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The major learning efforts of participants in adult basic education classes and learning centers

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CHAPTER I. INTRODUCTION

Until recently research in adult education in the area of learning has focused primarily on institutional learning and has neglected the learning efforts of adults outside of educational institutions. The major emphasis has been on characteristics and motivations of adults who have enrolled in formal education programs. The underlying assumption of research has been that enrollment in formal educational programs represented the entire range of adult learning experience. With this assumption the adult's "deliberate effort" to learn in everyday life has been largely ignored.

In the late 1960's, however, the focus of adult education research began to shift from institutional to individual learning. This new emphasis has been on self-teaching, independent study, self-directed learning and autonomous learning. This research has emphasized that important learning can occur outside of educational institutions as well as inside of them and that learning can be planned by either learners or by professionals. However, research findings about self-directed learning have gone largely unnoticed by researchers in adult learning and many educators are still not aware of the possible implications.

Houle (1961) was one of the first adult educators to recommend the need to investigate the individual learning undertaken by adults. He explained that "the decision to focus the present inquiry on the

individual was reinforced by the perplexing fact that no such studies have been previously undertaken, a gap which has been independently noted by other summarizers of literature" (1961:9). Houle (1969), in the Encyclopedia of Educational Research, also explained that for a large group of researchers, "the individual appears to be the proper focus for any study of adult education, for although social factors influence the goals, nature and results of learning, learning must ultimately be measured in the change of the individual who is the one enduring element amidst all the diversity of social change" (1969:54).

A systematic study of noninstitutional learning undertaken by adults was begun by Allen Tough in the early 1960's. He was interested in investigating how learning proceeds in its natural form in everyday life. Tough (1971) asserted that self-teaching occurs when the adult directs his/her own learning and in so doing, uses a variety of assistance and resources from others. Tough (1971) wrote that "almost everyone undertakes at least one or two major learning efforts a year, and some individuals undertake as many as 15 to 20. The median is eight learning projects a year" (1971:1). In the study, Tough asserts that almost two-thirds of the learning projects of adults are self-planned and conducted outside of adult education institutions. Since the original survey by Tough, many researchers have replicated the study with different populations.

Self-directed learning has been considered a primary goal of adult education by many authors (Houle, 1964; Knowles, 1970, 1972;

Tough, 1971; Faure, 1972; Freire, 1973). This concept has been referred to by various names such as: self-planned, independent, autonomous, and autodidactic learning. Although the research in this dissertation is concerned with participants in adult basic education, self-directed learning is an underlying goal of education in general (Dewey, 1944; Thelen, 1960; Moore, 1973; McKeachie, 1963).

Ulin (1975) also reports that the wishes of Congress found in a recent content analysis of Congressional and Administrative documents are such as to encourage the goal of self-directed learning. Specifically, one expectation in educating the adult is that he or she will be allowed "to participate in life-planning and goal setting."

Faure (1972) prepared a report for the International Commission on the Development of Education and noted that educational activities should be focused on the individual learner in order to give him "greater and greater freedom, as he matures, to decide for himself what he wants to learn and how and where he wants to learn it" (1972:220). He also suggests that "the new educational ethos makes the individual the master and creator of his own cultural progress" (1972:209). With this new focus, individuals are motivated to develop their full potential.

Ingalls (1972) argues that developing potential is difficult because many educational environments have been dominated by the teaching of children: "adults tend to come into educational or training programs expecting to be treated like children and prepared

to allow the teacher to take responsibility for their learning" (1972:6). Bell (1975) indicates that "few teachers are trained specifically to teach adults; most are dayschool teachers seeking to earn extra money" (1975:9).

Kratz (1978) indicates that because most teachers of adult basic education students are teachers of children and they do not have training in teaching adult basic education students, they often fulfill only the initial expectation of adult students by assuming responsibility for their learning. Actually they determine what adult basic education students need to learn and prescribe the ways for students to satisfy these learning needs. He further mentions that this kind of instructional practice neglects one of the primary goals of adult education. Then, he refers to Kidd (1975) and suggests that such students' and teachers' expectations may lead to conflicts and tensions within the adult learner and between the learner and the teacher, further limiting the development of each person's potential. That is why Knowles suggests that "providing diagnostic experience in which the learner can assess his present level of competencies . . . is an undeveloped area in adult education" (1970:4). Even if a teacher in adult basic education wants to help the learner in the assessment of his or her needs and encourage a personal responsibility for learning, the teacher has little experience for it.

Another important element which should be considered in adult basic education is the characteristics of the program planning

effort. Only recently have adult educators begun to design programs which are consistent with what Knowles (1970) calls the "theory of andragogy" developed by Knowles in 1970. Newton (1977), in reviewing the major assumption of andragogy (the science of adult instruction) argues that "if we are to meet the challenge of the ever growing adult-student population and guide their mastery of the essential verbal tools for further learning as well as for real life coping, we must understand the adult as a learner" (1977:363).

Kavale and Lindsey (1977) argue that in adult basic education programs, the teaching/learning process becomes an important element in the decision of the students to remain in the program. So, in order to have more effective programs that facilitate meeting the needs of adult basic education students and developing people to their fullest potential the teachers of these students should have knowledge of learning characteristics of the students enrolling in their class.

This study is concerned with understanding the characteristics of one group of adult students, adult basic education students. Several such students were examined to determine their major learning efforts over a twelve month period. The Des Moines Iowa Area Community College adult basic education program produced the population base. It was expected that studying such a group would provide some understanding of the implications for institutions in meeting self-directed learning needs and interests.

Some of the students studied were participants in adult basic

education classes and some were participants in learning centers. Thus, both traditional and nontraditional institutional forms of adult instruction are examined. These students as adult individuals are involved in daily decision making regarding their lives; in the opinion of the author they should, therefore, be given the opportunity to choose what they want to learn, to determine how they want to learn it, and to evaluate whether they have actually learned it. In fact, these elements are an important bases for self-directed learning.

Thus, the main purpose of this study was to describe the major learning efforts of adult basic education students. The learning efforts included self-directed learning as well as other forms. Tough's learning project approach was utilized in the study as the conceptual model and tool for facilitating the exploration of the students' learning activities.

The Problem

A review of literature suggests that adults deliberately conduct learning activities in different ways throughout their lives. There is a body of knowledge which indicates that adults largely pursue learning in a self-directed manner. Also, there is evidence which indicates that adults in their learning efforts seek assistance. If the primary goal of adult education is to design and provide more effective help for adult learners and encourage them to assume responsibility for their learning, then research needs

to be conducted to understand the nature of adult learning in its natural form in daily life.

Knowles (1970) points out that self-directed learning is important in adult education. Therefore, he makes a distinction between education of children (pedagogy) and the education of adults, which he calls "andragogy." One of the assumptions of "andragogy" is that as a person matures, his or her self-concept moves toward that of being an independent, self-directed human being. Because the learner has ability to direct other areas of life, he or she probably brings to the learning experience many skills of self-directed learning. The task of this study is to examine adult basic education students learning efforts by exploring the extent, content, motivation, and strategies of their learning activities over a twelve month period. The general objectives of the study are:

1. To determine the nature and extent of the learning projects pursued over a twelve-month period by a selected sample of adult basic education students.

2. To explore an adult's reasons for choice of a particular planning category (group, one-to-one, self-planned and material resources).

3. To explore relationships among various learning project variables.

4. To provide the participating adult basic education district the results of this study and make recommendations to administrators and adult basic education teachers.

Research Questions

The thesis which this survey addressed includes the following questions which grew out of previous research findings and were refined in conferences with the director of ABE programs and learning centers directors in the Des Moines Area Community school district. The specific questions which will serve as guides for this study are:

1. What obstacles do adult basic students encounter in their learning?

2. How many learning projects are pursued by adult basic education students in the course of a one year period?

3. What is the average amount of time spent on learning projects?

4. What is the content of the various learning projects?

5. Who are the major planners for the learning projects?

6. What is the extent of learning projects undertaken for credit or certification?

7. Which learning projects are most satisfying to the learners?

8. What is the current status of the learning projects at the time of data collection (definitely active, not very active, completed)?

9. What is the adult's primary method used in self-directed learning projects (who or what provided most of the subject matter)?

10. What are the adult's reasons for choosing one of the planning categories (group, one-to-one, self-planned, material resources)?

11. What are the relationships between selected learning project variables and selected demographic variables?

12. What are the relationships between selected learning project variables and other learning project variables?

Significance of the Study

Since adult education is in an early stage of development as a discipline, it is important that adult educators continue to explore new information in order to enrich their domain of knowledge and practice. The significance of this study should be seen from the following perspectives.

1. This study will be undertaken in order to contribute to the knowledge of the adult learning project--deliberate learning efforts--by focusing on students of low educational attainment in the Des Moines Area Community College District (merged area 11), Iowa.

According to Travers (1963) when the history of research on learning in the last century is reviewed, two approaches can be seen. "One approach is based upon the point of view that research on learning is best conducted in schools and in realistic settings where education is actively in progress, the other is represented by those who have sought to study learning phenomena under simplified

conditions in the laboratory" (1963:2). Learning project research suggests another approach to understanding learning, which is the study of "deliberate learning efforts." This new approach emphasizes that important learning can occur outside of educational institutions as well as inside of them and that learning might be planned by the learner or professional. This new approach also suggests that the amount of learning activity engaged in by adults has been underestimated in previous research in adult education. In order to show that adult basic education students are actively involved in deliberate learning efforts, this study attempts to measure learning activities of the population in terms of both self-directed or other forms of learning. If one of the final purposes of adult basic education is to design and provide more effective help for adult learners, then research must be conducted in a manner which describes how learning proceeds in its natural form in daily life, and if adult aducators are to guide the adult basic education students in their mastery of essential verbal tools for continuing learning and for real life coping, the educators must understand the adult as a learner. This study may give adult educators a clearer sense of direction.

2. This study also attempts to reveal the obstacles to learning as perceived by adult basic education students. It is hoped that the results of this study will be utilized by adult basic educational planners in the Des Moines Area Community College District, Iowa, and in other areas to develop possible solutions to

the problems arising from such obstacles.

3. This study also will provide information about how the participants developed self-directed learning activities. When more knowledge is available about learning efforts by adult basic education students--what is learned, how much time is spent in learning, what type of resources are used, and who the major planners for learning activities are--educators hopefully will be able to provide more assistance to adults and accept the role of facilitator in both program planning and the effective selection of learning objectives and subject matter.

Assumptions of the Study

This study is based on several major assumptions:

1. The phenomenon of learning projects as explained by Tough includes an appropriate framework to gather information about the learning efforts of adults.

2. The definition of "learning project" and the selected instrument used in this study are valid.

3. The interview schedule developed and revised by Tough and other researchers (1970) is reliable.

4. Adult basic education students chosen for this study conducted self-planned projects in the past 12 months and can communicate the extent and nature of these projects to the interviewer.

5. The adult basic education students chosen for this study will be willing to be interviewed.

Definition of Terms

The following definitions are introduced to delineate the terms which have been used in the study. A further explanation of these terms will be presented in Chapter II, a review of the related literature.

Learning project

Learning project phenomenon is the basis for studying the deliberate learning efforts of adults of low literacy attainment. Tough (1971) defines the learning project as a series of clearly related episodes adding up to at least seven hours within a consecutive 6-month period of efforts to gain and retain certain fairly clear kinds of knowledge or skills or to produce some change in a person. (The twelve months before the time of the interview is the period in which learning projects are to be examined.)

Learning episode

A learning episode is the activity in which an individual was engaged during a learning project. Learning projects usually consist of several learning episodes. Tough defines the learning episode as "a period of time devoted to a cluster or sequence of similar related activities" (Tough, 1971:7). In this period of time the primary intention of the learner should be to gain certain knowledge and skill and retain it for at least two days.

Learning

In a learning project the individual must make a deliberate attempt to learn. Verner's (1964:32) definition of learning will be used for the purpose of this study: learning is the acquisition of knowledge, attitudes, or skills, and the master of behavior in which facts, ideas, or concepts are made available for individual use.

Knowledge and skills

This term describes the entire range of behavioral changes resulting from experience. These include cognitive, attitudinal and psychomotor change. According to Tough (1971) any positive or desired change in a person includes the ability to gain knowledge, understanding, awareness, comprehension, and beliefs, and to develop the ability to apply, analyze, synthesize, evaluate, and judge, and to develop perceptual and physical skills.

Major planner of the learning projects

Tough describes the planner as "the person or thing responsible for more than half of the detailed day-to-day planning and deciding in a learning project" (1971:77). Tough distinguishes among the following types of planners:

1. Self: Self-planned learning is conducted by the individual in planning and assuming responsibility in daily decisions. Other resources could be used but the individual retains the control of the learning activities from one learning session to the next.

2. Group: The adult attends a group where the group itself or the group's professional leader does the actual planning.

3. Individual: The adult's learning is guided by one person. This person can be an instructor or friend. The learner receives individualized instruction.

4. Nonhuman resources: The source of direction for the adult's learning comes from nonhuman resources such as programmed instruction, a book, or several television programs.

5. Mixed: Where the responsibility for planning does not reside primarily in any one of the four above defined categories. The planning is divided between two or more categories, and less than 51 percent is assigned to each category.

Adult basic education students (ABE students)

The term adult basic education student is used in this study to describe adults who are enrolled in literacy programs for the purpose of becoming more competent in reading, writing, and/or computation, pursuing career goals, developing coping skills and/or obtaining a general education development (G.E.D.) diploma.

Stipended students

Stipended students are adult basic education students directly financed through Welfare Education Programs (WEP), Job Service of Iowa, vocational rehabilitation, military recruiters, the Iowa Training School for Girls and the Veterans Administration, and others.

Organization of the Study

Chapter II provides the theoretical and research background for the present study by reviewing the relevant literature related to self-directed learning.

Chapter III describes the methodology used in the study: sample selection, instrumentation, procedures for gathering the data, and data analysis.

Chapter IV contains the presentation and discussion of the findings.

Chapter V includes a summary, limitations, implications, recommendations for further research and recommendations to administrators and adult basic education teachers.

CHAPTER II. REVIEW OF LITERATURE

Overview

The purpose of this study is to explore the nature and extent of the major learning efforts undertaken by adult basic education students in the selected sample. The literature which has been selected by the investigator is reviewed in two sections: (1) Theoretical viewpoints on self-directed learning and (2) research focused on the individual adult learner.

Theoretical Viewpoints on Self-directed Learning

The notion of self-directed learning is not a recent phenomenon. Tough (1967) and Kulich (1970) describe the emphasis on self-education that has prevailed throughout history. Kulich describes how Socrates talked about the wise as those people who mastered self-control, and those who were self-learned and were not ashamed to learn from anyone around them.

McKeachie (1963) indicates that the purpose of education is to help the student develop the ability to continue learning when he or she finishes formal education. He says that one can acquire such learning through supervised experiences in self-directed learning which he defines as an "experience in which the instructor helps the student learn how to formulate problems, find answers, and evaluate his progress himself" (1963:1145).

