down.	10	21
Child Care lack of good baby-sitters, especially in daytime; difficult to find baby-sitter I can trust.	7	15
Never Getting Started on a Learning Project lazy, need strong drive to do things; lack interest in things; great procrastinator; not enough motivation; fear of challenge; fear of failure; no practical use for some things.	10	21
Learning Beyond Capability of Learner just too hard; get frustrated when don't understand/when doesn't go right and quit.	8	17
Changing Interests get bored if it doesn't hold my interest; lose interest easily (short interest span).	7	15
Limited Learning Resources don't know where to go for resources; poor teacher; conflicting information frustrating.	7	15
Lack of Transportation	5	10
Lack Companion to Accompany Me To Things	2	4
Husband's Attitude husband doesn't want me to go out; conflicting interests with husband.	2	4

their current stage in the family life cycle, and together they accounted for 65 percent (n=75) of the 116 mentions.

Twenty-one percent of the sample specified reasons why they never got started on learning projects; these reasons included those related to motivation and practicality of the learning. Three other categories of reasons were related to obstacles once a learning project was underway--learning beyond the capability of learner, changing interests, and limited learning resources. Lack of transportation, lack of companion to accompany subject to events, and husband's attitude were other reasons cited as obstacles to learning.

Data collected on obstacles to learning would have been more complete if the interviewer had probed for additional reasons rather than merely asking the one open-ended question. The reason given by the ten interviewees who gave only one response to this question was always one of three--limited time, limited money, or family obligations. These may have been excuses as much as obstacles. It was when the interviewee gave two, three, or four reasons that she got into the area of obstacles related to starting or continuing a learning project. The data collected began to give insight into this, but further probing for additional reasons and the meaning of the responses could be recommended in future studies.

Knowledge and Use of Adult Education Institutions

To determine interviewees' knowledge and use of adult education institutions, data were compiled from two sources. First, interviewees were asked to name the organizations, agencies, and places they knew about that might have information to assist them in learning projects. The interviewer explained this information might include expert advice, printed materials, counseling, or classes. Second, a list of institutions which the interviewee had used during the past year in her learning projects was compiled from the interview data sheets. Information from these two sources was then categorized under four headings: (1) institutions used but not named, (2) used and named, (3) named but not used, and (4) neither named nor used. These data are summarized in Table 52.

Five adult education institutions were each named by more than 25 percent of the study sample as potential information sources. These five institutions and the percentage of sample who named them were: libraries, 54 percent; public schools, 41 percent; colleges and universities, 29 percent; Cooperative Extension, 27 percent.

These institutions are among those generally considered to be major institutions of adult education, yet the recognition factor was lower than one might expect. Even with the highest recognition factor, these five institutions were not used as a resource by subjects to any great extent as reflected by the data in Columns 1 and 2, Table 52.

TABLE 52.--RECOGNITION AND USE OF COMMUNITY ADULT EDUCATION INSTITUTIONS

Type of Institution	Percent of Sample Who (N=48)			
	Used But Not Named (1)	Used and Named (2)	Named But Not Used (3)	Neither Named Nor Used (4)
Television	42	.	2	56
Business and Industry	35	4	19	42
Religious Institutions	19	.	6	75
Public Schools	6	8	33	52
Health and Welfare Agencies	8	6	25	60
Libraries	2	8	46	44
Voluntary Organizations	4	4	13	79
Correspondence Schools	4	.	..	96
Cooperative Extension	..	4	23	73
Colleges and Universities	2	.	29	69
Government Agencies	..	2	17	81
Museum	2	.	15	83
Professional Societies	..	.	2	98
Business and Vocational Schools	..	.	..	100
Radio	..	.	..	100

Note: Institutions Used = 1 + 2
Institutions Named = 2 + 3

The three institutions used as a resource by more than 15 percent of the study sample were: television, 42 percent; business and industry, 39 percent; religious institutions, 19 percent. Business and industry was named by 23 percent of the sample, religious institutions by 6 percent, and television by only 2 percent. Thus, institutions identified with adult education were seldom used by the subjects whereas three institutions--television, business and industry, and religious--were used more extensively but were not identified with adult education. A discussion of the use pattern of each institution follows.

Public schools

Only 14 percent of the study sample had participated in the public school adult education program in the past year. Seven women had each enrolled during the previous twelve months in one class on the following subjects: bookkeeping, sewing, program for mothers of prekindergarten children, cake decorating, drug seminar, physical fitness, and golf. Five of the seven were in the area of personal or family competence; one was job related; one was in recreation.

The North Syracuse school district has one of the largest public school adult education programs in upstate New York. Promotion is extensive and includes distribution of a complete program listing to every household in the district twice a year. Interviewees should be aware of and would have easy access to this program. Yet only 41 percent of the sample named public school adult education as a potential

information resource and only 14 percent used this agency during the year.

Public school adult education has one of the greatest potentials for serving young mothers. They have the facility for direct mail promotion into every household. Their program is based in the community within easy travel distance; classes are offered in the evening when more young mothers have access to the family car and have husbands as baby-sitters. Many classes offered by public school adult education are in subject matter areas that interest young mothers--home and family competence and self-fulfillment. However, they need to experiment with methods other than traditional classes.

Television and radio

There are three commercial and one educational television stations serving the metropolitan area. As reported earlier in this chapter, all households had at least one television set; 94 percent of the homes could receive the education television channel.

Ninety-eight percent did not list television as a potential information source which supports the premise that television is viewed as an entertainment rather than as an educational medium. However, when one looks at the data on use of television as an information source, the opposite is true--42 percent of the study sample had used television as an information source during the past year. This percentage represented the highest use of any of the fifteen institution categories.

Commercial, rather than educational, television was used for episodes within larger learning projects. Although there were examples where entire programs were used as episodes, well-defined segments within a particular television program were frequently used. For example, two women included episodes that were ten-minute segments on gardening carried as a regular weekly feature of a locally produced women's program. Another women viewed an interior design segment for five weeks on the same program. There were also examples of segments on children's toys, child care, and sewing within other programs. One learning project included a four-week series on "Buying a House" while another included an eleven-week series on American history. There were several instances of the use as learning episodes of television news, and of programs related to national elections.

These data suggest that further development of television as one of the primary information resources for young mothers has greater potential than might have been expected. It has the advantage of reaching them directly in the home with no cost to them--two important factors at this stage in the family life cycle. It could become an important aid to self-planned learning.

The average hours of radio listening a day which subjects reported was three, yet radio played no role in the learning activities of this group. There was no use of radio as an information resource nor was it named as a potential resource. This leads to the speculation that its role might be one primarily of promotion, although adult educators should be challenged to use radio more creatively.

Cooperative Extension

Seventy-three percent of the sample neither listed this institution as a resource nor used its services during the past year. Of the remaining 27 percent who had a knowledge of the agency, only 4 percent uses it as a resource during the past year. The two uses cited were direct phone calls to the agency for information.

This has implications for several reasons. First of all, Cooperative Extension is an institution whose primary purpose is adult education. Second, a major subject matter focus is in home economics, the area that represented 59 percent of the total learning efforts of young mothers. Third, it is an institution which, in this metropolitan area, has used a variety of teaching methods. In addition to classes, consumers may receive information through letter series, home study packets, bulletins and publications, telephone answers to consumer questions, and mass media. Yet in spite of this, only 4 percent used this institution as a resource during the past year.

One problem may be not only lack of knowledge of Cooperative Extension as a potential resource but also limited knowledge of its range of program, both subject matter and method. Comments made by interviewees as they named this institution indicated they perceived it as a place to use for one specific thing, such as a place to call for answers to questions on food and nutrition. They had no idea Extension programs included other subject matter nor did they realize there

were additional ways of getting information other than through phone calls.

Cooperative Extension, like public school adult education, should be one of the major resources for young mothers. Its strength is that its program information is unbiased, reliable, and backed by research. Better program promotion may be one answer to increased use of this institution.

Business and industry

In this study, business and industry was used by the subjects in their role as consumers seeking information about products. No subject participated in the systematic adult education courses and programs provided by business and industry for employees. In a metropolitan area, there is a greater number of businesses and they are larger than one might find in a more rural area. Twenty-three percent of the study sample named business as a potential source of information but a higher percentage (39 percent) used it for a source of information. Women frequently reported obtaining information from store clerks, garden centers, lumberyards, car dealers, real estate agents, and business-sponsored Home Shows. This represented the second highest information source use even though business and industry represents an institution type which is concerned primarily with other goals but uses adult education in order to achieve them. Business employees can and do provide consumer information but in many cases this information is biased

towards sales. Stores in particular do not see the need to provide consumer education training for their sales clerks; yet women are relying on these clerks for information to a much greater extent than they are on adult education institutions whose primary purpose is to provide unbiased consumer information. Why is this? It may be because women have easy access to store clerks and expect them to be a reliable information source. It may be women are not aware of other sources to use; it may be they are not willing to make the extra effort needed to seek out reliable information. This does raise the question, however, of the reliability of consumer information obtained from consumer suppliers--manufacturers, salesmen. Perhaps this information should be compared with information from alternative sources.