Bernstein and Montag (1969) discuss the definition of the

independent learner. They indicate that the "definition of the ideal independent learner stands as a statement of goals towards which the educational enterprise may direct itself" (1969:86). They define independent learner as "one who engages problems which he delineates, and for which he develops and carries out his own plan of attack ending in knowledge gained and tested" (1969:80).

Glaser and Cooley (1973) argue that the schools are not able to predict all the knowledge and skills that people must have before they finish their formal education. They further suggest that "a system of education needs to be developed which teaches students how to learn on their own. Learning to learn must be an important ingredient of any new educational program" (1973:848).

The concept of self-directed learning has received considerable attention in adult education since the 1960's. The writings of Knowles (1970, 1973, 1975) in self-directed learning are considerable. To him, self-directed learning is based on a new "coherent" and "comprehensive" body of theory which is called andragogy. Knowles (1970:37) defines andragogy as the art and science of helping adults (maturing human beings) learn. Knowles has borrowed the andragogical concept from Yugoslavia and parts of Germany. This concept is intended to replace the use of pedagogy in adult education. He is not attempting to distinguish between children and adults as learners. Indeed, what he has explained in his theory is the process of distinguishing between assumptions which have been made about the learner in pedagogical practice in

contrast to andragogical practice. Knowles believes that "the assumption of andragogy applies to children and youth as they mature and that they, too, will come to be taught more and more andragogically" (1973:43).

Knowles (1973) formulated his theory of andragogy on the basis of theory and research which was conducted by Erikson (1950, 1959, 1964); White (1959); Iscoe and Stevenson (1960); Bruner (1961); Getzels and Jackson (1962) and Bower and Hollister (1967). The assumptions which have been made about learners in andragogical practice are as follows: first "as a person grows and matures his self-concept moves from one of total dependency (as in the reality of the infant) to one of increasing self-directedness" (1973:45). According to this assumption adulthood is not a matter of age, but it is rather a psychological concept of self-directedness. So, when a person achieves psychological self-directedness, he or she is adult and should be perceived and treated by others as a self-directing adult.

The second assumption is that "as an individual matures he accumulates an expanding reservoir of experience that causes him to become an increasingly rich resource for learning, and at the same time provides him with a broadening base to which he relates new learnings" (1973:45). In andragogical techniques the emphasis has been changed from the traditional content transmission approach to the experience approach in which learners are involved in analyzing their experience.

The third assumption is that "as an individual matures, his readiness to learn is decreasingly the product of his biological development and academic pressure and is increasingly the product of the developmental tasks required for the performance of his evolving social roles" (1973:46). The developmental task phenomenon, as explained by Robert Havighurst (1972), suggests that individuals learn those things that they have to learn in order to move from one phase of a developmental task to the next phase. In pedagogy the assumption is that developmental tasks of children are the product of physiological and mental maturation. But in andragogy the assumption is that in adulthood, developmental tasks, and as a result, readiness to learn, are primarily the product of individuals' social roles such as worker, adult, or parent.

The fourth assumption is: "that children have been conditioned to have a subject-centered orientation to learning" (1973:47). Knowles further argues that the difference between andragogy and pedagogy is the result of a difference in time perspective and their view of learning. Children learn to acquire knowledge and skills which will be useful later in their lives. Adults engage in the learning process to learn how to cope with their current life problems, and so they become involved in educational activities which are problem-centered.

To Knowles, the responsibility of adult educators in the andragogical process is to provide educational techniques which enable adults to diagnose their own needs for learning, formulate

their objectives which satisfy those needs, design learning experiences, conduct learning experience with adequate materials and evaluate their own programs. The role of the adult educator is to help adults achieve their goals by providing educational opportunities, developing their full potentials and providing opportunities that help them to learn.

The theoretical basis for self-directed learning developed by Knowles has been explained in the above statements. Now it is appropriate to look at the self-directed learning concept more specifically. Knowles refers to self-directed learning as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning outcome" (1975:18). He further suggests that other labels found in the literature to describe this process are "self-planned learning," "inquiry method," "independent learning," "self-direction," "self-instruction" and "autonomous learning." But the different labels are often mistakenly associated with the belief that learning is in isolation and the learner does all his/her activity on an entirely independent basis.

Tough (1971) in his explanation of self-planned learning points out that different labels such as self-education, self-instruction, self-teaching, independent study, self-directed learning, and individual learning "are somewhat similar to self-planned learning projects, but not identical" (1971:42). He agrees that even though

the learner may obtain help from a variety of human resources and material resources, the key to being a self-planned learner is carrying on the responsibility for the detailed decisions and arrangements associated with the learning activities. However, Hiemstra defines self-planned learning as "a learning activity that is self-directed, self-initiated and frequently carried out alone" (1976:39).

Smith (1976) describes self-directed learning as having a special orientation to learning that "emphasizes the learner establishing and maintaining the major share of the responsibility for initiative and motivation in planning and carrying out his own learning activities" (1976:3). The process includes diagnosing needs, formulating goals and choosing resources and methods. He further states that when the learner accepts this responsibility, the major consequences for him will be learning how to learn on his own or with a little assistance from others.

Knox (1973) suggests that a self-directed learner is the person who continues learning, learning that is related to objectives that have high priority; such learning is supported in his selection from a variety of learning activities that are most appropriate for the specific curcumstances he confronts. For self-directed learning he suggests the following resources: printed media, electronic media, informal groups, formal groups, and tutorial schedules.

The nature of self-planned learning is consistent with a basic characteristic of adults as self-directing human beings. However,

as Knowles (1975) points out, adults are not adequately prepared for this type of learning. Then he cites Kidd and suggests that the primary purpose of education should be producing "a continuing, inner-directed, self-operating learner" (Kidd, 1975:47).

Research Which Concentrates on the Individual Learner

The first study which concentrated on the total pattern of learning effort and was concerned with understanding the individual's own report of his learning, was carried out by Houle in 1961. He suggested that for developing the theory and practice of adult education the nature of the individual adult learner should be discovered. Houle was interested in finding out the background experiences the learner thought had greatly influenced his continuing learning. He believed that our conceptions of the learner should be changed from observation to the learner's own self-conceptions. From this study Houle isolated three learning orientations:

1. The goal-oriented learner who uses education as a means to achieve specific objectives. Houle found that with this group, something commonplace like a flyer in the mail "will suddenly crystallize a sense of need which has only vaguely been felt before" (1961:18). That is the goal which initiates educational attempts (and the means will be selected for accomplishing the goal).

2. Activity oriented learners who participate primarily for reasons not related to the goals or content of the program. This

type of learner selects the activity based on the kind of human relationship she or he thinks that it might provide.

3. Learning oriented adults. This group of learners seek education for its own sake. "Each particular educational experience is an activity with a goal, but the continuation and range of such experiences make the total pattern of participation far more than the sum of its parts" (1961:23). Houle, in his analysis, has shown some of the benefits of looking at learning phenomenon through the individual learner. The findings of this research suggest that the exact nature of adult learning activities should be further explored.

Litchfield (1965) devised a scale to measure the total educational participation of each adult. An individual adult score was on the assessment of learning activity (by learner) with an educational goal. Litchfield came to the conclusion that: "There no longer appears to be any validity in the belief long held by 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 the question of the degree and kind of that participation" (1965:188). These findings support Houle's findings, and suggest that further study of the nature and extent of adult learning be done.

Up to this point (1965) in adult learning research, the learning of the individual had been estimated by the extent of participation in formal adult education programs. Also, the assumption underlying

research in adult learning was that when motivation and characteristics of adult learners in formal educational programs were understood, adult educators could use those findings to aid in the design of appropriate programs. So, most of the research in adult learning equated the single act of enrolling in formal educational programs with the entire range of deliberate learning efforts or adults.

Johnstone and Rivera (1965) conducted a comprehensive national survey which found that the total learning activity of adults in the United States included valuable learning activities outside of formal educational institutions. An estimated nine million adults in the U.S. conducted at least one self-directed learning project in a single year. From all the adults who had at least one educational activity during the year, 7.9% were engaged in self-planned learning. Home and family learning projects were the ones that the adults planned for themselves. The majority (59%) of learning in this area was self-directed. The authors asserted that the incidence of self-directed learning among adults was "surprising" and "much greater than anticipated." They recommend that "the category may well represent the most overlooked avenue of educative activity in the whole field" (1965:34). Johnstone and Rivera did explore alternative ways of learning in their national survey. But they did not specifically define the concept of independent study and they examined only a very small portion of learning planned outside of educational institutions. The interviewer did not explain the question and did not encourage the interviewer to consider various

possible examples of self-planned learning or probe into the meaning of the subject's responses.

A systematic inquiry of the self-learning undertaken by adults was initiated by Tough in 1965. Earlier studies identified the individual learning efforts which could be easily undertaken by adults. Because the formal learning activities were easier for adults to recall, many of the self-planned learning activities were omitted. Tough emphasized all the adult's deliberate learning efforts in everyday life, both inside and outside of educational institutions. To gather information about learning projects, Tough devised an in-depth, probing interview which stimulated the interviewee to recall the learning projects which she or he conducted during the preceeding six months.

The phenomenon as described by Tough

The phenomenon which has been described by Tough (1967, 1968, 1971) and is supported by many researchers who replicated his work is termed "learning project" or "a major learning effort." He defines the learning project as "a series of related episodes, adding up to at least seven hours within a consecutive 6-month period. In each episode, more than half of the person's total motivation must be to gain and retain certain fairly clear knowledge and skills, or to produce some other lasting change in himself, for it to qualify as an episode. For convenience the short hand label 'learning project' has been adapted to refer to this series of related episodes: a sustained, highly deliberate effort to learn" (1971:6).

The learning project phenomenon includes the following basic components:

1. The entire range of deliberate learning efforts. In the learning project any method can be used if the person's purpose in learning was to gain and retain certain knowledge and skills.

2. The major planner of a learning effort from one session to the next session can be the learner himself, a group, an individual, or a nonhuman resource.

3. Both noncredit learning and learning for degree or certificate are components of the learning project.

4. Most common motivation and less common motivation for learning is another component of a learning project.

In addition to the basic components of learning projects various aspects related to learning projects have been explored by many researchers. These aspects include: resources used, obstacles to learning, subject matter focus, reasons for beginning and continuing the learning project, (Tough, 1968), the learner planning the task (Tough, 1971), origins of current learning projects (Moorcroft, 1975), the learner planning steps in detail, and who helped with the self-planned learning project (Morris, 1977).

Tough and his associates (1971) through the extensive probing process conducted a survey of learning projects of 66 persons selected from seven populations: social science professors, municipal politicians, lower-class white-collar men, blue collar

factory workers, lower-class white-collar women, beginning elementary school teachers, and upper middle class women with preschool children.

The findings are summarized as follows:

1. "Almost everyone undertakes at least one or two major learning efforts a year and some individuals undertake as many as 15 to 20. The median is eight learning projects a year, involving eight distinct areas of knowledge and skill" (1971:1).

2. The typical range of time that the learners spend on learning activities is from 8 to 16 hours. Some individuals indicated that they spent more than 2,000 hours in learning projects in the preceding six months.

3. Tough found that the most common motivation for learning was application of a particular knowledge or skill. Usually the learners anticipated some outcome from their learning activities. Basically, adults conducted learning projects which were related to their occupations.

4. The findings also showed less than one percent of all learning projects were for credit (learning for a degree or a certificate).

5. This survey identified the major source of planning for the learning projects. Tough (1971) found that in 68% of the learning projects, the major responsibility for planning lies with the learner himself or herself. He also seeks assistance from friends, peers, professionals and nonhuman resources, even though

he maintains the responsibility for "detailed decisions" in planning the learning projects. The average adult conducted at least one project where the responsibility of planning was by a group or its leader. Almost 50% of the adults engaged in at least one project planned by an individual in a one-to-one relationship with the learner.

The above study discovered that a large proportion of the people were engaged in highly deliberate learning efforts outside of educational institutions. Although the sample was small and not randomly selected, the findings were impressive and recommendations were made that further research into the adult's deliberate efforts to learn be carried out with different population groups.

Since the Tough study several researchers have used the instrument and definitions to explore learning projects of adults in other populations. Coolican (1974) has summarized the results of studies up to 1974. Tough (1977) provided a later summary picture of the findings of various studies. In the following section, the studies which utilized Tough's definition and instrument for more research in the area of adult learning projects will be reviewed.

Studies concerned with professionals in the United States and Canada

McCatty (1973) studied learning projects of 54 randomly selected professional persons (engineering, law, education, medicine, architecture and science) in Ontario, Canada. The average professional person conducted 11.1 learning projects per year and

spent 1244 hours on the learning projects. Seventy-six percent of the learning projects were self-planned. The study reports that learning for credit was rare; only three of the participants in their learning projects had been motivated by credit and one percent of the total learning projects were for credit. McCatty also explored questions related to the major reasons for planning their own learning. His study reported that 55% of the total learning projects were vocational and 15% of the learning projects related to hobbies and recreation. The most common reason given for carrying out self-directed learning projects was the desire for individualized subject matter. The most common reason for a group type of learning was capability of instructor.

Johns (1973) studied the learning projects of 39 pharmacists from Atlanta, Georgia. He found that the average pharmacist had conducted 8.4 learning projects in the twelve months prior to the interview. The average number of hours spent on the projects was 1046; 56% of the total learning projects were self-planned; 16% were group planned; 9% were one to one methods; 19% were resource planned. This study reported that only 5% of the total learning projects were for credit. This study also explored questions relating to the subjects studied by pharmacists. Twenty-six percent of the projects were in the area of hobbies and recreation and fourteen percent were related to home and family.

In another study Fair (1973) examined the learning projects conducted by 35 first year elementary school teachers who were

selected randomly from two school districts in Ontario, Canada. Fair discovered that the teachers conducted an average of 8.8 learning projects during the 26 weeks preceding the interview. Each project lasted for approximately 57 hours. Ninety-seven percent of these learning projects were self-planned. Less than one percent of the projects were for credit applied toward a degree or certificate. In the curriculum area, the most important subject for their learning was language arts. In noncurriculum areas the most important subject to learn was child development.

Allerton (1974) studied the learning projects of 12 parish ministers in the Louisville, Kentucky metropolitan area. The research period was six months. Each minister kept learning diaries during the six month period. Eleven ministers in the sample conducted self-planned learning projects. The total number of projects conducted during the six months was 106, an average of 9.6 per person. The mean number of hours for each project was 52.6. These ministers devoted 65% of their time to vocational duties, 16% to hobbies and recreation, 8% to home and family life and the remaining 14% to other various interests.

Miller and Botsman (1975) studied the continuing education of Cooperative Extension agents. It was found that the average number of learning projects per agent was 12. Forty percent of these learning projects were self-planned. More than half of their learning was planned by experts and through workshops.