Religious institutions

Until fairly recently, religious institutions have been concerned primarily with programs for youth; adult education was more of an afterthought. Methods of instruction with adults were only extensions of those used with children. A change became evident in the 1960's with the current concept being that of renewal. Less and less emphasis is on conversion and more concern is shown for renewal and deepening of commitment within the ranks of the vast majority of the population who claim a religious faith, but whose relationship to the church is nominal.

Use of religious institutions ranked third with 19 percent of the sample using this institutional source in their learning. Of the nine

women reporting, two had attended a series of training sessions on teaching Sunday School, one was participating in a church-sponsored discussion group, and another attended a marriage retreat. The remaining women (n=5) sought individual counseling. Though this institution ranked third in use, only 6 percent of the study sample named it as an information source.

Health and welfare agencies,
Government agencies

These two categories of adult education institutions differed from some others in that a varied assortment of agencies made up the category. The health and welfare category included such agencies as Planned Parenthood, Visiting Nurses, Red Cross, Heart Association or Cancer Society; family service agencies such as Social Services; and Settlement Houses. Government agencies included those at all levels of government--municipal, county, state, and federal. There was a myriad of agencies in these two categories in the metropolitan area. A few agencies offered programs for groups, but the major program emphasis was on the individual method (telephone, printed material, counseling).

Thirty-one percent of the study sample were familiar with health and welfare agencies; they ranked third in level of recognition since fifteen named at least one agency that fell into this category. Fourteen percent had sought information from this type of institution during the past year. In addition to the two individuals who had enrolled in a

Red Cross first aid course, others used individual counseling and pamphlets. One couple sought professional counseling from the newly established community family-debt counseling service. There was not as sharp a contrast between the percentage who named health and welfare agencies and the percentage who used them as there was for most other institution types.

Government agencies played a minor role--they were mentioned by 19 percent of the study sample but used by only 2 percent. One person had used the Consumer Protection Bureau as an information resource.

Libraries

Books and pamphlets were one of the most often used primary resources in the learning projects reported. Yet, it was observed, interviewees did not directly use libraries. They either purchased books or borrowed them from friends or neighbors. Libraries were named as an information source by 54 percent of the study sample--the highest percentage of mention of the fifteen different institutions. Yet only 10 percent had used a library in the past year. Why is it that libraries played such a minor role as an information resource? Interviewees' comments about limited resources at the local library might be one clue; the library was only open afternoons. The library might not be the best resource for information on the majority of topics studied by this group and subjects may not have perceived the role of librarian as that of a person offering information or help. Interviewees may

have lacked the skills necessary to use a library effectively. The availability of inexpensive paperback books in a wide range of subjects may also have affected the use made of libraries.

Museums

Only 15 percent of the subjects perceived museums as a resource for information, and only 2 percent used a museum as a resource for learning during the past year. There are at least three museums in the immediate metropolitan area; only one was mentioned and it was the one which did offer classes and was located in the central city.

One woman had made an effort to visit museum exhibits during lunch hour since her place of employment was only a block away. The centralized location of the museum may hinder wider use. The fact that learning projects in the area of liberal education played such a minor part of the total learning efforts of young mothers may have influenced the limited use of this institution.

Voluntary organizations

This institution type includes women's, fraternal, service, parent education, and public affairs groups. This category was named by 17 percent but only one specific organization--YWCA--was named or used. The four individuals (8 percent) who used the YWCA as a learning resource attended classes in either golf, tennis, interior decorating, or handling a preschool child in the water.

The limited knowledge and use of voluntary organizations might be related to the earlier finding that membership in organizations was not part of the lifestyle of mothers who have young children. It might also be that voluntary organizations are not providing enough program offerings in the areas of need and interest to young mothers. The potential for further development of this institution as a learning resource for mothers of young children requires further study.

Colleges and universities

Twenty-nine percent of the sample listed colleges and universities as a possible resource for their learning, yet only two percent used this institution as a resource. One individual was enrolled in two graduate courses. It is interesting that the university she attended was located in an adjoining county; it was a public-funded institution whose tuition was lower than the private universities offering graduate courses in the county where the subject lived.

One possible explanation for the fairly high recognition-low use relationship was that colleges and universities were perceived as providing learning activities for credit. However, participation in credit courses was found to be a very insignificant part of the total learning efforts of mothers of young children.

Colleges and universities in the metropolitan area also offered a wide range of noncredit continuing education programs, y none of them was used as a learning resource. Cost may have been a factor;

another factor may have been that college and university continuing education programs were planned for groups and this type of planner was used in only 16 percent of the total learning activities of young mothers. The subjects offered by this institution may not have been the most relevant for young mothers. The time schedule of classes may not have fit the subjects' lifestyles, and the centralized location may have hindered participation. For these reasons, college and university adult education may not be an appropriate institution to serve this audience.

Business and vocational schools,
Professional societies,
Correspondence schools

None of these institutions was perceived as a major resource for learning activities undertaken by mothers of young children. These institutions were also lowest on the scale with respect to use. There were many business and vocational schools in the metropolitan area ranging in subject matter from business, hairdressing, or modeling to paraprofessional training of medical-dental assistants. Lack of availability, therefore, was not the reason why this institutional type was not used at all. Rather the explanation probably lies in the relationship between the stage of the family life cycle and labor force status. Forty-two percent of the subjects worked, but ten of the twenty working mothers only worked part time and their jobs were primarily in sales and clerical, semiskilled or unskilled categories. Professional

societies were insignificant as an institutional source probably because only two subjects were employed as professionals.

Two women were taking a correspondence course. One mother was enrolled in a correspondence course from the John Tracy Hearing Foundation as one of several episodes in a learning project related to her child's hearing problem. The second mother was following a job-related correspondence course her husband was enrolled in. Her purpose was to increase her understanding of his job. Correspondence schools may have played an insignificant role because they may have been perceived primarily as a source of vocational education. Also, most people are not aware of correspondence courses unless they hear about them indirectly--such as the young mother who was told by her doctor about the correspondence course from the John Tracy Hearing Foundation.

Summary

A study[1] conducted in 1967-68 in the Syracuse urbanized area found that by conservative estimate, more than one thousand different organizations, agencies, and noneducational institutions conducted adult education activities. Findings from this present study indicated that, in spite of this, young mothers had a limited knowledge of the learning resources currently available from adult education institutions. In addition they did not rely on the established adult education institutions to any great degree except for television, business and industry,

[1] Ivan M. Loppin, "Survey Shows Adult Education in Syracuse," Link, [illegible] of University College of Syracuse University, 22:1 (September, [illegible]), p. [illegible].

and religious institutions. Even for these three institution types, only 19 to 42 percent of the study sample took advantage of their resources.

Why is it that the established adult education institutions played such an insignificant role in the total learning efforts of mothers of young children? Their limited knowledge of available resources may have been one reason, but even where the recognition factor was highest, the institutions were still not used to any great extent. Data did not support a possible explanation based on the relationship to prior level of education or satisfaction with prior schooling--the median educational level was 13 years and 60 percent had a positive attitude towards school. There must have been other reasons.

Why didn't young mothers make more use of group learning? Their stage in the family life cycle, limited time and money resources, and the problem of finding a trustworthy baby-sitter that they could afford may have been contributing factors. Their learning needs were often immediate and did not fit into a schedule of classes starting on a certain date. Self-planned learning seemed to be the answer. Another observation was that many of the things they learned were very personal. They may not have been willing to put their personal or intimate needs on public display or to share them except on the basis of trust, confidence, and intimacy with husband, relatives, and close friends.

CHAPTER VI

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

Overview

The primary purposes of this chapter are to summarize major findings of the study and suggest implications for the theory, research, and policy of adult education.

Purpose and Methodology of the Study

The primary purpose of this study was to investigate the learning activities of mothers whose oldest child was not yet in school. While all learning activities of this group were studied, special attention was given to their self-planned learning projects. A second purpose was to describe the educational information sources utilized by this group and to delineate the policy-coordinating issues for adult education.

The following questions provided the focus for the investigation:

1. How much learning was undertaken in the past twelve months?
2. What were the relationships among certain personal and socioeconomic characteristics--age, level of education, attitude towards school, family status, labor force status, family income, social position, husband's attitude toward wife's learning--and the extent of learning activities conducted?

3. What broad educational purposes were most important--learning for occupational, vocational, and professional competence; personal or family competence; social and civic competence; or self-fulfillment?

4. Who or what was the major planner for the learning projects?

5. Who or what was the major subject matter resource for the learning projects?

6. How much learning was self-planned? What was the extent of self-planned learning in each area?

7. For the self-planned projects conducted, what were the reasons why the learner planned the project rather than relying on an "outside" planner? At what point(s) within the learning project would the learner have liked more help?

8. What aspects of the delivery system of institutional adult education were used?

9. What additional learning would the mother like to undertake in the next twelve months?

10. What were the obstacles blocking learning?

In order to answer these questions, a probing, two-hour interview was used to solicit the necessary information. A revised form of the Tough interview schedule (Appendix B) provided the guide for collecting information related to learning projects conducted during the past year. Lists of subject matter areas and possible learning methods were used to stimulate recall. A demographic questionnaire designed by the investigator was used to collect information on personal and socioeconomic characteristics, utilization of information sources, and knowledge and use of adult education institutions.