Kelley (1976) studied the learning projects of two groups of

secondary teachers from Cortland County, New York. Group one consisted of 20 teachers with one or two years experience in teaching. Group two also consisted of twenty teachers, but with 10 to 15 years experience in teaching. She found the average teacher had conducted 7.9 learning projects in the year prior to the interview. The total number of learning projects undertaken by the teachers ranged from two to seventeen. Kelley found that 68% of the projects were planned by the teacher himself/herself, 17% were planned by a group, 7% were planned by individuals in one-to-one relationships with learners, 0.3% were material resources planned and 7.9% were mixed planned. The mean number of self-planned projects per person was 5.4. She also found that teachers self-planned almost all of the projects related to "students" and "hobbies and recreation." She found that almost 50% of all projects conducted were in two content areas, subject matter and teaching learning process. Learning projects included learning new knowledge or skills related to teachers' fields. Learning for credit represented about 15% of all the projects conducted.

McCatty (1976) investigated the patterns of learning projects among physical and health education teachers. He found that the learning efforts of those teachers were largely self-planned and not for credit. For example, of the 21 teachers engaged in a personal fitness program for themselves, none of them did so in a group.

Miller (1977) identified the nature and extent of self-directed learning undertaken by teachers and nonteaching professionals in a

single school district in upstate New York. She selected randomly a sample of 60 elementary and secondary school teachers and non-teaching faculty. Major findings in this survey report were that faculty members conducted an average of five learning projects each and spent an average of 136 hours on a learning project over the six month period. Eighty-nine percent of the faculty members' learning projects were self-planned. In this study, one-fourth of the projects were motivated by self-fulfillment needs. Fifteen percent of the motivation to learn was in the category of professional growth and 12% was to satisfy a requirement. Formal credit was not reported at all as the motivation for beginning learning activity. The author reported that the major motivation for initiating a learning activity was to acquire the knowledge and skill for application on the job, in the community, and in one's personal life.

Benson (1974) studied the learning projects of fifty randomly selected college and university administrators in Tennessee. He found that the administrators undertook an average of 4.5 learning projects over a one-year period before the interview. The administrators spent an average of 269 hours on their learning projects in one year. This study reports that 75% of the administrators planned their own projects and 25% were group planned. Benson also found that 84% of the projects were job-related and 65% of them were related to the "decision making" and "coordinating" functions of their jobs.

Zangari (1977) studied the learning projects conducted over a one year period by 45 adult educators in post-secondary institutions in Nebraska. The data in this research show that adult educators undertook an average of 7.19 projects and spent a mean of 583.20 hours on those projects. Approximately 72% of the learning projects were self-planned, 15% were group-planned, and the remaining 13% were implemented through use of tutors or programmed materials. Learning for credit toward some degree or certification was not a major motivation for adult educators, as only three percent of the projects were undertaken for credit. Zangari also investigated the subjects studied by adult educators. He found that learning projects related to improving job performance and professional growth accounted for 37.65% of the total, with projects related to home and family, personal improvement, and hobbies also frequently cited as major areas of study.

Studies which focus on
adults of lower level of education

Armstrong (1971) found a significant number of learning projects among adults of low educational attainment in Toronto, Canada. The Tough instrument was applied to those who were identified as potential subjects by at least two instructors. Those scoring more than 300 hours of independent study during the preceding year (high attainment learners) and those scoring less (low educational attainment adults) were grouped separately. High attainment learners averaged 5.7 credit-oriented learning projects during the year.

They spent 1340 hours on their learning projects. Low educational attainment adults averaged 5.5 projects and spent 1177 hours on them. For the noncredit purpose, high attainment learners averaged 13.9 projects. They spent 1121 hours on them. The average low educational attainment adults conducted 3.4 noncredit projects in a year. They spent 100 hours on projects.

Johnson (1973) investigated the learning projects of 40 adults who had just completed their senior high school examinations in Ft. Lauderdale, Florida. The sample was randomly stratified on the basis of adults who had received adult high school diplomas and adults who had received a twelfth grade equivalency certificate and was drawn from a population of 710 adults. The average number of learning projects for adults was 14.4. The range was 6-29. Adults averaged 3.4 credit learning projects and 10.9 noncredit learning projects. They spent the average of 876.8 hours on the learning projects. Fifty percent of all the projects were planned by the learner and 43% of all learning projects were motivated by the adult's own desire to complete the project.

Studies which focus on mothers of pre-school age children and older adults

Coolican (1973) studied the learning project of 48 Syracuse, New York mothers of pre-school age children. The random sample was stratified on the basis of mothers whose oldest child was between 9 and 30 months and mothers whose oldest child was between 30 and 64 months. Coolican used one hour as the minimum time to qualify

as a learning project. It was found that young mothers conducted an average of 5.8 learning projects. The mean length per project was 43 hours. Sixty-six percent of learning projects were learner planned; 16% were group planned. Thirteen percent were planned on a one-to-one basis. Ninety-nine percent of the projects were undertaken on a noncredit basis. Almost half of young mothers' learning revolved around the home and family, 18% around hobbies and recreation and 11% was centered on personal development.

Hiemstra (1975) studied the learning activity of 214 adults (age 55 and older) in Nebraska with results surprisingly similar to the Coolican study. The data show that older adults each undertook an average of 3.3 learning projects and spent an average of 324 hours on them. Fifty-five percent of the projects were self-planned, 20% were group planned, 10% were planned on a one-to-one basis and 10% had no dominant type of planner. Fifty-four percent of the learning projects were self-fulfillment in nature which includes arts, crafts, recreation and religion. Twenty percent were for personal and family concerns such as mental and physical health, finance, homemaking; 15% were job related; 9% were for social and civic concerns. This study also reported that there were no significant differences in the number of learning projects or the number of hours spent on each one according to different age, male-female, urban-rural, and Mexican-American and white American categories. There were differences noted among different levels of education, social class, and occupations in the number of projects, but there

were no significant differences in the total number of hours.

Ninety-six percent of the learning projects were undertaken for noncredit purposes.

Studies which focus on different socio-economic groups of adults

Peters and Gordon (1974) studied the learning projects of 466 adults in urban and rural Tennessee. About 91% of the adults conducted at least one learning project during a year. Adults conducted an average of 3.9 learning projects and spent an average of 155.5 hours on these projects. Seventy-six percent of the projects were planned by the learner, 11% were group-planned, 6% were planned on one-to-one basis, 1% was resource planned, and 5% were planned through other means. Most of their learning projects were job-related or recreational in nature while a small number of projects were related to religion, personal improvement and family relations. This study also reported that adults chose the goal of increasing knowledge and understanding as their most frequent choice. Improving job performance was second.

Umoren (1977) explored the learning activities of 50 adults randomly selected from a socio-economic group in two neighborhoods in Lincoln, Nebraska. Thirty-eight of the adults in the sample were identified as low income people and 22 were middle or high income people. Adults conducted an average of 4.7 projects in the twelve months before the interview. They spent a mean of 554.5 hours on those projects. Approximately 40% of the learning projects were

learner-planned. Learning projects on a one-to-one basis were the next most common (32.75% of the projects). Sixteen percent were group planned and 10.8% were resource planned. The study also reported that higher income adults conducted more learning projects than did lower income adults.

Two studies in developing countries

Denys (1973) studied the learning efforts of 40 randomly selected professionals (20 were secondary school teachers, 20 were store managers) in Ghana. It was found that adults undertook an average of 4.0 learning projects during one year prior to the interview. They spent a mean of 92 hours per project. Seventy-five percent of the projects were self-planned, 11% were group-planned, 6% were planned on a one-to-one basis, and 4% were resource planned, and 3% did not have one dominant planner. Also, the findings show that only 7% of the projects were for credit toward a degree or a certificate.

Field (1977) studied the learning efforts of 85 adults of low literacy attainment in the Brownstown area in Jamaica. He found that adults conducted a mean of 4.2 learning projects each. They spent a mean of 504.3 hours per person in their learning activities during a one year period. The mean length of time of a learning project was 142.8 hours. Approximately 25% of the planners were individual and about 20% of the learning projects were planned by the learner himself. More than 50% of the planners were group leaders because so many learning projects focused on literacy

training and religion, two areas which seem to rely on group leaders. The respondents focused their learning efforts to attain literacy, or they focused on job-oriented, religious and home or family subject matter. Very few projects were undertaken in formal education. Only 3.8% of the learning projects were for academic credit. Approximately one-half of the learning projects were directed toward some kind of practical action in a job situation.

Summary of research findings

The combination of the findings of all these studies shows that the differences among several populations are not great. The large differences are not among populations; they are within the given populations. The findings which all the studies confirm in varying degrees have been summarized by Tough (1977):

1. Ninety percent of all adults conduct at least one major learning effort during the year before the interview.

2. The average learner conducts five distinct learning projects in one year.

3. The person spends an average of 100 hours per learning effort, a total of 500 hours a year.

4. Seventy-five percent of the learning projects are motivated by some anticipated use of the knowledge and skill; 20% of all learning projects are motivated by curiosity or puzzlement; 5% are motivated by credit toward a certificate or degree.

5. Who plans the learning efforts is fairly standard for "every study of adults finds a similar pattern, although the exact

figures vary a little" (Tough, 1977:6).

1. Seventy-three percent of all learning projects are planned by the learner himself/herself.

2. Ten percent are planned by a professional who leads a group.

3. Four percent are planned by a group of peers.

4. Seven percent are planned by a professional in a one-to-one situation.

5. Three percent are planned by a friend in a ont-to-one situation.

6. Three percent are planned by a professional indirectly through nonhuman resources such as programmed instruction. Briefly, about 80% of all the day-to-day decisions of planning the learning projects have been made by the learner or some other "amateur" and the other 20% are planned by a professional in the group, and in a one-to-one situation.

Looking at the above composite findings, Tough (1977) argues that until recently researchers looked only at the tip of the iceberg in adult learning. In adult education the visible portion of the iceberg is primarily learning in classrooms, workshops, auditoriums, or conferences, tutorial or correspondence study, and programmed instruction. But what has been unnoticed until fairly recently, the invisible portion of the iceberg, is self-planned learning. Looking at adult education efforts in terms of the whole body

of activity, the conclusion can be made that adult education institutions could not possibly meet all the learning needs of adults through their traditional programming services. Therefore, adult educational professionals must develop efficient and effective approaches for assisting adults with their deliberate self-planned learning efforts outside the traditional realm.

Relevancy to Present Research

This chapter has provided a review of the literature which has been considered to be relevant to the present study. First theoretical viewpoints on self-directed learning were explained. Secondly, recent research on adult learning efforts from individual learner perspectives were summarized. As the review of literature indicated, the research which describes areas of adult learning of those of low educational attainment was either lacking or incomplete and more research has been suggested by the previous researchers to answer the questions identified in this study.

Kidd (1974) in reviewing major educational concepts noted the research in the area of "the adult's learning project." He indicated that more research in this area was needed. He stated that "the research carried out thus far is incomplete though it seems to justify the following hypotheses: Many people, for many purposes, carry out substantial programs of self-directed education and training; this activity is found among people in all social classes and is probably found in all cultures; the capacity of self-directed

learning can be developed, can be taught; it seems probable that this capacity can be developed in children at an early age and could be fostered in the elementary school and in many activities for children as well as for youth and adults; the capacity might become a central objective in organized out-of-school or nonformal activities, functional literacy campaigns and similar programs; the cost-benefit ratio of studies designed to improve and enhance 'self-directed learning' may be extremely favorable" (1974:37). Generally, these suggested hypotheses guide the present study. If these hypotheses hold to be true, substantial changes would be in order in both the goals and methodology of adult education. Furthermore, it should be obvious that self-directed learning or learning how to learn can become a major education goal; thus, fostering and maximizing capacity for self-directed learning should be a central objective of functional literacy campaigns.

Melnick (1969), when discussing the topic of independent study, argues that only cursory research questions have been asked. He asks, "in what ways is IND (independent study) superior (to traditional teaching methods), for what kinds of students, with what kinds of training, studying what subjects, with what degree of faculty action?" (1969:13). These questions can be applied to self-directed learning.

This study is concerned with self-directed learning activities in adult basic education programs (adult basic education classes and learning centers) among students whose literacy level is 1

(0-8) and those whose literacy level is 2 (9-12). An understanding of the nature of adult learning activities--what is learned and how people learn--will provide a basis to develope more effective means for helping adults with these endeavors.

The philosophical justification for presenting this study is based on the thesis that man has the capacity for development as an active, seeking and autonomous organism. Jourard (1968) in discussing previous research in social science which looked at the passive aspect of man stated that "a man may live and share only his passive, reactive possibilities to his teacher or to a researcher. In solitude, or with some trusted other, he may experience and show his active, creative, or other unforseen possibilities" (1968:106). Tough (1971) has expressed this image of man as he looks at the learner as an active, autonomous person. The learning project research contributes "to the new conception of man . . . man as a self-directing organism with initiative, choices, freedom, energy and responsibility" (1971:5). That is the assumption about human nature on which this study rests.

CHAPTER III. METHODOLOGY

Overview

This chapter describes and discusses the methodology of the study. It presents the data collection procedures which include: the interview schedule, pretesting the interview schedule, conducting the interview, and the instrument's reliability and validity. It also describes the selection of population, sample, and data analysis techniques. In the last section, it describes the sample and analyzes the characteristics of the sample.

Nature of the Study

In the field of adult education, most of the previous research efforts have been factual, conceptual, or concerned with theory testing or verifying a priori assumptions. Factual assumptions have been examined primarily through survey research; conceptual assumptions by organizing or philosophically evaluating existing facts, theory testing and verifying a priori assumptions have come about either by borrowing and testing general concepts from the literature or from authorities in the field of psychology and sociology. The present research is of the survey type because its primary objective is to identify the general perceptions of ABE students with regard to their learning efforts.

It should be noted that one important result of research in education is a set of conclusions that involve theoretical terms. Travers (1978) suggested that "these conclusions may be at a sophisticated level of theorizing, or at a level of theorizing that is quite minimal" (1978:47). He further refers to the six levels of theorizing for the purpose of educational research, as suggested by Snow in 1973. The present study is at the first level of theorizing which is called "hypothesis formation." This kind of research involves "the determination of the nature of a particular state of affairs. Another name for this kind of research is fact gathering, but facts are not collected at random. Fact collectors are guided by a primitive theory of what to expect at level 1 (Snow's level of hypothesis formation). Such studies involve what we call state variables, that is to say, measures of some particular condition as it exists at a particular time. The purpose is to establish the existing state of affairs. Nearly all surveys are conducted for the latter purpose" (1978:48).

This study is guided by a primitive theory or hypothesis as suggested by Kidd (1974). Specifically, the independent and dependent variables are first described by utilizing the survey method, then possible relationships among the variables are explored. By using this method and focusing on ABE students, it is intended that the present study will contribute to the literature of learning projects and concurrently indicate whether the original hypothesis can be verified.

Population and Sample

The population chosen for this study was the adult basic education students of the Des Moines Area Community College District in Iowa. Only those students who enrolled in and attended adult basic education programs or intended to obtain a general education development diploma (GED) were included in the sample. Adults enrolled in other programs, such as English as a second language and programs for the handicapped, were excluded.