The sample selected for study consisted of fifty mothers residing in a suburban school district located in Onondaga County, New York. The

sample was divided into two independent samples of equal numbers: Group 1 included mothers whose oldest child was between 9 and 30 months of age; and Group 2 included mothers whose oldest child ranged in age between 30 and 64 months of age.

Three criteria were specified for the study sample--residence in the school district; member of the white race, since the school district was predominantly white; no full-time school attendance for one year prior to the time of the interview.

Interviews were conducted by the researcher in a five-week period during April and May, 1973. All interviews were held in the homes of the subjects; forty-eight usable interviews were completed (twenty-four from each group). Data were analyzed on an IBM-360/65 computer, using the Statistical Package for the Social Sciences (SPSS) computer program.

Major Findings of the Study

The two groups differed, by design, in the stage of the family life cycle. They did not differ significantly from each other in the variables of family status, age, educational level, attitude towards school, social position, status in the work force, family income, or husband's attitude towards the wife's learning. Therefore, differences in the kind and extent of learning activities cannot be attributed to any of the eight variables tested.

The "typical" mother in the study sample can be described as follows: She was white, aged 26, married and living with her husband in an urbanized area in the suburbs of a central city of 200,000 population. She completed 13 years of formal school and had a positive attitude about school. She might or might not work for pay but if she did, she spent about 30 hours a week in the labor force. She and her husband had an annual family income of almost $13,000 and she had the supportive approval of her husband towards her learning efforts.

Extent of learning activity undertaken in the past year

In measuring the extent of learning participation, two dimensions were considered--the number of learning projects and the number of hours. All 48 interviewees had undertaken at least 2 learning projects during the past year, which was a participation rate of 100 percent. A total of 276 learning projects was conducted; the average number was 6.

During the twelve months prior to the interview, the 48 interviewees devoted an estimated 12,002 hours to deliberate learning efforts. This was an average of 250 hours or 30 eight-hour days per year, per person. The median number of hours was 167 while the range was from 30 to 1016 hours.

The mean length of time spent per learning project was 43 hours when calculated weighing each project equally. This was similar to the mean length of 41 hours spent per individual in each learning project.

The median length of time per project was 21 hours, and the range was from 1 to 492 hours. The median length of time per project by individual was 32 hours, with a range from 8 to 138 hours.

Twenty-seven percent of the total learning projects reported were less than seven hours in duration; 81 percent of the study sample reported at least one project of less than seven hours. Only 3 percent (n=10) of the total number of learning projects reported were longer than 200 hours each.

There were no statistically significant differences between the two groups in either the number of projects conducted or the total number of hours spent. The difference in family life cycle stage did not account for any significant variation in the amount of learning activity among the young mothers in this study.

Status of learning projects at time of interview

Twenty-five percent of all reported learning projects had been completed during the year; 67 percent of the projects were still active at the time of the interview, and 8 percent were inactive. None of the projects undertaken in the past year had been dropped.

Degree of satisfaction

Interviewees reported being "very satisfied" with 76 percent of the learning projects undertaken. They were "not very satisfied" with

8 percent, and "halfway between" in satisfaction with the remaining 16 percent.

Learning for credit

Another finding of this study was that few learning projects were undertaken for academic credit. Only 4 of the 276 learning projects reported were for credit--approximately 1 percent of the total.

Subject matter studied

Subject matter relating to personal or family competence was by far the most important area--59 percent of all learning projects undertaken by young mothers were in this category; the next largest percentage, 28 percent, was in the area of self-fulfillment. Together, these two categories accounted for 87 percent of all the reported learning projects. Learning projects relating to vocational and also to social and civic competence had relatively minor positions in the overall pattern, accounting for 6 and 7 percent respectively. An analysis of subject matter revealed that the major emphasis in learning projects undertaken by young mothers was on the practical rather than the academic, on the applied rather than the theoretical, and on skills rather than knowledge.

Major planners for learning projects

The learning projects were also analyzed to discover who was principally responsible for the planning of projects. Learning projects

were classified in one of four planner categories--self, group, individual, or material resource. Two-thirds of all projects were self-planned, i.e., the learner herself assumed primary responsibility for planning not only the why, but also the what and how to learn, when to learn, and where to learn. Ninety-six percent of the study sample had conducted self-planned projects. The second most prevalent planner category was group-planned, which accounted for 16 percent of the learning projects; 60 percent of the interviewees had participated in at least one project in this category. Projects planned by an individual other than the learner accounted for 13 percent of the total learning projects with 54 percent of the study sample using this type of planner for at least one project. Projects planned by a material resource (i.e., programmed learning, tape recordings, television series) accounted for only 5 percent of all learning projects, but this category was used by 31 percent of the sample.

Primary subject matter resources

While there was considerable variety in the primary subject matter resources used for learning projects, individuals (41 percent) and printed materials (31 percent) were listed as the most helpful single resource in over 70 percent of the learning projects. A group or group instructor was named the primary resource in 14 percent of the learning projects; media (television, recordings, exhibits), 5 percent; own experience or observing, 7 percent. In 7 percent of the

learning projects, the interviewee indicated there were two major resources and she could not determine if one was of more importance than the other.

Self-planned learning

As presented earlier in this chapter, 66 percent of all learning projects were self-planned. When tabulated by types of subject matter studied, self-planned learning projects accounted for 80 percent of the total projects in each of two areas--personal and family competence, and social and civic competence. Self-planned learning occurred less frequently in the occupational (33 percent) and self-fulfillment (39 percent) subject matter areas.

The total amount of time spent by the study sample in self-planned projects (68 percent) was very similar to the percentage of learning projects in this category (66 percent). The average length of self-planned learning projects was 45 hours as compared with an average length of 43 hours for all projects.

Interviewees reported being very satisfied with 74 percent of the self-planned projects undertaken. However, they still indicated a need for additional help in 36 percent (n=65). In 60 self-planned projects, the help needed was in the area of obtaining resources or assistance; additional help in the planning phase was mentioned only four times. The findings suggest that the deciding and planning phase of the learning project was quickly passed over; the evidence suggests that there

adults were uninformed about decision-making processes that could facilitate learning efforts.

For slightly more than 40 percent of the self-planned projects, the reasons cited as to why the learner decided to plan the project herself rather than using an "outside" planner were that the learner was either not aware of any other planner to use for the project or felt the project was of such a personal nature that self-planning was the only way to learn it.

Transportation facilities

Most young mothers (94 percent) had transportation available in the daytime if use of the family car was important enough to make the effort to drive their husbands to work; this percentage increased to 9[illegible] percent for evening use of the family car. Bus transportation was available to at least one-half of the subjects, and was used by 10 percent.

Membership in organizations

Membership in organizations was not an important part of the life-style of mothers who were studied. Seventy-five percent of the study [illegible] reported they did not belong to any organization during the past year. Of the 25 percent who did report membership in an organization, 1[illegible] percent belonged to only one organization and 4 percent belonged to two. The 31 organizational memberships reported were held by

Group 2 mothers, except for the two memberships held by one mother in Group 1.

Utilization of information sources

An average of three and one-half hours a day was spent viewing television, although the time spent ranged from one to eight hours. Subjects were asked which local station they watched most frequently. About one-third indicated Station A (CBS affiliate); slightly less than one-third mentioned Station B (NBC affilitate); the other third said they watched no one particular station most frequently. Station C (ABC affiliate) was mentioned by only 2 percent, and no one named the educational television station. While 94 percent of the households received the educational channel, only 50 percent watched it occasionally, 15 percent watched it frequently, and 35 percent never watched it.

The average hours of radio listening a day reported was three but the range was from zero to fifteen hours. Two of the eight AM stations were clearly the ones listened to most frequently. Station A, listed by 39 percent, is an ABC affiliate but emphasizes localized newscasts and has a consistent format of regularly scheduled segments of information. Station B, named by 25 percent, is a CBS affiliate; its programming is not as localized as Station A, but its music is similar and is programed for the young homemaker. One of the nine FM stations was named by 45 percent of the study sample as the FM station listened to most frequently. This is a full-stereo station with a

format of "beautiful music" segments. Fifty percent of the study sample either could not name the FM station they listened to most frequently or else the station was outside the local area.

The daily evening newspaper has the most potential for reaching young mothers since 73 percent read this newspaper as compared with 30 percent who read the morning newspaper. Weeklies published by various villages were read by 19 percent. A local weekly "throw-away" was read by 69 percent.

Ninety-two percent of the study sample read at least one magazine on a regular basis--almost every issue. The average was three magazines; the range was from zero to eleven magazines. Women's and home magazines were the most frequently read, accounting for 73 percent of the total number of magazines read.

The young mothers had a limited knowledge of the learning resources available from adult education institutions in the metropolitan area. They select [illegible] institutions with the exception of television, business and industry, and religious institutions. The percentages of the subjects who used these three institutions as resources were 42, 39, and 19 percent respectively. Also, the five institutions named most often as potential information sources--libraries, public schools, [illegible], colleges and universities, and Cooperative Extension--were different from those that ranked highest in use.

Obstacles to learning

The three most frequently mentioned reasons given as obstacles to learning were limited time and energy, limited money, and priority of family obligations. A closely related reason was the mothers' difficulty in locating trustworthy baby-sitters. These four reasons, all related to their current stage in the family life cycle, accounted for 65 percent (n=75) of the 116 mentions.