The sample was selected from class lists of all ABE students who were registered in August, 1978. These lists were obtained from the office of the director of ABE programs and the learning center supervisors and coordinators in the Des Moines Area Community College District. After randomly ordering the class lists, a systematic sample was selected according to the suggestion of Borg and Gall (1974:120). Under this procedure a sampling interval (k) is set and a number (r) between 1 and k is selected at random. With the population ordered in some manner, the rth element and every kth element thereafter is selected in the sample. Because of the time and expense involved, the author could not realistically plan to obtain more than 50 interviews. Since the total number of students in the population was 240, an integral sampling interval of 5 (which would yield a sample of 48 students) was the choice. The random start was 4. Therefore, starting with the fourth person on the first class list and counting consecutively through all the lists, the author selected every fifth student. This procedure

produced a sample consisting of 25 adult students from traditional adult basic education classes and 23 adults from learning centers in the district.

The interviews were conducted in the month of October, 1978. Since four students in the sample had dropped the program and four students had passed the GED test, the interviewer randomly chose replacement names. However, one student decided not to participate in the interview and another was not willing to answer all of the questions. Therefore, the number of respondents in the final sample was reduced to 46.

Data Collection Procedures

The data for this study were collected through in-depth interviews. Appendices A, B and C show the interview schedule, probe sheets and learning project data sheet (computer code sheet).

The interview schedule

For measuring the learning activities of adult basic education students, a modification of the "interview schedule" originally developed by Tough in 1969 and refined by him and other researchers in later years was used. In a personal conversation between Allen Tough and author in April 1978, the author was encouraged to use the "interview schedule" to identify the learning activities of the participant in this study.

The interview schedule explores the number and content of learning projects conducted by adults and the amount of time spent

in learning within the year preceding the interview. It also explores the source of day-to-day decisions for planning each learning project. It provides a probing technique which uncovers as many of the subject's learning projects as possible. The interview schedule also explores the current status of each of the learning projects, whether it was definitely active, not very active, or completed. It also provides information about the credit nature of the projects and the degree of satisfaction experienced in learning activities.

The researcher added sections to the original interview schedule as follows: the first section was designed to obtain answers on sex, race, age, type of location (traditional ABE classes or learning centers), literacy level, funding status and years of formal education. The second section was designed to determine the important obstacles encountered by learners while undertaking learning projects. The other section sought to identify the major methods of learning for self-planned projects and to explore an adult's reason(s) for choice of a particular planning category (group, one-to-one, self-planned and material resources).

The author participated in a three hour training session conducted by Dr. Hiemstra, chairman of the author's supervisory committee, who had directed learning project research with older adults in 1975. The training session dealt with the definition of learning projects (a series of episodes of a minimum duration of seven hours, where the primary purpose is to learn), how to build a relaxed,

trusting relationship and how to objectively collect data.

Before the pretesting phase, three versions of the schedule were drafted. Each version was subjected to additions, deletions, and changes. Dr. Hiemstra criticized each version of the interview schedule during development. Each version was tried out on some adult basic education students in Ames and Boone evening classes.

The schedule was ready for the pretesting phase in September, 1978. The probe lists on the methods and content of learning were developed by reviewing the recent relevant literature on learning projects (Hiemstra 1975, Umoren 1977, Field 1977) and from conversations with adult basic education directors in the Des Moines Area Community College District.

Pre-testing the interview schedule

In September, 1978, the interview schedule was pilot-tested with eight students who were registered in adult basic education programs. These students were not included in the study population. The primary purpose of the pre-testing was to obtain the experience necessary if the interview schedule was going to be utilized adequately and consistently with the sample of study. In addition, the instrument was examined in terms of clarity, convenience in use, etc.

During the interview process, individual questions were checked and rechecked ensuring to some degree their reliability. The result of the pilot interview suggested some modifications in wording of the probe sheets. It also suggested that probe sheets would have to

be shortened to make them easier to be read by the respondents. The researcher and the major advisor coordinated the final changes in the instrument.

The findings of the pilot-testing showed that respondents conducted a mean of 5.8 learning projects and spent an average of 359.21 hours conducting learning projects during the one year period prior to the interview. The self-planned learning was the most common learning activity. Most of the content of learning projects was in the area of job-related, family and home related and adult basic education programs. Most of the learning projects were noncredit and were completed. Most of the respondents were very satisfied with their learning. The most common method for self-planned projects was reading and conversation. These findings are fairly similar to the findings of the study which will be reported in Chapter IV.

Conducting the interview

When the sample was selected, appointments with the interviewee were made through learning center supervisors and coordinators and teachers in adult basic education classes. The interview took place at interviewees' homes, learning centers and in adult basic education classes after the regular hours. Usually 2 or 3 students were interviewed in one day and the time for each interview was an average of one and one-half hours.

After the researcher introduced himself, he tried to establish a relaxed, trusting atmosphere before beginning the interview. The

researcher explained to the students that he was conducting research for his doctoral dissertation, that any obtained data would be kept confidential, and that each respondent would not be identified by name. Then he introduced the research topic by saying: "My research is about people and the sorts of things they learn. Everyone learns, but different people learn different things--and in different ways. I am interested in talking with you to find out the things you have tried to learn during the past year and your potential learning needs so that an adult education program might be better prepared to help the people of Iowa." Then the researcher began to collect data on demographic variables as was designed on the first section of the schedule.

At this point the researcher then began to deal with section 2 of the instrument in an attempt to identify the obstacles to learning as perceived by the learner by saying "Many things stop people from taking a course of study, learning skills, or following a topic of interest. Which of the following do you feel are important in keeping you away from learning what you want to learn? I will read them to you and you select as many as you would like by saying yes or no." Then the list of obstacles to learning was read by the researcher.

Then, the researcher went on to the next section of the instrument which dealt with listing learning projects: "Now I am interested in listing the things you have tried to learn during the twelve months beginning with this month and going back twelve months. Then,

I have a few questions I would like to ask about each learning effort. It usually takes a person 15 to 20 minutes to think of learning efforts. When I say "learn" I do not just mean learning the sorts of things that people learn in schools. I mean any sort of deliberate attempt at all to learning something or to learn how to do something. Perhaps you tried to get some information or knowledge, to gain new skills or improve your old ones, or to increase your understanding. Can you think of any efforts like this that you have made during the past twelve months?" After pausing, the researcher made repeated oral probes in order to uncover learning projects (see the interview schedule in Appendix A).

After oral probes, the interviewee was handed sheet No. 1 (see Appendix B) which listed some of the ways that adults learn and was asked to read it. When he/she could not think of any more projects, the second probe sheet (see Appendix B) listing some things that adults learn was handed out.

During the identification of learning projects, it was necessary for the researcher to be sure that each project recalled by the student met the criteria for a learning project (see the interview schedule in Appendix A). The most important factor was to help the students become acquainted with the concept of learning projects.

When the list of learning projects was completed, the following information (each of the following is later referred to as a variable) was collected for each learning project:

Content. The content of the learning project was categorized by using Johnstone and Rivera (1965) classification.

Time spent on learning projects. Three ways in which time may be spent on the learning project was described: (1) deciding and planning, (2) traveling and arranging, (3) learning. The sheet No. 3 (see Appendix B) was handed to the interviewee and he or she was asked to read it.

Credit. The interviewee was asked if any part of his/her motivation for conducting the learning project had been desire for academic credit or certification.

Present status. The interviewee was asked to rate the learning project as definitely active, not very active, or completed.

Degree of satisfaction. The interviewee was asked to rate the project as very satisfied, somewhat satisfied, or very satisfied.

Day to day planner. For each project, the interviewee was asked to identify the planner (group, one-to-one, the learner himself/herself, the material resources, or a combination of two or more of the previous planners) which made the day-to-day decisions regarding what and how the student learned. Then sheet No. 4 was handed to the interviewee and he/she was asked to categorize the planner in one of the categories (see Appendix B). The group category

was divided into a group led by an instructor and a peer group. The one-to-one was divided into the sub-categories professional instructor and a friend.

Method used for self-planned learning. If the project was self-planned, he/she was asked to name the major method used in the project.

Reason for choice of a planner. In the final section of the interview, the interviewee was asked regarding one randomly selected learning projects in each of the four planner categories what was the reason he/she had chosen the particular planner category.

At the conclusion, the researcher thanked the interviewee by saying: "Thank you for your time and cooperation. I think that your efforts will help to make education more meaningful in the lives of many adults." The researcher also asked the student permission to call them after three weeks to make an appointment for follow-up study. Eleven students gave the researcher permission to phone them and the researcher was able to reach five of them. In the next section, the follow-up results will be discussed.

Reliability

The following actions were utilized in the design and adaptation of the interview schedule in an attempt to maximize its reliability.

1. As was explained in the previous section, the schedule was pilot tested with eight adult students from the target audience.

All questions were checked for wording, ambiguity and clarity. The researcher and his major advisor then discussed potential troublesome features and necessary corrections were made on the final form of the interview schedule.

2. Follow-up interviews with five adult students were carried out three weeks after the regular interview was completed. Results from the follow-up interview were consistent with results obtained during the initial interview; only one additional learning project from among all five students was educed. Due to the small size of the follow-up sample, it was not statistically analyzed, however, since there appeared to be no significant differences between the follow-up data and the first interview data in terms of number of hours spent on learning, obstacles to learning and methods used for self-planned learning, the researcher concluded that the interview schedule provided reliable results. Nevertheless, it is consistant to believe that follow-up interviews with more probing techniques could have uncovered a small number of additional learning projects.

3. To check the reliability of the interviewer to obtain comparable and similar results among the various respondents, the following statistical testing was performed. The total sample was divided into two groups based on the first 23 students who were interviewed and the second 23 who were interviewed. Then, the groups were compared by t-test on the total number of learning projects and total time spent on learning projects. As Table 1

Table 1. T-test comparison of two groups with number of learning projects pursued and number of hours spent in learning projects

	No. in group	Mean	Std. dev.
Number of projects			
Group one	23	6.56	2.51
Group two	23	6.52	1.89
F = 0.27	T = 0.19	NSS	
Number of hours			
Group one	23	399.17	253.65
Group two	23	415.87	190.16
F = 1.33	T = -0.25	NSS	

shows, no significant difference (at 0.01 level) was found when the total number of learning projects and total number of hours spent in learning by two groups were compared. Although this is not intended to be a reliability coefficient, it is one indication that the interviewer was consistent in gathering data.

Validity

The following efforts were performed to assess the validity of the interview schedule:

1. The instrument used in the present study was essentially a revised version of Tough's interview schedule. Other researchers have used this instrument as a whole, or in part, with different types of population to identify similar phenomena. Tough, in his initial development in 1969 and later version of the interview schedule, with assistance from other researchers (Tough, 1970), examined the content validity of the instrument. He looked at each item in terms of how accurately it was measuring adults' learning activities. In a personal conversation, Tough noted to the researcher that he believed the instrument would be quite valid in measuring the basic characteristics of learning projects.[1]

2. After the pre-testing phase, the researcher's advisor judged that the information obtained by the use the interview schedule accurately represented what in his experience reflected learning project data. In other words, as viewed by an expert in this area, the instrument appeared to be measuring obstacles to learning and learning project components.

3. Additional evidence for validation of the interview schedule comes from Hiemstra (1975) who examined the concurrent

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[1]Private conversation with Allen Tough, Adult Education Research Conference, in San Antonio, Texas, April, 1978.

validity of the "Tough" instrument because one aspect of the instrument in the present study is similar to Hiemstra's instrument. He found no significant differences between what adults prefer to learn and what they actually learned during the 12 months period preceding the interview. Again such data cannot be considered as definitive statistical verification; however, there is clear indication that the instrument actually measures the learning activities of adults. Additional validity work is required as suggested in the last chapter of this study.

Data Analysis

When the interview was completed, the quantitative data from the interview schedule was transferred to the learning project data sheet (see Appendix C). Then, data were analyzed in the following phases:

1. Various tables with frequencies, percentages, and means were constructed to form the basis for the analysis of much of the data through Chapter IV.

2. Crossbreak analyses were utilized in order to describe the relation between selected learning project variables, such as content and planner of learning projects, with other learning project variables, such as credit status, degree of satisfaction and present status of learning projects.

3. Crossbreak analyses and the chi-square statistic were used to test for significant relationships between each of the

characteristics, such as sex, race, age, type of location, literacy level, funding status and years of formal education, with other characteristics. Kerlinger (1967) suggests that crossbreak analysis is a very useful form of analysis which can be utilized with any kind of data; however, its major use is for nominal data, especially if the data are dichotomous in nature. He further explains that "the major purpose of crossbreaks, by conveniently juxtaposing research variables, enable the researcher to determine the nature of the relations between the variables. Crossbreaks . . . can be used to organize data in convenient form for statistical analysis. A x^2 test, for example, is easily applied to any crossbreak table" (626: 1967).

4. The t-test of significance was used to determine the differences between the mean number of learning projects, amount of total time spent on learning projects, amount of time spent on self-planned projects.

The "statistical package for the social sciences" (a computer package available through the Iowa State University's Computer Center) was used to compute the above statistics. The level of significance was established at the 0.05 level. Therefore, significance at the 0.05 level and beyond will be displayed in Chapter IV.

Description of Sample

Table 2 shows the demographic characteristics of ABE students in the sample. Approximately 40% are male and nearly two thirds are Caucasian. The age range is from 15 to 72 years. Approximately half of the students were at literacy level 1 (0-8) at the time of interviewing, and the rest of them at literacy level 2 (9-12) as determined by testing at the community college. One half of the students were participants in learning centers and the other half participants in traditional adult basic education classes. One third of the sample are students who are financed through different programs and organizations (stipended students) to attend adult basic education programs. Approximately one fourth of the students had less than eight years of formal education, the majority had eight to eleven years of formal education. Three students who had graduated from high school participated in ABE program to increase their knowledge in mathematics.

In order to identify if there is a difference between demographic data for the study sample and the 1977 enrollment statistics in Iowa Adult Basic Education Programs, chi-square comparisons were made. As shown in Table 3, it was revealed that on the demographic characteristics of sex, race and age, the sample of the study was representative of the total state population enrolled in adult basic education programs. However, the sample of the study included more level two students than would be expected in a truly representative sample. In the main, therefore, the study sample

Table 2. Various demographic characteristics of the respondents

Demographic variables	Response frequency	Percent
Sex		
Male	18	39.1
Female	28	60.9
Total	46	100.0
Race		
Caucasian	29	63.0
Negroid	17	37.0
Total	46	100.0
Age		
15-19	9	19.6
20-24	13	28.3
25-29	6	13.0
30-34	4	8.7
35-39	4	8.7
40-44	4	8.7
45-49	2	4.3
50-54	2	4.3
55-59	1	2.2
60-65	1	2.2
66 plus	1	2.2
Total	46	100.0
Type of location		
Traditional classes	23	50.0
Learning centers	23	50.0
Total	46	100.0
Literacy level		
Level 1	22	47.8
Level 2	24	52.2
Total	46	100.0
Funding status		
Stipended	16	34.8
Nonstipended	30	65.2
Total	46	100.0

Table 2. (continued)

Demographic variables	Response frequency	Percent
Years of formal education		
Less than 8th grade	12	26.1
8th-11th grade	31	67.4
High school graduate	3	6.5
Total	46	100.0
Present occupation		
Clerical, sales, technicians	5	10.9
Skilled manual employee	5	10.9
Semi-skilled	11	23.9
Unskilled	6	13.0
Homemaker	11	23.9
Unemployed	6	13.0
Retired	2	4.3
Total	46	100.0

can be said to be a fairly representative sample of all ABE students in Iowa.

Each demographic characteristic also was cross tabulated with other study variables to determine if there were any significant relationships between them. The summary of the relationships is displayed in Tables E-1 to E-7 (see Appendix E). However, the significant relationships are briefly explained below.

Race relationship with literacy level: The Caucasian respondents are functionally at higher levels of literacy than blacks.

Type of adult basic education program relationship

Table 3. Cross tabulation comparison of selected study demographic variables with 1977 enrollment statistics in Iowa's adult basic education program

Comparison variables	Study data		State data	
	No.	%	No.	%
Sex				
Male	18	39.1	11190	47.03
Female	28	60.9	12604	52.97
Total	46	100.0	23794	100.00
χ^2 value = 1.15	NSS[a]			
Race				
Caucasian	29	63.0	1605	59.49
Negroid	17	37.0	1093	40.51
Total	46	100.0	2698	100.00
χ^2 value = 0.24	NSS			
Age				
15-44	39	84.78	19745	82.98
45-65+	7	15.22	4049	17.02
Total	46	100.00	23794	100.00
χ^2 value = 0.11	NSS			
Level				
Level one	22	47.8	13166	67.48
Level two	24	52.2	6344	32.52
Total	46	100.00	19510	100.00
χ^2 value = 8.09	sig. = < .01			

[a]Not statistically significant.

with funding status: More learning center respondents are financed through different programs than respondents in traditional adult basic education.

Years of formal education relationship with literacy level: The respondents who have more years of formal education are in the higher level of literacy.

Thus, considerable is known about the sample and the reader can examine Chapter IV with an awareness of both the general and unique characteristics of the group.

CHAPTER IV. PRESENTATION AND DISCUSSION OF FINDINGS

Overview

This chapter presents the results of the data analyses. The results are divided into the following sections: (1) obstacles to learning; (2) extent of learning; (3) type of content area for learning projects; (4) major planners for learning projects; (5) reasons for choice of a planner; (6) learning projects status information; (7) major methods of learning for self-planned learning; (8) relations between learning project variables and demographic variables; and (9) relations among selected learning project variables.

Obstacles to Learning

In order to determine the problems adult basic education students encounter in their learning attempts, the following question was asked: "Many things stop people from taking a course of study, learning a skill or following a topic of interest. Which of the following do you feel are important in keeping you from learning what you wanted to learn?" A list of 13 suggested obstacles was read and the interviewees were asked to select as many as they wanted. Table 4 displays the responses of interviewees. The first column indicates the description of obstacles; the second column indicates the number of positive responses; the third column shows the percentage based on the total number of responses per item; and, finally, the fourth column shows the rank order of each of the responses.

Table 4. Obstacles to learning ranked by the number indicating "Yes"

Obstacle Description	Number saying "Yes"	Percentage[a]	Rank
Cost	24	52.2	1
Low grades in the past	22	47.8	2
I don't meet requirements to begin	21	45.7	3.5
No confidence in myself	21	45.7	3.5
No information on where I can get what I want	18	39.1	5
Amount of time required to complete	17	37.0	6
Not enough time	15	32.6	7
No transportation	13	28.3	8
Don't know what I'd like to learn	10	21.7	9
I don't enjoy studying	8	17.4	10
Friends or family don't like the idea	4	8.7	11.5
No place to study or practice	4	8.7	11.5
Don't have enough energy	2	4.3	13

[a]Percentages based on total number of response per item.

As Table 4 shows, "cost" received the highest ranking and accounted for 52 percent of the students. Further examination of the findings shows that the obstacles to low grades in the past, not meeting the requirements to begin a program, and lack of confidence ranked second, third and fourth respectively. The problem of not having information ranked next. The problem of time required to complete a program ranked number six, accounting for 37 percent of students who responded to this item. Time constraint ranked number seven with 32.6 percent of the response in this category. Obstacles related to transportation ranked number nine, accounting for 28.3 percent of those who responded to this item. The perception of personal problems, family-related constraints, and obstacles related to place of study received few positive responses. In general, learning activity in adult basic education was constrained most often by cost, low grades in the past, not meeting the requirements to begin a program and lack of confidence.

Hiemstra (1975) determined the obstacles encountered by older adults in their learning activities. The following are the most frequent obstacles to learning of older adults:

Don't like to go out at night	45.3%
Not enough time	39.3%
Cost	30.5%
Home responsibilities	30.1%
Job responsibilities	28.6%

Umoren (1977) did a study on learning activities of adults in a select socioeconomic group. His study revealed that cost, lack of

time, home responsibilities and job responsibilities were the most frequent obstacles to learning.

To sum up, adult basic education students like other adult populations have obstacles that prevent their participation in learning activities. However, because both similarities and differences exist in comparison to other populations, a knowledge of adult basic education students' obstacles is necessary. These obstacles should be taken into consideration by program administrators, directors and teachers of learning centers and adult basic education classes.

Extent of Learning

This section describes the extent of the learning projects conducted over a 12-month period by the respondents. The extent of learning was measured in terms of the number of learning projects conducted in the past year and the number of hours spent on learning projects in the same year.

Number of learning projects

An in-depth probing interview technique was utilized in order to stimulate recall of all learning projects carried out by respondents during the twelve-month period prior to the interview. For this purpose, respondents received two information sheets which described the methods and contents of learning (see Appendix B). Therefore, adult basic education students were asked to recall and describe all learning projects which they had conducted in the past

year.

The learning project had to be a deliberate effort to gain certain knowledge or skill, otherwise it was not included in the study. In addition, an intent to retain the knowledge or skill for at least two days must have existed. The minimum hours for each learning project had to be at least seven hours of involvement within a six month period. When these criteria were met, the project could be currently active, not very active or completed.

As Table 5 shows, each respondent identified at least three learning projects which he/she undertook during the year preceding the interview. Hence the rate of participation was 100 percent. During a one-year period, the respondents undertook an average of 6.59 learning projects per person; the median was 6.5, the standard deviation was 2.31 and the number of learning projects per person ranged from three to 12.

Number of hours spent in learning

Another method of identifying the extent of learning was to find out the time which respondents spent on learning projects during the one-year period prior to the interview. As presented in Tables 6 and 7, the respondents spent an average of 393.91 hours per person conducting learning projects. The median was 392.50, the standard deviation was 205.33, and the number of hours varied from 80 to 1164 hours.

Adult basic education students therefore do undertake considerable learning activity for their growth and development.

Table 5. Number of learning projects conducted in the past year

Number of projects	Number of participants	Percent of participants	Accumulative percent
1	-	-	-
2	-	-	-
3	3	6.5	6.5
4	10	21.7	28.3
5	3	6.5	34.8
6	7	15.2	50.0
7	4	8.2	58.7
8	9	19.6	78.3
9	6	13.0	91.3
10	2	4.3	95.7
11	1	2.2	97.8
12	1	2.2	100.0
Total	46	100	

Table 6. Adult basic education learning project: General descriptive information[a]

Information description	Hours	Projects
Average per person per year	393.31	6.59
Standard deviation	205.33	2.31
Median	392.50	6.50
Range	80-1164	3-12

Total number of projects = 303

Total number of hours = 18120

[a]Based on 46 individuals with three or more learning projects.

Although it is not possible to make exact comparisons, it would be interesting to note some of the similarities between this study's population and population in other studies. For example, the combination of the findings of all studies in different adult populations as explained on page 38 shows that 90% of the adults who were studied conducted at least one learning project in one year. The average learner conducts five distinct learning projects in one year and a person spends an average of 100 hours per learning effort. The data on the extent of learning demonstrate that adult basic education students in fact undertake somewhat more learning than the average person.

Table 7. Number of hours spent in learning project in the past year

Number of hours	Number of participants	Percent of participants	Accumulative percent
8 - 99	1	2.2	2.2
100 - 199	7	15.2	17.4
200 - 299	10	21.7	39.1
300 - 399	5	10.9	50.0
400 - 499	14	30.4	80.0
500 - 599	4	8.7	89.1
600 - 699	1	2.2	91.3
700 - 799	2	4.3	95.7
800 - 899	0	0	95.7
900 - 999	1	2.2	97.8
1000 - 1099	0	0	97.8
1100 - 1200	1	2.2	100
Total	46	100	

In comparison with those populations with somewhat similar backgrounds or with situations that somewhat constrain learning, the findings more closely compare. Field (1977), for example, found that low literacy attainment students in Jamaica conducted an average of 4.2 projects, spending an average of 120 hours on each project. Coolican (1973) found the mothers of pre-school age children conducted an average of 4.2 learning projects, spending 244 hours on the projects. Armstrong (1971) found that high-level learners conducted an average of 19.5 learning projects and spent 2455 hours on the projects, while "ordinary" learners in his study conducted an average of 8.5 learning projects and 1280 hours. It appears that the respondents in the present study were roughly equivalent to Armstrong's low learners in their extent of learning participation. Hiemstra (1975) found that older learners (average age was 68.11) conducted an average of 3.33 learning projects and 325 hours. Umoren (1977) found that learners from selected lower socio-economic groups conducted an average of 4.7 learning projects and spent 654.53 hours on the projects.

As will be noted in Chapter V, more research is required to understand more clearly the various similarities and differences.

Type of Content Area for Learning Project

The focus of each learning project was classified into one of seven categories which reflected various content areas. These categories are similar to those derived by Johnstone and Rivera (1965). Table 8 displays that adult basic education students

Table 8. Content areas in which adult basic education students conducted learning projects

Content area	Number of projects	Percent of projects
1. Family and home related	72	23.8
2. Job related	63	20.8
3. Personal improvement	48	15.8
4. Adult basic education	48	15.8
5. Recreation and hobbies	43	14.2
6. Public affairs and citizenship	15	5.0
7. Religion	14	4.6
Total	303	100

conducted learning projects in diverse content areas. The greatest number of projects, approximately 24 percent, were in the family and home-related content areas. Examples of home and family-learning projects are as follows:

1. A young mother tried to develop a new skill in how to deal with her one-year-old baby through readings and discussions with her relatives.

2. A middle-aged woman learned how to live more economically and be more efficient in purchasing through reading, by

watching consumer shows on television, and by listening to the radio.

3. A 34-year-old male learned to fill out tax forms through reading and conversation with an adult basic education teacher.

Job-related projects constituted the next greatest proportion of learning projects, accounting for almost 21 percent of all projects conducted. Examples of job-related projects are as follows:

1. A young man who is working in a nursing home learned how to deal with older adults by participating in group discussions directed by a professional.

2. A young man learned to work on the engines of small cars from discussions with his foreman and by reading his manuals.

3. A man of 33 learned carpentry skills with a group of other men under the direction of a skilled person.

4. A middle-aged woman learned about safety in the factory with her fellow workers by participating in a class under the direction of the factory administration.

Personal improvement represented one of the next largest groups of learning projects. Almost 16 percent of all learning projects conducted were in this category. Examples of personal improvement projects are as follows:

1. A young woman learned about personality development by reading materials and by attending the meeting of a peer

group.

2. A man of 45 learned about the influence of alcohol and drugs on the human body and the brain through reading.

3. A 35-year-old woman learned about dieting and watching her weight by conversation with a professional friend.

Adult basic education projects also represented the third largest category of all projects conducted. Almost 16 percent of all projects identified were in the content areas of becoming more competent in reading, writing, computation, developing coping skills and/or to obtain a general education development (G.E.D.) diploma. Recreation and hobbies, public affairs and citizenship and religion were the three categories receiving the fewest numbers.

Major Planners for Learning Projects

Tough (1971) describes the planner as "the person or thing responsible for more than half of the detailed day-to-day planning and deciding in a learning project" (1971:77). For classifying the learning projects reported in this study, Tough's (1971) categories were used: (1) self, (2) group, (3) one-to-one, (4) non-human resources, (5) mixed. These categories represent four distinct situations.

During the interview, each respondent was presented the sheet describing the five planner types (see Appendix A). Students were then asked to recall the major type of planner that they used for

each project. Table 9 displays the frequency of use of each learning project.

Self-planned learning was the most common learning activity, accounting for 57 percent of all learning projects. In other words, in pursuing learning projects, the learner himself or herself exerted major control over day-to-day decisions regarding what he/she wants to learn. Only three persons did not recall having any self-planned learning. The average number of self-planned learning projects per person in the period of one year was 3.8. The range in self-planned projects was from one to nine.

Groups led by professionals represented almost 14 percent of all learning projects. These projects were mostly conducted in the structured situation, usually in adult basic education classes or job-related training in which the professional instructor assumed the major responsibility regarding the planning of the learning projects. Almost three percent of the learning projects involved a situation in which a group of equals meeting outside any organized framework assumed the major responsibility for planning the learning.

In a one-to-one relationship with the learner, 12 percent of the projects identified were planned by a professional instructor or tutor. Most of these projects were conducted in Learning Centers where the instructor assumed the major responsibility for planning the learning. Other individuals in a one-to-one relationship accounted for six percent of the projects conducted; these project planners primarily were friends or relatives of the learner.

Table 9. Major planners for learning projects

Type of planner	Number of projects	Percentage of projects
Self-planned	173	57.1
Group		
Led by professional	43	14.2
Peers	8	2.6
One-to-one helper		
Professional	37	12.2
Friend	19	6.3
Nonhuman resources	12	4.0
Mixed	11	3.6
Total	303	100

Four percent of the projects conducted were planned by professionals indirectly through completely preprogrammed nonhuman resources such as programmed instruction that was available in the Learning Centers.

When more than one type of the above planner categories was used and none of the planners was dominant, the project was categorized as mixed. As Table 9 shows, approximately four percent of all projects conducted were in this category. It should be noted that in the mixed

planner the learner often assumed part of the responsibility for planning the project.

The above data demonstrate that adult basic education students assumed the major responsibility for planning more than half of their learning activities. Previous studies employing the Tough interview schedule with similar adult populations support these findings fairly closely. Johnson (1973) determined that 60 percent of the learning activity of adults who had just completed their senior high school examination was self-directed. Field (1977) identified 20 percent of the learning projects undertaken by Jamaican adults of low literacy attainment was self-directed and more than half of the planners were group leaders "largely because so many learning projects focused on literacy training and religion" (1977:139). Coolican (1973) determined that 66% of the learning projects undertaken by the mothers of pre-school age children was self-directed learning. Umoren (1977) identified that 40 percent of the learning projects undertaken by a selected lower socio-economic group was self-directed learning. Hiemstra (1975) determined that 56 percent of the learning activity of older adults was self-directed.