Twenty-one percent of the study sample specified reasons why they never got started on learning projects--motivation, fear of failure, and practicality of the learning. Three other categories of reasons were related to obstacles once a learning project was underway--learning beyond the capability of learner, changing interest, and limited learning resources.

Implications for Theory

The present study has implications for adult learning theory and self-planned learning theory in at least two ways. First, the study generated information about each area. It contributed to the general theory pertaining to adult participation in learning activities. Second, it clarified several concepts which adult educations can use in theory-building.

Information

This and related studies have added to the growing knowledge of participation from the point of view of the learner himself. Although the degree of participation varies, almost every adult undertakes learning activities in any given year. Studies have shown that the extent of adult learning effort is extensive and that much of it occurs outside adult education institutions.

The adult learner is extensively involved in planning his learning projects. Self-planned learning accounts for approximately two-thirds of the total learning efforts of adults. Theorists interested in self-planned learning need to consider (1) uniqueness and individuality of learning goals, (2) individual differences in planning ability and style, and (3) necessity of assistance during the self-planned learning process--one learner with many teachers rather than one teacher with many learners. Any theory about self-planned learning needs to incorporate and clarify the nature and extent of assistance needed by adult learners for self-planned learning activities. The issue is: what are the criteria for judging the amount and kinds of assistance needed since it will vary depending on the capacity of the learner?

The finding that most learning activities in this study were initiated for practical reasons--to acquire knowledge and skill related to one's job, home, family, sport, or hobby--suggests that theory about why adults learn will needs to incorporate the goal-learning orienta-

tion of adults. However, this raises the age-old question of what we do in the domain of civic and liberal adult education?

Data from this study adds to the increasing evidence that learning for academic credit and certification forms only a small portion of all adult learning. Since certification and credit are considered to be powerful outcomes and motivation of participation in formal education, the question is what applicability do certification and credit have for adult education?

Concepts

The concept of self-planned learning has been underemphasized in adult education theory and practice. The concepts of participation, learning orientation, self-planned learning, and adult learning were clarified further in the present study. The learning project concept was changed to include projects shorter than the seven-hour limit set by Tough. Concepts that were operationalized for this study were: primary subject matter resource, obstacles to learning, and degree of satisfaction. The concept of self-planned learning was broadened to include knowledge about the amount of additional help needed and reasons why the learner chose to plan the learning project herself.

Implications for Institutional Policy

Elementary and Secondary Education

All but three subjects in this study had completed high school, yet [illegible] the concept of lifelong learning. Many people queried

during this research believed that adult learning was something that was done in an institutional setting, in a formally-organized course or program. The typical perception of interviewees at the beginning of the interview was that they had not done any learning at all during the past year, and that any learning they had done was unimportant or of low quality. A frequent side effect of the interview was a heightened awareness in the participants of their own learning efforts and of the fact that noninstitutional environments and resources can contribute substantially to a person's continuous learning.

Subjects did plan their learning activities; they reported being very satisfied with 76 percent of the learning projects undertaken. Yet the deciding and planning phase of the learning project was quickly passed over. They lacked criteria for determining the adequacy, validity, and sufficiency of information. Their evaluation skills seemed simplistic. Subjects seemed to lack knowledge about community resources and how to use them.

A major role of the formal educational system should be to develop a favorable attitude towards lifelong learning and to produce learners who are competent to initiate and direct their own learning. Involved in the educational curriculum should be learning experiences which provide the learner with skills in goal setting, in planning how to go about learning, in where to get help or advice, and in evaluating.

Adult Education

One very practical implication from this study is the potential use of the Tough instrument as an effective planning tool for analyzing interests of adults. Adult educators could gain considerable insight into client interests and learning styles by interviewing representative adults of a target audience as to their learning activities during the past year. This might prove to be a more effective method for determining the educational interests of new audiences than use of planning committees which attempt to involve representatives of the target audience in decision-making processes. The interview technique would provide the adult educator with a picture of the what and why, the how, when, and where--the preferred learning styles.

One of the most important implications for professional adult educators stems from the increasing evidence that adults plan a great deal of learning for themselves. Learners are doing this themselves without any assistance or intervention from professional adult educators. It now seems that adult educators should be concerned about both the learning process and content of the learning from a new viewpoint--that of the self-directed learner. What should be the role of adult educators in assisting adults to increase their awareness of the potential of teaching themselves? It is apparent that one of the primary aims of adult education should be to help adults understand the process of and develop their competencies in self-planned learning. This can be done

by assisting adults with acquiring skills in determining educational interests and needs, in selecting and organizing learning experiences, and in evaluating.

Research experience from this study indicates that an adult's learning project is a specific, personal, and individualized effort. This is another reason why the role of institutional adult education, particularly as it relates to noncredit continuing education, should strive to facilitate the self-planned learning efforts of adults. The need of reliable subject matter resources for self-planned learning projects challenges the adult educator to increase the diversification in "packaging" subject matter (e.g., tapes, cassettes, single topic newsletter series, television) for individual learning projects. These need to be available for use in the home. Individualized instruction within group learning activities needs to be increased also.

The lack of knowledge that subjects had of adult education institutions indicates a need for additional program promotion and for improving the referral process among adult education agencies. These important needs could be met through community coordination of adult education programs. Such coordination should include: (1) centralized information service that goes beyond the listing of [illegible] material resources to include facilitators, tutors, and [illegible] in a specific topic, (2) coordinated promotion, (3) coordinated program planning on a community level, and (4) [illegible] to provide for quality control and program evaluation.

The effect of the interview on the heightened awareness in the interviewee of her own learning efforts provides a natural counseling technique to uncover learning interests--what she would have liked to learn and what obstacles prevented this.

Group-planned learning activities accounted for only 10 to 20 percent of the total learning efforts of adults. Learners perceived that group learning did not fulfill personal goals; this perception probably was an accurate description of the way it is. Current education models which invite clients to a place where many of her planning functions are performed for her must change. Adult educators cannot continue to believe that they alone know what is best for the prospective learner. The biggest challenge for adult educators is to accept this evidence and to take positive steps to obtain information about specific learners' interests and goals in group-learning situations. For group-learning programs which extend over a given time period, it is much easier to make sure that group objectives are compatible with individual objectives. It is much more difficult to accomplish this for one-shot programs which involve large numbers of people. Here, it may be important to be clear on objectives and then build the objectives into promotion so prospective audiences can self-select. There is a need to explore new techniques for building learner goals into group-planned learning activities.

Most of the planning for the future carried out by adult education institutions is [illegible] long-range goals. It treats the future in much the

same way as the present. Some institutions have been engaged in what is commonly referred to as "long-range program planning"--planning four to five years in the future; however, the future is conceived no differently than the present except for focusing on some economic and demographic variables. There is need for comprehensive planning for the future that attempts to relate noneducational factors in that future to educational policy-making and planning in the present.

Questions about Alternative Policy Goals and Assumptions for Adult Education

The present study demonstrated a high incidence of self-planned learning in the total learning efforts of young mothers. This poses serious policy questions for adult education. Self-planned learning should not be beyond the range and responsibility of adult education. There should be some kind of intervention. The major policy questions then are what are the grounds for intervention and what resources would be available for intervention?

Persons engaged in self-planned learning need and want help with their learning. It should be an interest of society to make self-planned learning more efficient and more effective. It is economically impossible to develop institutional adult education programs for everyone in need of help. Nor will everyone want to learn in an institutional setting.

Can we rely on interest-based programming to solve social issues and problems over a period of time? Based on data from this study, one must seriously consider whether civic responsibility should be a main concern to society since it was an area of low priority and least satisfaction. Another area of concern to society should be parent education. The typical mother in this study spent twenty-four hours during the past year in a self-planned learning activity related to child rearing. An analysis of the content of these projects and observations made during interviews suggest a general lack of information, and use of unreliable sources of information on child rearing. It should be in the interest of society that parents have available to them the most reliable, accurate knowledge and skills in respect to child rearing.

The little time spent in the planning phase of learning projects indicates a need for assistance in developing skills and competencies in planning, in knowledge of resources, and in evaluation. The role of adult educators should be expanded to include not only that of "presenter of subject matter" but also to include that of "facilitator of learning." If that role does broaden, what changes would be required in competencies adult educators need and in the criteria used to evaluate adult education institutions?

Young mothers expressed concern about the difficulty in finding baby-sitters they could trust. How could this problem be solved? For example, there are at least three possible ways (or some combination):

(1) training paraprofessionals who could go into the home--how would this be financed? (2) inexpensive daycare centers where mothers could leave children for a few hours or for a whole day; (3) taking learning resources into the home--videotape, cassettes, cable television. The policy analysis of the tradeoffs among these kinds of alternatives has yet to be undertaken.

If there were to be intervention in self-planned learning, what resources would be available? One possibility could be the formal adult education institutions, who have so far failed to reach young mothers. The leaders in these institutions need to ask themselves whether they do or should care about this audience and why. If they do care, what are they going to do about it? A second potential resource could be other institutions not considered primary adult education institutions but which may have an educative role--business and industry, or television are examples of two that were high in use but low in recognition as a resource. A third resource is all those sources not yet operationalized--information networks, or mass communication devices such as cable television or cassettes.