Reasons for Choice of a Planner

One of the objectives of this study was to identify an adult's reasons for choice of a planning category. The four categories identified in this study were self-planned, group planned, planned

by utilizing an expert in a one-to-one situation, and material resource usage where the planning had already been completed in the creation of the resource. The mixed planned category was excluded in this section. Of course, the reasons for choice of a planner are complex; several researchers have examined different factors which are influential in choice of a planner.

Koenig and McKeachie (1959) found that socio-economic status and age were related to the method orientation of adults. Butterdahl and Verner (1965) in a study of two groups of adults, one group in classes and another group in a discussion group studying the same subject, concluded that there were significant differences in terms of age, education, and occupation variables. Blackburn's (1967) study identified the possible relationships between the method orientation of adults and personal, social and personality characteristics of the adults. McCatty (1973) in a study of the patterns of learning projects among 54 professional men, suggested that identifying the reasons an adult has for choosing the planner helps to improve the understanding of findings related to method usage, such as self-planned, group, one-to-one, and material resources. Better understanding of these reasons are also crucial to the whole question of adult participation.

No one has identified the reasons for choosing a type of planner among adult basic education students. In this survey, it was decided to identify the conscious reasons perceived by those students for choosing the planning category. From each category

which had been recalled by each respondent, one learning project was randomly selected. Then the respondent was asked to indicate the reason(s) for choosing the planning mode he or she had selected for that learning project. In several cases, more than one reason was reported.

Reasons for choice of self-planned learning

The 45 respondents who identified self-planned learning projects reported 62 reasons for conducting self-planned projects. The summary of the results presented in Table 10 shows that almost 33 percent of the reasons for choice of self-planned learning was a desire for individualized subject matter; 15 respondents reported this reason. A man of 53 who learned current political events in Iowa by reading said that he could select the relevant materials he needed. A woman who learned Bible stories by reading reported that she knew what she wanted to read. A student who had dropped out of high school was actively working toward his G.E.D. test at the time of the interview. He said that he wanted individualized subject matter because he could work more effectively learning at his own speed.

Financial limitations accounted for 11 instances as a reason for choosing a self-planned learning. The respondents considered self-planned learning to be more economical than other forms of planning categories. For example, a woman who learned about heart problems reported that she employed a self-planned approach because it was more economical than taking a course.

Table 10. Reasons for choice of self-planned learning

Reasons[a]	Number of reasons given	Percent of total
Desire for individualized subject matter	15	24.19
Financial limitations	11	17.74
Most convenient	9	14.51
Ease of subject	7	11.29
Evidence of ability to learn	7	11.29
Outside planner not available	5	8.05
Flexibility of the time	3	4.83
Learning inappropriate for outside planner	3	4.83
Urgency to learn	2	3.22
Total	62	100.00

[a]The above categories and their rank by frequency were educed from the data analysis. In other words, the researcher grouped responses that were similar in nature within various categories.

In nine instances the respondents reported that they employed a self-planned learning approach because it was the most convenient method for them. As another example, a woman who learned how to be more efficient in purchasing by watching television and listening to the radio cited the convenience of radio and television as the main reason for her choice of method.

Ease of subject matter was reported in seven cases; evidence of ability or self-confidence was cited in another seven cases; in five cases, the respondents reported that because outside planners were not available, they chose a self-planned approach to learning; flexibility of time, learning inappropriate for outside planners, and an urgent need to learn made up the categories for the final eight choices of self-planned learning.

Reasons for choice of group-planned learning

The 34 respondents who had reported a project in the group planned category indicated 45 reasons for group-planned participation. The results are summarized in Table 11.

Availability of classroom material was reported in nine cases as a reason for choosing a group-planned category. This had the form of adult basic education classes or a job-related meeting directed by a professional.

In nine instances, respondents indicated that the capability of the instructor was the reason for using a group planner. This category took the form of adult basic education classes and lecture sessions about current political events.

The third most frequent reason for choosing a group-planned approach was the perceived efficiency of the group method. Several respondents in this category stated that their subject related to community problems and could be learned better by using a group approach. Four respondents who attended adult basic education classes stated that they needed the motivation provided by the group

Table 11. Reasons for choice of group-planned learning

Reasons[a]	Number of reasons given	Percent of total
Capability of instructor	9	19.56
Availability of classroom and material	9	19.56
Efficiency of group method	8	17.39
Group attraction	7	15.22
Employer pressure	6	13.04
Financial economy	4	8.70
Pressure by individual	2	4.35
Total	46	100.00

[a]The above categories and their rank by frequency were educed from the data analysis.

in order to learn effectively.

In six cases, the subjects had attended the group sessions because of pressures from their employer to obtain a G.E.D. diploma and/or related to their job. In four cases, respondents reported that a group-planned method had been more economical than using paid instructors. Finally in two cases, respondents identified that they had used group planning choice because of pressures from their families.

Reasons for choice of expert in a one-to-one situation

The 39 respondents who identified a learning project in a one-to-one situation, reported 46 reasons for choice of this type of planner. The results are shown in Table 12. The most frequent reason for the one-to-one planner was a reported superior efficiency; this was reported in 14 instances. Six respondents who attended a Learning Center stated that for mathematics and algebra the one-to-one situation is the most effective and efficient method for learning. Two students in adult basic education classes reported that they started to learn (G.E.D.) subject matter using the self-planned approach, but they changed it to the one-to-one instructor situation to improve their planning effectiveness.

In nine cases, the respondents reported that their reason for a one-to-one choice was availability of teacher and material. A woman who wanted to learn about antiques indicated that the availability of instructor and the instructor's materials was her main participation choice.

Flexibility of time was identified in nine instances as a reason for choosing this planner category. In six instances, respondents indicated that the subject matter they were interested in was most important in choosing a particular expert. In five projects, the respondent's employer selected an expert for some needed learning activity. Finally, in the three remaining projects the capability of a particular instructor was reported as the main reason.

Table 12. Reasons for choice of one-to-one learning method

Reasons[a]	Number of reasons given	Percent of total
Efficiency of effectiveness of method	14	30.43
Availability of teacher and materials	9	19.57
Flexibility of time	9	19.57
Subject matter was appropriate for this kind of planner choice	6	13.04
Employer pressure	5	10.87
Capability of instructor	3	6.52
Total	46	100.00

[a]The above categories and their rank by frequency were educed from the data analysis.

Reasons for choice of material planned learning

Nine interviewees who conducted projects by using the material-planned approach, reported 13 reasons for this type of learning. These reasons are summarized in Table 13.

In five cases respondents states simplicity of the plan was the reason for choosing material-planned learning. Three of these were respondents who attended learning centers in order to pass their G.E.D. test.

Table 13. Reasons for choice of material-planned learning

Reasons[a]	Number of reasons given	Percent of total
The simplicity of plan	5	34.46
Availability of materials	3	23.08
Flexibility of time	3	23.08
Financial economy	2	15.38
Total	13	100.00

[a]The above categories and their rank by frequency were educed from the data analysis.

In three projects, the responsents had chosen this type of planner because of the availability of materials. A woman learned about dietetics because the programmed material was available at Iowa State University.

In three instances, the interviewee's reason for this type of planner was flexibility of time. In two remaining cases, respondents who wanted to learn sewing said that this type of planner was more economical than one-to-one or group planned lessons.

Learning Projects Status Information

This section attempts to answer the following questions regarding the learning projects status: What is the extent of learning projects undertaken for credit or certification? Which learning projects are most satisfying to the learners? What is the status of the learning projects at the time of data collection?

Learning projects and credit

To determine the number of learning projects conducted for credit, interviewees indicated for each project if the major part of their motivation for learning was the desire for credit. In this study academic credit refers to work toward a high school equivalency diploma and any courses taken in formal education. Certification refers to governmental licensing and required certification for a particular job. As Table 14 displays, most learning projects, about 70 percent of all projects conducted, were noncredit. Learning for academic credit displayed a small percentage (about 13 percent) and 16 percent of the motivation to undertake learning projects was for obtaining certification.

These findings are consistent with the findings of similar studies. Johnson (1973) identified that 77 percent of the learning activities of adults who had recently completed their senior high school examination were not for credit. Field (1977) determined that 68 percent of all learning activity of adults of low literacy attainment were noncredit. These findings show that the criteria

Table 14. Credit status of learning projects

Type of learning project	Number of projects	Percentage of projects
Toward academic credit	41	13.5
Toward certification	49	16.2
Noncredit	213	70.3
Total	303	100.00

of success in learning activities of these students is not necessarily receiving "institutional paper recognition."

Degree of satisfaction with learning projects

In evaluating the learning projects identified by respondents, an indication of the amount of success that respondents have achieved in overcoming problems in learning was determined. For each project, adult basic education students were asked to respond to a question pertaining to their degree of satisfaction on a three point scale: (1) very satisfied; (2) somewhat satisfied; (3) not very satisfied.

Respondents described most of their learning projects by stating they were somewhat satisfied or very satisfied. They were somewhat satisfied with 46 percent of the learning projects and very satisfied with 35 percent. They were not very satisfied in approximately 19 percent of the projects. Table 15 displays a summary of the data.

Table 15. Degree of satisfaction with learning

Degree of satisfaction	Number of projects	Percent of projects
Very satisfied	106	35.0
Somewhat satisfied	140	46.2
Not very satisfied	57	18.8
Total	303	100.0

Current status of learning projects

For each learning project, respondents were asked to assess the current status of the project according to the following scale: (1) definitely active; (2) not very active; (3) completed. Table 16 shows that almost 33 percent of all learning projects were ongoing at the time of the interview, while 42 percent were completed and almost 25 percent were not very active. This finding is fairly similar with the findings of related study by Johnson (1973).

Table 16. Current status of learning projects

Status of project	Number of projects	Percent of projects
Definitely active	99	32.7
Not very active	77	25.4
Completed	127	41.9
Total	303	100.0

Major Methods of Learning for Self-planned Learning

The most common type of planning in this study was self-planned learning. Although the self-planned learner retains the responsibility in day-to-day planning and decision making in what he/she should learn and how he/she should learn, he/she obtains help from a variety of human and material resources. In this study, for each of the self-planned projects, the learners were asked to identify their major method of learning. More specifically, the question was asked regarding who or what provided most of the subject matter for learners (people, material, radio or television). The responses were categorized later.

As a summary of the data presented in Table 17, in 81 of the 173 projects, a single method was reported by the respondent; in

Table 17. Major methods of learning for self-planned learning

Method[a]	Number of projects	Percentage
A single method most prevalent		
Reading	39	22.5
Conversation	15	8.7
Observation	14	8.1
Television and/or radio	7	4.0
Doing	5	2.9
Other	1	0.6
Subtotal	81	
Two methods most prevalent		
Reading and conversation	25	14.5
Observation and doing	22	12.7
Reading and doing	10	5.8
Reading and television and/or radio	9	5.2
Observation and conversation	6	3.5
Television and/or radio and doing	5	2.9
Other	2	1.2
Subtotal	79	
Three methods most prevalent		
Conversation, observation and doing	5	2.9
Reading, conversation and doing	4	2.3
Reading, observation and conversation	2	1.2
Other	2	1.2
Subtotal	13	
Total	173	100.0

[a]The given methods were categorized based on McCatty's (1973) classification.

79 cases, two most prevalent methods were identified, and in 13 cases there was a combination of three methods. The most common single method for self-planned projects was reading. Reading materials, such as simply written books, newspapers, journals and magazines, were employed as the source of information. A young man had read newspapers and magazines in order to prepare himself for informed voting. A middle-aged woman read a journal in order to learn about school systems in Iowa. A homemaker--a woman of 34--read five short books about bible studies. A man of 72 had read a pictorial book about the role of the United States in World War II.

The second most common single method for self-planned learning projects was conversation, either with one or several persons. A 35-year-old woman who wanted to know about dieting and watching her weight, learned by conversation with a friend. A young man who wanted to know how to adapt himself to a new situation, went to some counseling services and discussed his question with several people. A man of 45 years reported that he had learned about the influence of alcohol and drugs on the human body entirely through conversation. He mentioned that as a result he had given up drinking and smoking. One conclusion is offered: the conversation method was used mainly for personality development.

When reading was combined with conversation, the most common combination of two methods, the data showed this approach was used in 25 of the 173 projects. A woman who wanted to learn about community problems had read the material first, then attended a peer

group meeting. A homemaker of 46 years reported that she had obtained bible knowledge by reading the book and conversation with her friends.

Observation was reported in 14 self-planned projects as the single method of learning. For example, in learning hobbies several women reported that they had learned embroidery, needlepoint and macrame by observing others working at it.

Watching television and/or listening to the radio was identified in seven projects as the single method of learning. As another example, a middle-aged woman used this method to be more efficient in purchasing.

Doing was a less common single method for self-planned learning projects. However, when doing was combined with observation, the data showed that 22 of the 173 self-planned projects, the second most common combination, dependended on these methods. A man of 19 learned about automotive electrical systems by observing a professional and then by working on his own vehicle.

There were, however, 10 projects in which doing was combined equally with reading, six projects in which observation was combined with conversation, and five projects in which doing was combined with television and/or radio. Finally there were eleven projects in which conversation was combined with two other methods.

Relation Between Learning Project Variables and Demographic Variables

One objective of this research was to explore the relation between learning project variables and demographic variables. The selected learning project variables for this section were: (1) number of learning projects undertaken, (2) number of hours spent pursuing learning projects, and (3) number of hours spent pursuing self-planned projects. The demographic variables identified in this study were: sex, race, age, type of location, level of literacy, years of formal education and funding status. More specifically, in this section the various demographic variables were tested for significance in determining the extent of differences in undertaking learning projects as identified in the preceding sections.

Number of learning projects undertaken

To consider the relation between the mean number of learning projects and demographic variables, t-tests were computed. As shown in Table 18, it was revealed that respondents who were functioning at a higher literacy level conducted a statistically significant greater number of projects. This result is very similar to Hiemstra's (1975) findings; he reported that those whose formal educational levels were higher, conducted more learning projects in the one year period.

Field (1977) differed somewhat in his report that there is no relation between the literacy level and the differences in participation in learning projects. The possible reason for this difference

Table 18. T-test comparison of various demographic variables with the number of annual learning projects

Comparison variable	No. in group	Number of projects	
		Mean	Std. dev.
Sex			
Male	18	6.33	2.4
Female	28	6.75	2.29
F = 1.1 t = -0.59	NSS[a]		
Race			
Caucasian	29	6.69	2.41
Negroid	17	6.41	2.21
F = 1.19 t = 0.39	NSS		
Age			
15-34	30	6.83	2.1
36-72	16	6.13	2.68
F = 1.63 t = 0.99	NSS		
Type of location			
ABE classes	23	6.22	1.91
Learning centers	23	6.96	2.65
F = 1.94 t = -1.08	NSS		
Level of literacy			
Level one	22	5.77	2.37
Level two	24	7.33	2.04
F = 1.35 t = -2.40	Sig. = < .02		
Years of formal education			
Less than 8th grade	13	6.00	2.67
8th - 12th grade	33	6.82	2.16
F = 1.54 t = -1.08	NSS		
Funding status			
Stipended	16	6.62	2.19
Nonstipended	30	6.57	2.42
F = 1.22 t = 0.08	NSS		

[a]Not statistically significant

might be the definition of literacy levels which he used in his study. According to his classification, students in level 1 are unable to read words or numbers; those in level 2 are able to recognize simple words and figures; while those in level 3 can read simple sentences. As Field (1977) reported, the most common method for a learning project was using oral channels of communication, which means because of low ability to read, the literacy levels were of no influence on the number of learning projects.

When the relation between number of learning projects and age was considered, it was revealed that different developmental tasks at different stages of the life cycle were not manifested in the variation of number of learning projects. Hiemstra (1975) reported similar findings.

Number of hours spent pursuing learning projects

The demographic variables also were tested for significance in a comparison of the number of hours spent by the respondents in a pursuit of learning. As Table 19 shows, there was a significant difference between the number of hours spent in pursuing learning projects and the funding status of the adult students. In other words, the nonstipended respondents spent statistically a significantly greater number of hours in their learning projects (0.05 level of significance). The stipended or nonstipended variable was not identified in previous studies. Thus, Hiemstra's (1975) findings of no significant differences in the average hours spent in learning according to various demographic characteristics primarily are

Table 19. T-test comparison of various demographic variables with the number of hours spent annually in learning projects

Comparison variable	No. in group	Number of projects	
		Mean	Std. dev.
Sex			
Male	18	364.17	187.78
Female	28	413.03	217.02
F = 1.34	t = -0.78	NSS[a]	
Race			
Caucasian	29	372.21	189.57
Negroid	17	430.94	231.05
F = 1.49	t = -0.94	NSS	
Age			
15-34	30	387.00	171.74
35-66+	16	406.88	263.03
F = 2.35	t = 0.27	NSS	
Type of location			
ABE classes	23	369.30	178.88
Learning centers	23	418.52	230.17
F = 1.66	t = -0.81	NSS	
Level of literacy			
Level one	22	382.18	225.36
Level two	24	404.67	189.39
F = 1.42	t = -0.37	NSS	
Years of formal education			
Less than 8th grade	13	402.38	276.98
8th - 12th grade	33	390.58	174.58
F = 2.52	t = 0.14	NSS	
Funding status			
Stipended	16	326.68	131.49
Nonstipended	30	429.77	229.47
F = 3.05	t = -1.94	Sig. < .05	

[a]Not statistically significant.

among nonliterate and semiliterate adults in Jamaica, found that there was a significant difference between the number of hours spend in learning and sex, age, and literacy levels. Obviously, additional study is required to understand more fully these relationships.

Number of hours pursuing self-planned projects

As was mentioned before, the greatest number of learning projects were in the self-planned category. During the year preceding the interview, adult students spent a mean of 192.91 hours per person in self-planned projects.[a] In this section the mean number of hours respondents spent at their self-planned projects was compared for all demographic variables. As shown in Table 20, the results revealed that those who were functioning at a higher level of literacy and those who were nonstipended spent, statistically, a significantly greater number of hours in their self-planned projects. Age, race, sex, type of location and years of formal education were of no significance in determining the number of hours spent in self-planned projects.

It is interesting to note that when the mean proportion of self-planned hours to total project hours were compared for the demographic variables (see Table 21) it was found that those who were at higher levels of literacy and those whose formal educational levels were higher, spent, statistically, a significantly greater

[a]In a comparison, students spent 59.8 hours per project for all projects and a mean of 47.9 hours per project for self-planned projects.

Table 20. T-test comparison of various demographic variables with the number of hours spent annually in self-planned projects

Comparison variable	No. in group	Number of hours	
		Mean	Std. Dev.
Sex			
Male	18	193.00	190.25
Female	28	192.86	126.45
F = 2.26	t = 0.00	NSS[a]	
Race			
Caucasian	29	206.00	172.6
Negroid	17	170.53	111.59
F = 2.39	t = 0.76	NSS	
Age			
15-34	30	190.63	157.19
35-66+	16	197.19	148.32
F = 1.12	t = -0.14	NSS	
Type of location			
ABE classes	23	187.30	165.49
Learning centers	23	198.52	141.90
F = 1.36	t = -0.25	NSS	
Level of literacy			
Level one	22	134.82	109.19
Level two	24	246.17	168.66
F = 2.39	t = -2.68	Sig. = < 0.01	
Years of formal education			
Less than 8th grade	13	153.92	122.66
8th - 12th grade	33	208.27	161.91
F = 1.74	t = -1.09	NSS	
Funding status			
Stipended	16	143.25	82.92
Nonstipended	30	219.40	174.53
F = 4.43	t = -2.00	Sig. = < 0.05	

[a]Not statistically significant.

Table 21. T-test comparison of various demographic variables with the proportion of self-planned project hours to total project hours for a one-year period

Comparison variable	No. in group	Proportion of self-planned to total project hours	
		Mean	Std. dev.
Sex			
Male	18	0.44	0.26
Female	28	0.46	0.23
F = 1.31	t = -0.27	NSS[a]	
Race			
Caucasian	29	0.48	0.26
Negroid	17	0.41	0.20
F = 1.67	t = 1	NSS	
Age			
15-34	30	0.45	0.22
35-66+	16	0.45	0.29
F = 1.73	t = 0.04	NSS	
Type of location			
ABE classes	23	0.45	0.26
Learning centers	23	0.45	0.22
F = 1.40	t = 0.03	NSS	
Level of literacy			
Level one	22	0.33	0.20
Level two	24	0.56	0.22
F = 1.15	t = -3.73	Sig. = < .001	
Years of formal education			
Less than 8th grade	13	0.36	0.22
8th - 12th grade	33	0.49	0.24
F = 1.17	t = -1.73	Sig. = < .01	
Funding status			
Stipended	16	0.42	0.20
Nonstipended	30	0.47	0.26
F = 1.75	t = -0.59	NSS	

[a]Not statistically significant.

proportion of hours in their self-planned learning. However, no relationships were found between the proportion of hours in self-planned projects and funding status.

Relations Among Learning Project Variables

One general objective of this study was to explore the relations between selected learning project variables and other learning project variables. The selected learning variables refer to: (1) content of learning and (2) planner of learning. The other learning project variables are: (1) planner of learning, (2) credit status; (3) degree of satisfaction; (4) current status of learning projects.

Relation between content of learning and choice of planner

In this study seven content areas were identified: job-related, recreation and hobbies, family and home related, personal improvement, religion, public affairs and citizenship, and adult basic education. As has been shown in Table 2 , the above seven content areas of learning projects are cross-tabulated with the five types of planner choice described in the previous section.

For educators who attempt to provide more education for adult basic education students, it is very important to know the relationship between the choice of planner and the content areas of adult learning. Johnstone and Rivera (1965) in a study of learning activities of 23,950 adults, examined the relationship between content areas of learning and the seven methods of study which they determined.

Table 22. Content areas of all learning projects identified by type of planner

Credit status	Job related		Recreation and hobbies		Family and home		Personal improvement		Religion		Public affairs		Adult basic education	
	F[a]	%[b]	F	%	F	%	F	%	F	%	F	%	F	%
Self	25	39.7	25	58.1	56	77.8	32	66.7	5	35.7	13	86.7	17	35.4
One-to-one	17	27.0	14	32.6	5	6.9	7	14.6	2	14.3	-	-	11	22.9
Group	16	25.4	2	4.7	6	8.3	5	10.4	7	50.0	2	13.3	13	27.1
Material	2	3.2	2	4.7	3	4.2	3	6.3	-	-	-	-	2	4.2
Mixed	3	4.8	-	-	2	2.8	1	2.1	-	-	-	-	5	10.4
Total	63	100.0	43	100.0	72	100.0	48	100.0	14	100.0	15	100.0	48	100.0

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within a content area.

They found that the traditional classroom was the most frequent form which had been used in studying academic, vocational, personal development and religious subject matter; self instruction was most frequent in hobbies, agriculture and home-related subject matter. They also found that attending lectures was the most frequent form in learning public affairs and current event subject matter. McCatty (1973) in a study of learning projects among 54 professional men, investigated the relationship between subject matter and type of planner. He reported similar relationships existed.

As Table 21 displays, the self-planned category was used by the largest percentage of participants in the job-related content area. In other words, almost 40 percent of the job-related projects were planned by the learner, while 27 percent were in the one-to-one category and 25 percent were planned by a professional leader in a group.

The total number of projects in the content area of recreation and hobbies was 43. The largest percentage of those projects was self-planned. As Table 21 shows, the one-to-one and group planned projects were substantially less than the self-planned. This finding entirely supported McCatty's (1973) finding.

Of the 72 learning projects in the family and home related area, 58 percent were self-planned and 32.6 percent were in the one-to-one category. It should be noted that many home and family projects were taken by the women in the sample.

As Table 21 shows, 66.7 percent of the projects in the personal

improvement area were self-planned in nature, while 14.6 percent were in the one-to-one category. There were 14 projects in the category of religion. The largest proportion were self-planned.

The largest percentage of self-planned projects (86.7%) within a content area was in the public affairs group. This finding also supports the McCatty (1973) findings. The second largest percentage of group-planned projects (after the category of religion) was in the adult basic education category.

Relations between content of learning and credit status

In this section, the identified seven content area categories were cross tabulated with the credit status of learning projects. To determine the credit status of learning projects, respondents were asked for each project to respond to a question regarding their major motivation for learning in terms of the following: (1) toward academic credit, (2) toward certification, (3) noncredit.

As shown in Table 23, 83 percent of the motivation to undertake learning projects in the content area of adult basic education was for obtaining academic credit; this included high school equivalency diploma work and/or courses taken in formal education. Thirty-four projects in the job-related content area were for obtaining required certification for a particular job or obtaining government licenses. Generally, the largest percentage of projects in all content areas, other than adult basic education and job-related, were in the noncredit category.

Table 23. Cross tabulation comparisons of content of learning projects and credit status

Credit status	Job related		Recreation and hobbies		Family and home		Personal improvement		Religion		Public affairs		Adult basic education	
	F[a]	%[b]	F	%	F	%	F	%	F	%	F	%	F	%
Credit	1	1.6	-	-	-	-	-	-	-	-	-	-	40	83.3
Certification	34	54.0	1	2.3	7	9.7	4	8.3	-	-	-	-	3	6.3
Noncredit	28	44.4	42	97.7	65	90.3	44	91.7	14	100.0	15	100.0	5	10.4
Total	63	100.0	43	100.0	72	100.0	48	100.0	14	100.0	15	100.0	48	100.0

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within a content area.

Relation between content of learning and degree of satisfaction

The respondents were asked a question relating to their degree of satisfaction with each learning project on a three-point scale: (1) very satisfied, (2) somewhat satisfied, (3) not very satisfied. Then the seven content areas identified in the study were cross tabulated with the respondent's degree of satisfaction. Generally, as Table 24 shows, respondents reported that they were satisfied with their learning projects in all content areas, but particularly with the public affairs and job related projects. Only on eight job-related projects were respondents not satisfied. Projects in adult basic education produced a higher percentage of "very satisfied", although the respondents in 14 projects were not very satisfied with their learning in this area.

Relation between content of learning and current learning project status

The seven content categories identified in this study were cross tabulated with the reported current status of each learning project. To identify the status, the respondents were asked to assess their learning projects on a three-point scale: (1) definitely active, (2) not very active, (3) completed.

As Table 25 shows, the definitely active category was used by a larger percentage of participants than any other category in the adult basic education content area. In contrast, almost 56 percent of the job related projects were completed.

Table 24. Cross tabulation comparisons of content of learning projects and the degree of reported satisfaction

Degree of satisfaction	Job related		Recreation and hobbies		Family and home		Personal improvement		Religion		Public affairs		Adult basic education	
	F[a]	%[b]	F	%	F	%	F	%	F	%	F	%	F	%
Very satisfied	25	39.7	12	27.9	22	30.6	18	37.5	5	35.7	4	26.7	20	41.7
Somewhat satisfied	30	47.6	24	55.8	33	45.8	22	45.8	6	42.9	11	73.3	14	29.2
Not very satisfied	8	12.7	7	16.3	17	23.6	8	16.7	3	21.4	-	-	14	29.2
Total	63	100	43	100	72	100	48	100	14	100	15	100	48	100

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within each content area.

Table 25. Cross tabulation comparisons of content of learning projects and the reported current status of the learning projects

Status of projects	Job related		Recreation and hobbies		Family and home		Personal improvement		Religion		Public affairs		Adult basic education	
	F[a]	%[b]	F	%	F	%	F	%	F	%	F	%	F	%
Definitely active	15	23.8	13	30.2	12	16.7	16	33.3	5	35.7	2	13.3	36	75
Not very active	13	20.6	12	27.9	19	26.4	13	27.1	7	50	6	40	7	14.6
Completed	35	55.6	18	41.9	41	56.9	19	39.6	2	14.3	7	46.7	5	10.4
Total	63	100	43	100	72	100	48	100	14	100	15	100	48	100

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within each content area.

The percent of projects reported as being not very active at the time of interview was considerably less than other categories in all content areas except for the religion area.

Relation between planner choice and the credit status of learning projects

In Table 26, the five types of choice of planner categories which were used in this study--self, one-to-one, group, material, and mixed--are cross tabulated with the credit status of each learning project. As was expected, the great majority of self-planned projects (81 percent) were undertaken on a noncredit basis. Similarly, noncredit learning projects accounted for 75 percent of material planned projects. However, approximately one-half of group planned and individual planned projects were reported as noncredit projects.

Relation between planner choice and degree of satisfaction

The five types of planner categories were cross tabulated with the degree of satisfaction. As shown in Table 27, respondents reported overall satisfaction with all the different planning modes. They reported that projects utilizing a mixed planner category produced the highest degree of satisfaction, even though few respondents used this planning category. Of those projects in which a one-to-one planner choice was made, 41 percent indicated they were very satisfied. Of the 173 projects in the self-planned category, the great majority provided satisfying results, with only 21 percent reporting

Table 26. Cross tabulation comparisons of type of planner choice and the credit status of learning projects

Creditation	Self		One-to-one		Group		Material		Mixed	
	F[a]	%[b]	F	%	F	%	F	%	F	%
Credit	11	6.4	11	19.6	12	23.5	2	16.7	5	45.5
Certification	22	12.7	11	19.6	14	27.5	1	8.3	1	9.1
Noncredit	140	80.9	34	60.7	25	49.0	9	75.0	5	45.5
Total	173	100	56	100	51	100	12	100	11	100

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within a planner choice category.

a feeling of not very satisfied. One-to-one and material planner choice had even smaller not very satisfied reports.