Who will decide how resources should be organized and made available? Is federal support possible for more packaging of timely and relevant subject matter? Is there a way of dividing up subject matter so different institutions have responsibility for specific areas? Who will decide what is the best way to accomplish this?

How will local communities form the coordinating mechanism needed to provide the necessary counseling, resources, and referrals? Should the federal government establish a new coordinating institution? Should there be federal intervention to provide incentive for institutions to change? What effect would such changes have on current practices, i.e., how would "counting" be used as a means of evaluation to determine future funding in a resource-facilitator program? From these questions it is evident that there is a great deal more analysis which has to be done.

Recommendations for Further Research

This and similar studies have added to the growing knowledge of participation research which focuses on the individual learner. They have developed the concept of self-planned learning. They have also shown that the extent of learning effort is extensive. There is a need for future studies to be directed to additional areas of self-planned learning. These studies should focus on the major questions and issues rather than on questions whether the extent of learning activity reported is a conservative estimate or whether learning projects extend over a two, three, or longer period of years.

Instead of focusing only on the difference in degree of participation between various groups, there also needs to be a major focus on questions related to differences within groups. Why is it that some adults conduct a large number of deliberate learning projects, and

spend hundreds of hours doing so? Why is it that others make so little effort to learn? This was the first study of adults engaged in self-planned learning which attempted to determine the extent of association between personal and socioeconomic characteristics and the measures of learning participation--number of learning projects and total estimated time spent. Further studies are needed using larger samples to test the validity of the tentative conclusions.

The current study provides tentative answers to a number of questions about the learning style of mothers with young children between the ages of nine and sixty-four months. In this sample, all mothers were of the white race and all but three subjects had a minimum of twelve years of school. Similar studies with young mothers in minority groups and with less than a high school education are needed to determine whether the findings related to self-planned learning also hold for this group, and whether the obstacles to learning are similar.

A limitation of this study was its preoccupation with quantity of learning activity. The study measured the extent of learning effort rather than the extent of changes in knowledge, skill, or attitudes of the learners. A research study which measures behavioral change should be undertaken. The study might be in terms of how much was learned or how important the behavioral changes were to the learner or to others. Comparisons could then be made as to the extent of behavioral change resulting from learning projects which were self-planned, group-planned, individual-planned, or material resource-planned.

Why is it that group learning activities did not play a more important role in the total learning efforts? Why is it that material resource-planned projects played such a minor role? Why is it that the majority of the planners in individually-planned projects were friends, neighbors, or relatives, not professionals? What are the main difficulties these amateur planners encounter in their teaching role? What help would they find most useful in improving their effectiveness? Answers are needed to all of these questions.

This study has made a preliminary investigation into some of the obstacles which block learning activities. Further research is needed to determine whether the reasons given as obstacles when asked one open-ended question are true obstacles or simply excuses.

This study, in addition to several others, has added to the knowledge of self-planned learning. Since it seems to be such an extensive activity, further research is needed on the competencies required for self-planned learning.

More research is also needed on resources. Why is it that learners rely to such a large degree on intimates (friends, neighbors, relatives) and printed materials as resources? Why is it that some subjects relied consistently on the same resource throughout most of their learning projects? Why is it that adult education institutions are not used as resources to any large extent?

This study has raised as many questions as it has answered. Contributions of the study have been in specific areas of adult learning

conducted by a specific population. It is left for future researchers to explore other areas and other populations.

Concluding Note

The growing body of knowledge regarding self-planned learning presents a challenge to the field of education. Educators can no longer subscribe to the dogma that self-planned learning is beyond the range and responsibility of its institutions, in the belief it is an individual activity and affords no opportunity for the adult educator to exert influence on the learning process. Persons engaged in self-planned learning need and want help with their learning.

What are the ways in which adult educators and their institutions can come to understand the challenge of self-directed learners? It will require acceptance of self-planned learning as a viable part of adult education. It will require the assistance of the elementary and secondary school system, more effective planning, and new supportive policies. If adult educators understand the challenge, will they meet it?

APPENDIX A

SAMPLE OF LETTER SENT TO SUBJECTS

April 1973

xxxxxxxx
xxxxxxxx
xxxxxxxx

Dear Mrs. xxxxx:

I would like to ask your help in a sur y I'm conducting to help me better understand the needs and interests of mothers such as yourself.

In case you're wondering who I am or what I represent, I might just say that I'm a graduate student at Syracuse University this year. I've worked in Onondaga County for the past nine years and have always been especially interested in mothers who have young children. It just seemed right to build my survey around this interest and actually get out to talk with some of you individually.

Your name has been one of the fifty selected to represent mothers with preschool children. I'm hoping it will be possible for you to find time in your busy schedule to talk with me.

I will be calling you to answer any questions you might have and to set up a convenient time for an interview. The interview may take up to two hours. As a small return for your time, you will receive $5. You may also wish to hire a babysitter to avoid interruptions during the interview. I am prepared to reimburse you $2 for this cost.

I'll be in touch with you within the week to arrange a convenient time to visit with you.

Sincerely,

PATRICIA M. COOLICAN
300 Audubon Pkwy. Apt. 10
Syracuse, N.Y. 13224

APPENDIX B

INTERVIEW SCHEDULE AND PROBE SHEETS

LEARNING PROJECT DATA SHEET

DEMOGRAPHIC QUESTIONNAIRE

SAMPLE OF INDEX CARD

INTERVIEW SCHEDULE*

INTRODUCTION: Be sure to establish a relaxed, trusting atmosphere before beginning the interview. It is especially important for the interviewee to understand that (1) you are indeed conducting a study and are not a salesman in disguise; (2) information you are requesting is not personal in nature; (3) participants will not be identified by name.

Explain purpose of the study by saying something like...I'm interested in talking with mothers like yourself who have preschool children, about the things you've tried to learn about in the last year.

Most interviewees panic when they hear the word "learn" as they associate it with schooling. Say something like... When I say "learn" I don't mean learning the sorts of things that people learn in school. It can be any subject--you could have learned it in any way. Anything at all can be included, regardless of whether it was big or little, easy or hard, serious or fun. I've only set up two guidelines to help me decide whether or not I include things you mention:

a. First guideline is that I'll only count the things you've learned in the last 12 months...so try to think of things you've learned since last _____.

b. The second guideline is that I'll only write down the learning projects where you made any sort of deliberate effort to learn something or how to do something. All of us learn things as a result of such things as casual conversations, television viewing, or recreational reading. This is an important kind of learning too but I did have to set some limits. This is why I decided to count only those things that you made a deliberate effort to learn about.

1. LIST LEARNING PROJECTS

   a. Explain that you will write down the learning projects as they recall them--then you have a few questions to ask about each one.

   b. Point out that it usually takes a person 15-20 minutes to think of learning projects.

   c. Probes

      (1) Chronological probe: Suggest that they think of highlights in their life during past year which may help them recall learning projects...moving, new baby, going back to work, etc.

*Adapted from interview schedule used by Allen Tough.

(2) Category probe (Sheet #1): We find that many adults forget some of their learning projects. This sheet lists some different things that people learn. I don't expect that you will have learned something in each category...it's just to help jog your memory.

Note: If interviewee uses something from list, try to get her to put it in her own words.

(3) Method Probe (Sheet #2): I want to get as complete a list as possible, because we think that people make far more attempts to learn than anyone realizes.

On this sheet, I've listed some different ways of learning which may help you think of some additional learning projects.

(4) Probe Ideas:

(a) Whenever interviewee mentions some activity or area of her life that you think might have produced other learning projects, ask her about this possibility.

(b) If interviewee has omitted a category, probe a little, for example: If she omits anything in area of current events, you might ask... When you read newspapers and magazines, do you try to gain and retain information on current events, politics, or public affairs?

(c) Don't interrupt person's list of learning projects in order to ask criterion questions unless it is clear that the person is far off the track or you are not sure a project qualifies.

(d) Try to be precise about just what the person was trying to learn...use 10-15 words to describe learning project, not just specific title.

d. OK, that gives us a fairly complete list. If you think of any other projects while we are talking, be sure to mention them.

Now I would like to ask you some questions about each of the learning projects you've mentioned. The questions are the same for each, so after we do the first one, it will move along quite rapidly.

Note: Shuffle the Learning Project Data Sheets, putting the more concrete ones that may be easiest to figure learning time first. Put ones you question at the end...by the time you get to them, interviewee herself will recognize whether or not these are deliberate learning projects.

2. TIME

a. The first question I'll be asking about each one is the number of hours you've spent on this project. Let's start with (first learning project)... You mentioned _____, _____, _____(list of episodes she mentioned earlier).

Was there anything else you did to learn _____?

Record learning time for each episode.

Note: If doubtful whether activities listed are learning episodes, this is where you check criteria for (1) deliberate learning and (2) retention for two days.

You might ask... During this activity, was your main purpose to learn _____? During this activity, how long did you want to remember what you were learning?

b. Deciding and Traveling Time: We've been estimating the time you spent learning how to _____. There are two other kinds of time that I'd like to get an estimate for... Deciding and Traveling.

This sheet explains what might be included in these kinds of time. GIVE INTERVIEWEE SHEET #3. When she has read it, record time for Deciding and Traveling.

3. DAY-TO-DAY PLANNER

Another question I'd like to ask about is who or what planned your day-to-day learning. That is, who or what made the decisions about your learning.

I've come up with four types of planners: (1) group; (2) individual; (3) material resource; (4) self-planned. GIVE INTERVIEWEE SHEET #4. When she has read it through, be sure she understands each type of planner, then ask who or what was the major planner in this learning project. If project contained several episodes, interviewee may need to recall the planner for each episode in order to decide what planner was primarily (51%) responsible for the learning project.

Note: In most learning projects there is clearly a single planner. The overall planner may be clearly identified, even though the learning project included at least one episode planned by a group, another by a book, and a few planned by the learner. If no one planner accounted for the majority of the planning, use the residual category of mixed planning.

Record the following additional information for each category of planner:

(a) Group: record makeup of group--(1) group with instructor or leader or speaker assigned to that group; (2) informal interest group self-formed.

(b) Individual: record (1) relationship to learner--brother, sister, husband, friend, neighbor, co-worker, librarian, store clerk, teacher, etc.; (2) was planner expert in this area; (3) was he paid to assist with project.

(c) Material resource: record medium--examples might be set of recordings, series of TV programs, set of programmed instruction materials, workbook or other printed materials, or a language lab.

(d) Self-planned: learner himself retains major responsibility for the day-to-day planning and decision-making.

4. SUBJECT-MATTER RESOURCE

Ask who or what provided most of the subject matter information for this learning project.

5. CREDIT or NONCREDIT (interpret as "mostly credit" or "mostly non-credit")

The interviewer can usually determine the answer to this question for a majority of the learning projects. Ask this question only when you need to determine the answer, using these definitions for credit:

(a) Academic credit--toward a high school diploma, a certificate from a business school, or a college degree.

(b) Certification--passing a test or examination, toward some license or driving test, or toward some requirement or examination related to a job.

6. PRESENT STATUS OF LEARNING PROJECT

Which one of these four answers best describes this particular learning effort at the present time?

(a) Completed--met my goal.

(b) Definitely active--continuing learning effort right now, and spending about as much time as ever at it.

(c) Inactive--have set it aside for a while or am spending much less time at it now than before.

(d) Dropped before completing, and I don't plan to continue.

7. DEGREE OF SATISFACTION WITH LEARNING PROJECT

Please think for a moment about how satisfied you are with your learning project. Would you say that all together you are

(a) Very satisfied.

(b) Not very satisfied.

(c) Halfway between A and B.

8. ADDITIONAL QUESTIONS FOR SELF-PLANNED LEARNING PROJECTS ONLY

(a) Would you have liked more help in your self-planned projects? If answer is YES, ask... At what point(s) would you have liked more help?

NOTE: Get interviewee to use her own words, then categorize later in terms of tasks.

(b) Why did you decide to plan this learning project yourself rather than using an "outside" planner?

9. REPEAT QUESTIONS 2-8 FOR EACH LEARNING PROJECT LISTED BY INTERVIEWEE

10. DEMOGRAPHIC QUESTIONNAIRE

The last three questions on the demographic questionnaire relate to future learning in the next year and obstacles to learning:

(a) What learning would you like to undertake in the next 12 months that is related to what you're learning now?

(b) What NEW learning projects would you like to undertake in the next 12 months?

(c) All of us have things we want to learn but for one reason or another we don't always do it...we start something but don't finish it, or perhaps we don't even begin. What are some of the obstacles you've had?

Sheet #1

PEOPLE LEARN THINGS FOR . . . .

Occupational, Vocational, and Professional Competence

Includes: Basic and literacy education
High school equivalency - regular school subjects
Trade, business or vocational subjects such as: typing or shorthand, practical nursing, data processing, etc.
New worker's preparation for entry into labor market
Any on-the-job training
Retraining for a shift in occupation

Personal Development

Includes: personality development
public speaking, speed reading, etc.
physical fitness
anything related to mental and physical health
driving lessons

Family Competence

Includes: Role as parent, wife, homemaker such as infant or child care, family planning, family relations, consumer education, interior decorating, money management, nutrition, housekeeping, home repairs, gardening

Civic Responsibility

Includes: citizenship or Americanization
voting and politics
current events
community government
civil defense
pollution and ecology
international affairs
community development

Self-fulfillment

Includes: all kinds of liberal education
arts and crafts
hobbies
recreation
music, arts, dance, theater
religion, ethics, or moral behavior

Sheet #2

Can you recall any times you tried to learn something by . . .

- reading a book, pamphlet, encyclopedia, newspaper or magazine
- watching TV programs or news, listening to radio programs, or going to a theatre
- asking a specialist or expert such as a doctor, lawyer, counselor, private teacher, or a financial or tax advisor
- attending a conference, discussion group, a retreat or weekend meeting, a workshop, or other group meeting
- asking questions of your relatives, neighbors, or friends
- enrolling in a correspondence or TV course, or through tape recordings or phonograph records
- taking private lessons

Have you learned in a . . .

- church or synagogue
- college, university, or school
- community organization
- company or factory or office
- in a government program
- in an exhibition, museum, library or art gallery

Sheet #3

1. Deciding and Planning

Perhaps you spent some time deciding

- what you wanted to learn
- how you were going to go about the learning
- where to get help or advice
- evaluating your progress . . . such as whether or not to proceed with the activity, deciding to take a different direction, or that you've accomplished your purpose

2. Traveling and Arranging

Some of your time might have been spent

- traveling to a meeting or library, finding the right book or person
- arranging appropriate conditions for learning
- skimming material in order to find relevant items for a learning episode

3. Learning

During some of the time, your main purpose was to gain certain knowledge, skill, or understanding.

That is, you spent time reading, listening, observing, discussing, experimenting, or learning in some other way--and your motivation to gain and retain certain knowledge and skill was stronger than all your other motives put together during that time.

Sheet #4

Who made the detailed day-to-day decisions about what you should learn, what methods you should employ, what materials or resources to use in each learning episode?

1. Group-planned Learning

   In some learning projects, you may decide to attend a group and let the group (or its leader or instructor) decide what and how you learn during each session. A group may be of any size, with a minimum of five persons.

   Examples might be lectures, workshops, study groups, small informal groups, or conferences.

2. One-to-One Learning

   In some learning projects, the planning and deciding of what to learn and in what order is handled by one person, who helps the learner in a one-to-one situation. That is, there is one helper (or instructor, teacher, expert, or friend) and there is one learner. These two persons interact usually face-to-face, although it could be by telephone or by correspondence.

   Even if 2-4 learners were receiving individualized attention from one other person at the same time, it would be included here.

3. Material Resource Learning

   In these learning projects, the major part of the detailed direction on what to learn and what to do at each session resides in some material resource . . . a programmed instruction book, a set of tape recordings, or a series of TV programs are examples. The learner follows the programs or materials and they tell him what to do next.

4. Self-planned Learning

   In other learning projects, the learner himself retains the major responsibility for the day-to-day planning and decision-making. He may get advice from various people and use a variety of materials and resources, but he retains the responsibility for deciding what activities to try next, what to read, and what knowledge and skill should be next in the sequence. Instead of turning the job of planning over to someone else, he makes the day-to-day decisions himself.

LEARNING PROJECT DATA SHEET

Interview number ____ 1-2 __ __

Card #____ 3-4 __ __

Card in series ____
(#1 up to total number projects) 5-6 __ __

Total Number Learning Projects
Reported ____ 7-8 __ __

1. Desired Knowledge or Skill

_____

_____

__0. None 9 __

__1. Occupational, Vocational

__2. Personal or Family

__3. Social and Civic

__4. Self-fulfillment

__5. Other

2. Episodes and Times

__ _____

__ _____

__ _____

__ _____

__ _____

__ _____

__ _____

__ _____

__ _____

Time #1: Deciding ____ 12-13 __ __

Time #2: Traveling ____ 14-15 __ __

Time #3: Learning ____ 16-17-18 __ __ __

TOTAL ____ 19-20-21 __ __ __

Interview number ____

3. Day-to-Day Planner

___Group: ___Instructor
___Self-formed group
___Individual:
Relationship_____
Expert: __Yes __No
___Material Resource
Medium_____
___Learner
___Mixed

__1. Group: leader
__2. Group: self-formed
__3. Intimate, nonexpert
__4. Intimate, expert also
__5. Paid expert
__6. Material Resource
__7. Self
__8. Mixed

/22 ___

4. Subject-matter Resource

_____

__1. Group or group instructor
__2. Group: self-formed
__3. Intimate, nonexpert
__4. Intimate, also expert
__5. Paid expert
__6. Books and pamphlets
__7. Magazines
__8. Newspaper
__9. Programmed materials
__10. TV and Radio
__11. Film
__12. Recordings
__13. Displays and exhibits
__14. Other_____
__15. Mixed
__16. Couldn't determine

23-24 ___ ___

5. Credit: __1. Toward academic degree
__2. Toward certification
__3. Noncredit

25 ___

6. Present status: __1. Completed
__2. Active
__3. Inactive
__4. Dropped before completing

26 ___

Interview number ____

7. Degree of Satisfaction: __1. Very satisfied
__2. Not very satisfied
__3. Halfway between

27 ___

ASK QUESTIONS #8 AND #9 FOR SELF-PLANNED PROJECTS ONLY

8. Additional Help: __0. No
__1. Yes
__8. Not applicable (not self-planned)

28 ___

What kinds of help?

___ _____

___ _____

___ _____

___ _____

Categorize: 1. Setting goal____ 29 ___
2. Deciding on activities____ 30 ___
3. Obtaining resources or assistance____ 31 ___
4. Deciding when to learn or for how long__ 32 ___
5. Expenses____ 33 ___
6. Evaluating progress____ 34 ___
7. Other____ 35 ___
8. Not applicable (not self-planned; no help needed) 36 ___

9. Why did you decide to plan this learning project yourself rather than use an "outside" planner? 37-38 ___ ___

_____

_____

_____

_____

_____

_____

_____

DEMOGRAPHIC DATA

Interview number ____ 1-2 ___

Card #1 3-4 0 1

Time interview started ___a.m. ___p.m. ended ___a.m. ___p.m.

Length of interview (in minutes) ____ 5-6-7 ___

1. How many children do you have? ____ 8 ___

2. What is the birthday of each child (oldest first):

1. _____ Age in months ____ 9-10 ___
2. _____ Age in months ____ 11-12 ___
3. _____ Age in months ____ 13-14 ___
4. _____ Age in months ____ 15-16 ___
5. _____ Age in months ____ 17-18 ___

Sample subgroup: Oldest child ___1. under 30 months 19 ___
___2. 30 months-6 years

3. Age of respondent at last birthday ____ 20-21 ___

4. What was the last grade that you completed in school? 22 ___

_____

___1. More than 16
___2. 16 (college graduate)
___3. 13-15 (partial college)
___4. 12 (high school graduate)
___5. 9-11
___6. 8
___7. 7 or less

5. Do you work regularly for pay either at home or outside? 23 ___

___0. No
___1. Yes

Interview number _____

6. How many hours a week do you work? _____ | 24-25 ___ ___

7. What type of work do you do?

_____ | 26 ___

___1. Higher Executive, Proprietors Large Concerns, Major Professional
___2. Business Manager, Proprietor Medium-Sized Independent Business, and Lesser Professional
___3. Administrative Personnel, Small Independent Business, and Minor Professional
___4. Clerical and Sales Worker, Technician, and Owner of Little Business
___5. Skilled Manual Employee
___6. Machine Operator and Semiskilled Employee
___7. Unskilled Employee
___8. Not applicable (not working)

8. Marital status: | 27 ___

___1. Married
___2. Single
___3. Separated or divorced
___4. Widow

9. How does your husband react to your spending time continuing your learning? | 28 ___

___1. Supportive approval
___2. Indifferent or neutral
___3. Outright opposition
___8. Not applicable (no husband)

Interview number ____

10. What type of work does your husband do?

_____ 29 ___

___0. Doesn't work
___1. Higher Executive, Proprietors Large Concerns, Major Professional
___2. Business Manager, Proprietor Medium-Sized Independent Business, and Lesser Professional
___3. Administrative Personnel, Small Independent Business, and Minor Professional
___4. Clerical and Sales Worker, Technician, and Owner of Little Business
___5. Skilled Manual Employee
___6. Machine Operator and Semiskilled Employee
___7. Unskilled Employee
___8. Not applicable (no husband)

11. What was the last grade that your husband completed in school? _____ (Hollingshead categories) 30 ___

___1. Graduate professional training
___2. Standard college or university graduation
___3. Partial college or vocational beyond high school
___4. High school graduate
___5. Partial high school (10-11)
___6. Junior high school (7-9)
___7. Less than 7 years
___8. Not applicable (no husband)

Calculate social class: (Hollingshead) Occupation ( ) x 7 = Education ( ) x 4 = ____ Index Social Position 31 ___

Scores 11-17, Social Class 1 ___
18-27, Social Class 2 ___
28-43, Social Class 3 ___
44-60, Social Class 4 ___
61-77, Social Class 5 ___

Interview number ____

12. How many hours did your husband spend away from home at work in the last 7 days? (at all jobs, including commuting time as well as actual hours worked) ____ 32 ___

___0. None
___1. Under 40
___2. 40-50
___3. 50-60
___4. 60-70
___5. Over 70
___8. Not applicable (no husband)

13. On this card are listed some general family income brackets. Would you name the number on the card that identifies the general bracket that your family income fell last year--before taxes, that is? 33 ___

___1. Under $5,000
___2. $5,000 - 9,999
___3. $10,000 - 14,999
___4. $15,000 - 19,999
___5. $20,000 - 24,999
___6. $25,000 or over
___9. Don't know, refused to answer

14. How many years have you lived in Onondaga County? 34 ___

___1. Less than 1 year
___2. 1-2 years
___3. 3-5 years
___4. 6-10 years
___5. More than 10 years but not all my life
___6. All my life

15. How long have you lived at your present address? 35 ___

___1. Less than 1 year
___2. 1-2 years
___3. 3-5 years
___4. 6-10 years
___5. More than 10 years but not all my life
___6. All my life

Interview number _____

16. Location of present address (interviewer should be able to determine--ask only if necessary) 36 ___

___1. Farm
___2. Open-country
___3. Village
___4. Built-up area

17. What year did you last attend school full time? _____ 37 ___

___1. Less than 1 year ago
___2. 1-2 years ago
___3. 3-5 years ago
___4. 6-10 years ago
___5. Over 10 years ago

18. What was your general attitude about school?

_____ 38 ___

___1. Enjoyed a great deal
___2. Enjoyed quite a bit
___3. Enjoyed somewhat
___4. Enjoyed not very much
___5. Enjoyed not at all
___9. Don't know

19. Do you have a driver's license? ___0. No
___1. Yes 39 ___

20. Do you have use of a car? DAYTIMES ___0. Never 40 ___
___1. Sometimes
___2. Always
___8. Not applicable

EVENINGS ___0. Never 41 ___
___1. Sometimes
___2. Always
___8. Not applicable

21. Is bus transportation available in your area? ___0. No 42 ___
___1. Yes
___9. Don't know

Interview number ____

22. Do you use it?

43 ___

__0. Never
__1. Sometimes
__2. Often
__8. Not applicable (no bus available)

23. Some women belong to groups or organizations in the community. What organizations did you belong to this past year - let me mention some categories of organizations to jog your memory: (1) religious; (2) fraternal and social; (3) service; (4) civic and political; (5) nationality or patriotic; (6) recreational, sports, and hobby; (7) education; (8) occupational.

Active: Attended at least 50% of meetings and/or held office or served on comm.	Number organizations ___	44-45	___
	Number active in ___	46-47	___
	Number not active in ___	48-49	___
Religious	Total Number ___	50	___
	No. Active ___	51	___
	No. not active ___	52	___
Fraternal and Social	Total Number ___	53	___
	No. Active ___	54	___
	No. not active ___	55	___
Service	Total Number ___	56	___
	No. Active ___	57	___
	No. not active ___	58	___
Civic and Political	Total Number ___	59	___
	No. Active ___	60	___
	No. not active ___	61	___
Nationality or Patriotic	Total Number ___	62	___
	No. Active ___	63	___
	No. not active ___	64	___
Recreational, Sports and Hobby	Total Number ___	65	___
	No. Active ___	66	___
	No. not active ___	67	___
Educational	Total Number ___	68	___
	No. Active ___	69	___
	No. not active ___	70	___
Occupational	Total Number ___	71	___
	No. Active ___	72	___
	No. not active ___	73	___

Interview number ____

24. About how often do you read a daily newspaper? 74 ___

__0. Never
__1. More often than once/day
__2. Almost every day
__3. Almost every other day
__4. Once or twice a week
__5. Sometimes, but less than once/week

25. Would you tell me the names of the newspapers that you read?

DAILY 75 ___
__0. None
__1. Syracuse Post-Standard
__2. Syracuse Herald-Journal
__3. Other _____
__4. Post-Standard and Herald-Journal
__5. Post-Standard and Other
__6. Herald-Journal and Other
__7. Post-Standard, Herald-Journal and Other

SUNDAY 76 ___
__0. None
__1. Syracuse Herald-American
__2. Other _____
__3. Herald-American and Other

WEEKLY 77 ___
__0. None
__1. Local _____
__2. National Observer
__3. Other _____
__4. Local and National Observer
__5. Local and Other
__6. National Observer and Other
__7. Local, National Observer and Other

PENNYSAVER 78 ___
__0. None
__1. Local One _____

Interview number ____ | 1-2 ___ ___

START CARD #2 | 3-4 0 2

26. How many television sets do you have? _____ | 5 ___

27. How many hours a day do you spend watching television? | 6 ___

28. Of the time you watch TV, which local station do you watch most frequently? _____ | 7 ___

__0. Never watch TV
__1. WSYR (channel 3)
__2. WHEN (channel 5)
__3. WNYS (channel 9)
__4. WCNY (channel 24)
__8. Not applicable (no TV)
__9. Don't know (means no one station viewed most frequently)

29. Can you get channel 24 (WCNY) on your television set? | 8 ___

__0. No
__1. Yes
__8. Not applicable (no TV)
__9. Don't know

30. How often do you watch channel 24? | 9 ___

__0. Never
__1. Occasionally
__2. Frequently
__8. Not applicable (no TV or can't receive)

Interview number _____

31. Is your radio AM, FM, or can you get both AM and FM stations? 10 ___

__0. No radio
__1. AM only
__2. FM only
__3. AM-FM

32. How many hours a day do you spend listening to the radio? _____ 11-12 ___ ___

33. Which AM station do you listen to most frequently? ___ 13-14 ___ ___

__0. None (use this category also for station given which is outside Onondaga County)
__1. 570 WSYR
__2. 620 WHEN
__3. 1050 WSEN
__4. 1220 WSOQ
__5. 1260 WNDR
__6. 1390 WFBL
__7. 1490 WOLF
__10. 1540 WPAW
__8. Not applicable (no radio; can't get AM)
__9. Don't know

34. Which FM station do you listen to most frequently? ___ 15-16 ___ ___

__0. None (use this category also for station given outside Onondaga County)
__1. 83.3 WAER
__2. 91.3 WCNY
__3. 92.1 WSEN
__4. 93.1 WDDS
__5. 94.5 WSYR
__6. 100.9 WEZG
__7. 102.9 WMHR
__10. 105.1 WOIV
__11. 107.9 WONO
__8. Not applicable (no radio; can't get FM)
__9. Don't know

Interview number ____

35. Which magazines do you read regularly--that is, almost every issue?

Womens, Fashion and Home	News
___ American Home	___ Time
___ Better Homes and Gardens	___ Newsweek
___ Family Circle	___ U.S. News and World
___ Cosmopolitan	___ Report
___ Good Housekeeping	___ _____
___ House and Garden	___ _____
___ House Beautiful	
___ Ladies Home Journal	Other
___ McCalls	___ Readers Digest
___ Parents	___ (General)
___ Redbook	___ _____
___ Womans Day	___ _____
___ Glamour and Mademoiselle	___ _____
___ _____	___ _____
___ _____	

Number according to category:		
Womens, Fashion or Home___	17	___
News___	18	___
General___	19	___
Sports, Hobbies, Travel___	20	___
Business or Professional___	21	___
Light Fiction___	22	___
Religious, Farm and Membership___	23	___

Breakdown of Womens, Fashion or Home Category

American Home___	24	
Better Homes and Gardens___	25	___
Family Circle___	26	___
Cosmopolitan___	27	___
Good Housekeeping___	28	___
House and Garden___	29	___
House Beautiful___	30	___
Ladies Home Journal___	31	___
McCalls___	32	___
Parents___	33	___
Redbook___	34	___
Womans Day___	35	___
Glamour and Mademoiselle___	36	___
_____ ___	37	___
_____ ___	38	___
_____ ___	39	___
_____ ___	40	___
Miscellaneous___	41	___

Interview number _____

36. Can you tell me what organizations and places in Onondaga County have information for learning available to adults . . . this might include expert advice, printed materials, counseling, or perhaps classes (perception question probe).

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

0. Didn't list or use during last year
1. Listed but didn't use during last year
2. Listed and used during last year
3. Used but didn't list

Type 1:	Public Schools ___	42 ___
	Colleges and Universities ___	43 ___
Type 2:	Business and Vocational ___	44 ___
	Correspondence Schools ___	45 ___
	Cooperative Extension ___	46 ___
Type 3:	Library ___	47 ___
	Museum ___	48 ___
	Health and Welfare ___	49 ___
Type 4:	Business and Industry ___	50 ___
	Government Agencies ___	51 ___
	Television and Radio ___	52 ___
	Religious ___	53 ___
	Voluntary Organizations ___	54 ___
	Professional Societies ___	55 ___

Interview number _____

37. What learning would you like to undertake in the next 12 months that is related to what you're learning now?

_____	_____	
_____	_____	
_____	_____	
_____	_____	
	Occupational, Vocational ___	56 ___
	Personal or Family ___	57 ___
	Social and Civic ___	58 ___
	Self-fulfillment ___	59 ___
	Other ___	60 ___
	TOTAL NUMBER ___	61 ___

38. What NEW learning projects would you like to undertake in the next 12 months?

_____	_____	
_____	_____	
_____	_____	
	Occupational, Vocational ___	62 ___
	Personal or Family ___	63 ___
	Social and Civic ___	64 ___
	Self-fulfillment ___	65 ___
	Other ___	66 ___
	TOTAL NUMBER ___	67 ___

39. Obstacles to Learning (code later)

_____	_____	68 ___
_____	_____	69 ___
_____	_____	70 ___
_____	_____	71 ___
_____	_____	72 ___
_____	_____	73 ___
_____	_____	74 ___
		75 ___
		76 ___
		77 ___
		78 ___
		79 ___

Interview ended _____ a.m. _____ p.m.

Telephone number _____

_____ Group

_____ Interview Number

_____ Sample Number

XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXX

Phone: _____

Confirmed:

___Address ok
___Age oldest child
___Not in school fulltime

Date interview _____
Time _____

Directions:

___No. children:

(Age)	(Name)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

___Initial letter returned
___Couldn't contact
___Moved out of district
___Refused
___ _____

APPENDIX C

THE TWO-FACTOR INDEX OF SOCIAL POSITION

The Two-Factor Index of Social Position

To determine the social position of an individual or of a household, two items are essential: (1) the precise occupational role the head of the household performs in the economy, and (2) the amount of formal schooling he has received. Each of these factors are then scaled according to the following system of scores.

Occupational Scale

1. Higher executives
   Proprietors of large concerns
   Major professionals
2. Business managers
   Proprietors of medium-sized businesses
   Lesser professionals
3. Administrative personnel
   Small independent businesses
   Minor professionals
4. Clerical and sales workers
5. Skilled manual employees
6. Machine operators and semi-skilled employees
7. Unskilled employees

Educational Scale

1. Graduate professional training
2. Standard college or university graduation
3. Partial college training (includes vocational training beyond high school)
4. High school graduate
5. Partial high school (10-11)
6. Junior high school (7-9)
7. Less than 7 years school

Hollingshead does not assign any labels to his five categories of social class. A better understanding is obtained however by knowing the occupational and educational level limits for each category.

	Occupational level range	Educational level range
Social Class 1	1	1 or 2
Social Class 2	1,2,3	1 thru 5
Social Class 3	2,3,4	1 thru 7
Social Class 4	3,4,5,6,7	1 thru 7
Social Class 5	5,6,7	3 thru 7

The factors of occupation and education are combined by weighing the individual scores obtained from the scale positions. The weights for each factor were determined by multiple correlation techniques. The weight for each factor is: occupation, 7; education, 4.

Example: John Smith is a manager of a chain supermarket. He completed high school and one year of business school. His index of social position is computed as follows:

Factor	Scale Score	Factor Weight	Score x Weight
Occupation	3	7	21
Education	3	4	+12
			33=Social Class 3

Range of Computed Scores:		
	Social Class 1	11-17
	Social Class 2	18-27
	Social Class 3	28-43
	Social Class 4	44-60
	Social Class 5	61-77

APPENDIX D

COMPARISON OF DATA FOR ALL LEARNING PROJECTS WITH DATA FOR LEARNING PROJECTS SEVEN HOURS AND LONGER

TABLE 53.--COMPARISON OF DATA FOR ALL LEARNING PROJECTS WITH DATA FOR LEARNING PROJECTS SEVEN HOURS AND LONGER

	Learning Projects	
	All	Seven Hours and Longer
Number learning projects	276	202
Mean	5.8	4.2
Median	5.6	4.4
Range	2-12	1-9
Participation	100%	100%
Current status of projects		
Active	67%	73%
Completed	25%	20%
Inactive	8%	7%
Dropped	0%	0%
Learning for credit		
Credit	1%	2%
Noncredit	99%	98%
Subject matter areas studied		
Vocational	6%	7%
Personal and Family	59%	57%
Social and civic	7%	8%
Self-fulfillment	27%	27%
Primary subject resource		
Intimate, nonexpert	23%	21%
Paid expert	16%	15%
Books	15%	16%
Group or instructor	11%	11%
Magazines	6%	6%
Programmed materials	6%	3%
Newspaper	4%	5%
Television	4%	5%
Self-formed groups	3%	3%
Intimate, also expert	2%	2%
Observation and experience	2%	3%
Exhibits	1%	1%
Mixed	7%	8%

TABLE 53.--Continued

	Learning Projects	
	All	Seven Hours and Longer
Planner type		
Self-planned	66%	67%
Group-planned	16%	16%
One-to-One	13%	11%
Inanimate/material	5%	5%
Total estimated time spent in hours	12002	11714
Mean	250	244
Median	167	160
Range	30-1016	24-1012
Length of learning projects in hours		
By individual: Mean	41	53
Median	32	35
Range	8-138	9-172
By project: Mean	43	58
Median	21	35
Range	1-492	7-492
Length of learning projects in hours by planner		
Self-planned: Mean	45	58
Median	19	34
Range	1-492	7-492
Group-planned: Mean	53	71
Median	33	44
Range	2-275	8-275
One-to-One: Mean	25	37
Median	25	27
Range	1-128	9-128
Material-planned: Mean	46	54
Median	18	30
Range	4-191	10-191

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