Relation between planner choice and status of learning projects

The five planner categories identified in this study were cross tabulated with the present status of each learning project reported by the respondents. As shown in Table 28, the largest proportion of definitely active projects was in the one-to-one planner category, which refers to those projects that students conducted by attending

Table 27. Cross tabulation comparison of type of planner choice and degree of satisfaction

Degree of satisfaction	Self		One-to-one		Group		Material		Mixed	
	F[a]	%[b]	F	%	F	%	F	%	F	%
Very satisfied	55	31.8	23	41.1	17	33.3	4	33.3	7	63.6
Somewhat satisfied	81	46.8	28	50.0	21	41.2	7	58.3	3	27.3
Not very satisfied	37	21.4	5	8.9	13	25.5	1	8.3	1	9.1
Total	173	100	56	100	51	100	12	100	11	100

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within each planner choice category.

Table 28. Cross tabulation comparison of type of planner choice and status of learning projects

Status of learning projects	Self		One-to-one		Group		Material		Mixed	
	F[a]	%[b]	F	%	F	%	F	%	F	%
Definitely active	45	26.0	26	46.4	19	37.3	4	33.3	5	45.5
Not very active	53	30.6	9	16.1	9	17.6	3	25.0	3	27.3
Completed	75	43.4	21	37.5	23	45.1	5	41.7	3	27.3
Total	173	100.0	56	100.0	51	100.0	12	100.0	11	100.0

[a]F = Frequency of learning projects.

[b]% = Percent of total learning projects within each planner choice category.

the learning centers. Also, nine definitely active projects are in the group-planned category which includes those projects conducted by attending traditional adult basic education classes.

While 75 of the 173 self-planned projects were completed, the percentage of self-planned projects which were not very active (31 percent) was larger than the corresponding number for any other type of planner category.

Summary

This chapter provided an overview of the nature and extent of learning projects conducted by adult basic education students in the Des Moines Area Community College District, Iowa. A sample of 46 students was systematically selected to represent the population of adult basic education students in the district. The primary focus of the analysis is on the following aspects: obstacles to learning; the extent of learning; what ABE students learned; who planned their learning, why they have chosen a particular planner; the method they used for pursuing the self-planned learning; the credit status of their learning and the degree of satisfaction with their learning endeavor; the possible relation between learning project variables and demographic, as well as other learning project variables. Chapter V describes in greater detail some of the implications related to the analyses reported above.

CHAPTER V. SUMMARY, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Overview

The primary objective of this chapter is to present the conclusions drawn from this study and to make recommendations for use of the data and for further research. First, a summary of the study's purpose and methodology will be presented. The major findings of the study will be presented in the second section. The third section will deal with limitations of the study. Conclusions and implications will be discussed in the fourth section. Recommendations for further research will be presented in the next, last section. Finally, the chapter will conclude with a section outlining the administrative and teacher training implications for adult basic education.

Purpose and Methodology

The major purpose of this study was to identify, describe and analyze the learning projects undertaken by a selected sample of adult basic education students in a one year period. A second goal was to provide the participating adult basic education district the findings of the study and make recommendations to the administrators and adult basic education teachers.

Tough's learning project approach is utilized in this study as the conceptual model and tool for facilitating the exploration of

learning activities. The learning project has been defined by Tough as a series of clearly related, deliberate learning episodes adding up to at least seven hours within a consecutive 6-month period. Learning is defined as an attempt to gain and retain fairly clear types of knowledge or skill or to produce some change in a person.

The instrument used to collect the learning behavior data was the revised version of the Tough interview schedule (see Appendix A). Probe sheets which listed subject matter areas and various methods of learning were used in order to assist respondents to recall their learning projects (see Appendix B). The interview schedule was used to explore the number and content of learning projects conducted by adult basic education students and the amount of time spent in these learning projects. It was used also to determine the source of day-to-day decisions for planning each learning project, credit or noncredit nature of each project, present status of each project (active, not very active, completed), and degree of satisfaction perceived by adult basic education students in their learning activity. The author added questions to the original interview schedule to determine the adult's reasons for choosing one of the planning categories (group, one-to-one, self-planned and material resources), obstacles which students encounter in their learning, and primary methods used in self-planned projects. The interview also involved obtaining information regarding personal characteristics of the learners.

The population for this study was the adult basic education students of the Des Moines (Iowa) Area Community College District who were enrolled in August, 1978. A sample of 46 was chosen by selecting every fifth person on the randomly arranged class lists of all students in regular ABE programs and learning centers. It should be noted that only those students who enrolled in ABE programs for the purpose of becoming more competent in reading, writing, computation, developing coping skills and/or to obtain a general education development diploma (G.E.D.) were included in the sample. Those who enrolled in other programs such as English as a second language or programs for handicapped were excluded.

The interviews were conducted by the author during the month of October, 1978. Questioning sessions were held at interviewee's homes, learning centers, or in classrooms after regular class hours. The data were analyzed by using the statistical package for the social sciences (SPSS) computer program.

Major Findings of the Study

Obstacles to learning

Cost was the most frequent obstacle to learning; it was reported as an obstacle by 52.2 percent of the respondents. The next obstacle in descending rank order was low grades in the past with 47.8 percent noting it was a problem. Both not meeting the requirements to begin a program and lack of confidence in ability were reported as obstacles by 45.7 percent of the interviewees.

Do not have enough energy was the least perceived obstacle with only 4.3 percent of the respondents noting it as a problem.

Extent of learning

This measure was used in order to estimate the extent of participation by adult basic education students in learning activity. It consisted of determining the number of learning projects undertaken and the number of hours spent on each learning project. It was found that ABE students conducted a mean of 6.59 or a median of 6.5 learning projects per person in the period of one year. The range of learning projects was from 3 to 12. The 46 respondents conducted a total of 303 projects. During the year preceding the interview, the respondents spent a mean of 393.91 hours or a median of 392.50 hours per person in conducting learning projects within a range of 80 to 1164 hours.

Sex, race, age, type of location, years of formal education, and funding status were of no significance in determining the number of projects conducted by adult basic education students. But the students differed significantly in the number of projects conducted on the basis of literacy level at the 0.02 level. In other words, respondents who were functioning at a higher literacy level, conducted a statistically significant greater number of projects.

The comparison of the mean number of hours respondents spent conducting learning projects and the above demographic variables revealed that adult basic education students differed significantly in the number of hours spent in their learning on the basis of

funding status at the 0.05 level. Nonstipended respondents spent a greater number of hours in their learning projects.

Content of learning projects

The content reported by the respondents for their learning projects was divided into seven categories derived by Johnstone and Rivera (1965). Approximately 24 percent of the learning projects were in family and home-related content areas. The second most popular subject matter was job-related, accounting for almost 21 percent of all projects conducted. Projects in the areas of personal improvement, adult basic education and recreation also were popular. Projects in the areas of public affairs and religion were less popular.

Major planners for learning projects

The learning projects in this study were classified based on the following planning categories: self, group, individual, material, and mixed. The learner himself or herself planned about 57 percent of all learning projects. The group as planner represented almost 17 percent; the individual as planner accounted for 18.5 percent of the projects. Four percent of the projects were planned by professionals indirectly through preprogrammed nonhuman materials. Finally, 3.6 percent were in the mixed category.

Self-planned projects

As it was mentioned above, the greatest amount of learning projects were in the self-planned category. There were 173 learning

projects carried out by 43 respondents out of a total of 303, in the self-planned category. The average number of self-planned learning projects per person in the period of one year was 3.8. The range of self-planned projects was from one to nine excluding those who had no self-planned projects. During the year preceding the interview, the respondents spent a mean of 192.91 hours per person in self-planned projects.

Sex, race, age, type of location, and funding status were of no significance in determining the proportion of hours respondents spent at self-directed learning for a one-year period.[1] However, students did differ significantly in the proportion of hours spent at self-planned learning on the basis of literacy level at the 0.001 level and years of formal education at the 0.01 level. Respondents who were functioning at higher literacy levels and who had more years of formal education spent more hours on self-planned learning.

Major planner choice and content of learning

The question of content area of learning and its relationship to planner's choice is a complex question. Blackburn (1967), Johnstone and Rivera (1965) and McCatty (1973) found that the planner's choice depended on the content of learning. The findings in this

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[1] For each respondent, the number of hours spent in self-planned learning was divided by the total number of hours spent on all his or her projects.

study support their conclusions. For example, the highest percentage of self-planned projects (86.7 percent) occurred in the public affairs area; the highest percentage of one-to-one planning (32.6 percent) occurred in the area of recreation and hobbies; and the highest percentage of group-planned (50 percent) occurred in the area of religion. Furthermore, recreation and hobbies, family and home related, and personal improvement were the content areas in which self-planned projects formed more than 50 percent of the total.

Reasons for choice of a planner

One objective of this study was to identify an adult's reason for choice of planning category. The selected four categories used in this section were self-planned, group planned, planned by utilizing an expert in a one-to-one relationship and material resource usage where the planning had been completed in the creation of the resource. From each category which had been recalled by a respondent, one learning project was randomly selected. Then the respondent was asked to indicate the reason(s) for choosing the planning mode he or she had selected for that learning project. In some cases, more than one reason was reported.

In self-planned learning projects, a desire for individualized subject matter was the most frequently noted reason. Financial limitations was the next most important reason for the choice of self-planned learning. The students considered self-planned learning to be more economical than other forms of planning category.

Capability of the instructor and availability of classroom and material was the most frequent reason for the choice of group category, while effectiveness of the method was reported as the most frequent reason for choice of one-to-one learning method.

Learning projects and credit

Most of the learning projects, about 70 percent, were noncredit in nature. Approximately 16 percent of the motivation to undertake learning projects was for obtaining certification and 13 percent for academic credit.

The content areas of learning projects were compared with their credit status to better understand motivation for learning. Not surprisingly, it was found that almost 83 percent of the motivation to undertake learning projects in the adult basic education content area was to obtain a high school equivalency diploma. Motivation for undertaking 34 projects in the job-related content area was to obtain certification. Generally, the largest percentage of projects in all content areas, other than adult basic education and job-related, were in the noncredit category.

The five types of planner categories also were compared with the credit status of each learning project. It was found that the great majority of self-planned projects (81 percent) were undertaken on a noncredit basis. Approximately one-half of the projects in one-to-one planned and group planned categories were conducted on a noncredit basis.

Degree of satisfaction with learning

Respondents described most of their learning projects by stating that they were somewhat satisfied (46 percent) or very satisfied (35 percent). They were not very satisfied with only about 19 percent of the projects.

Respondents generally reported that they were satisfied across all content areas, but particularly with the public affairs and job-related projects. Projects in adult basic education normally produced satisfaction, although the students in 14 projects reported not being very satisfied with their learning in this area.

Respondents also reported overall satisfaction across all the different planning modes. Of those projects in which a one-to-one planner choice was made, 41 percent indicated that they were very satisfied and 50 percent were somewhat satisfied. Of the 173 projects in the self-planned category, the great majority provided satisfying results, with only 21 percent reporting a feeling of not very satisfied. Thirteen projects (25 percent) in the group-planned category produced not very satisfied results.

Current status of learning projects

Approximately 33 percent of all learning projects were definitely active at the time of the interview, while 42 percent were completed and 25 percent were not very active. The definitely active category was used by a larger percentage of participants than any other category in the adult basic education content area. In contrast, almost 56 percent of job-related projects were completed.

In addition, the largest proportion of definitely active projects were those projects that students conducted by attending the learning centers. While 75 of the 173 self-planned projects were completed, it was identified that 31 percent of the projects in this category were not very active.

Major methods of learning for self-planned learning

Although the self-directed learner is autonomous in day-to-day planning and decision making regarding learning projects, he or she obtains help from a variety of human resources and material resources. In each of the self-planned projects, the learners were asked their major method of learning. More specifically, the learner was asked who or what provided most of the subject matter for the learner (people, material, radio or television, etc.). In 39 of the 173 self-planned projects, reading materials such as books, newspapers and magazines provided most of the subject matter; in 50 other self-planned projects reading was combined with one or two other methods. The second most common single method was conversation; in 15 projects, it was the single method and in 42 other projects, it shared with one or two other methods for providing material for the learning projects. Other single methods were: observation, learning from television and radio, and doing. Nonverbal communication methods (observation and doing) were reported as single methods in 19 projects, and shared with one or two other methods in 54 projects. Receiving instruction from television and radio was reported

as a single method in only seven projects; in 14 other projects it shared with one other resource.

Limitations of the Study

This study concerned itself with adults registered in adult basic education programs in the Des Moines Area Community College District in Iowa. The population was limited to those students who attended ABE programs for the purpose of developing coping skills or intended to obtain a general education development diploma (GED). Those who enrolled in other programs, such as English as a second language and programs for handicapped, were excluded. The results cannot be generalized beyond the limits of population that were used for the study.

Although the probing technique was used to obtain accurate data from the interviewees, it is likely that some of the learning projects were forgotten. Therefore, limitation of the data based on the memory of the interviewees should be noted.

The data of the study is also limited by only intentional learnings that were defined as a learning project. Therefore, the nondeliberate learning which was less than seven hours was eliminated.

A final limitation of this study was that it attempted to measure the quantity of learning, such as number of learning projects and number of hours the students spent in their learning projects. The quality of learning such as the importance of learning

and changes in student's skill, knowledge or attitude, have not been considered.

Conclusions and Implications

The findings support the major findings of related studies about the high extent of learning and the intensity of the self-directed learning mode. The respondents in this study spent a mean of 393.91 hours per person on learning projects of different types over a 12-month period, including 193 hours in projects which were self-planned in nature. The study also showed that when the adult conducted self-planned learning, his or her main reason was to adapt the learning material to specific needs or problems. This study also indicates that the students obtained a high degree of satisfaction when they maintain day-to-day responsibility for their learning. These findings certainly add to the body of knowledge about learning projects and self-directed learning and should help educators in their efforts to support self-directed learners.

Because a substantial part of the adult's learning is planned by the learner himself, it is suggested that fostering self-directed learning should be accepted as a major adult education goal. In that same regard, fostering the self-directed learning capacity of ABE students should become a central objective of functional literacy campaigns. Attention to the self-directed capacity then becomes important in terms of developing curriculum, instructional expertise, and developing learner skills in setting objectives for learning,

establishing procedures for conducting learning, and self-evaluation regarding what has been learned.

Actually, literacy programs will need to become an important first stage in "life long" learning. If adult basic education programs can encourage students to practice self-directed learning skills and to take a great deal of responsibility for their learning, it is suggested that students will be more likely to employ this strategy in the assimilation of all future knowledge and skills.

The results of this study have some implications for practitioners in adult basic education who are interested in using knowledge about self-planned learning in helping students in their learning and in designing educational programs.

1. Not only is the learning project interview schedule a useful approach for investigating adult learning, it could be a potentially useful approach and an effective planning tool for analyzing the learning goals of adults. Students in adult basic education programs often have problems in articulating their learning needs and preferred methods for their learning. Adult educators could gain insight about students' needs and learning styles by using the interview schedule to find out learning activities during the previous year. Therefore, the learning activities of the past could be used as a future guide to understanding needs and to capitalize on preferred learning modes.

2. Another implication related to the use of the interview schedule is in the process of effective counseling. The interview

schedule used to collect data about self-planned learning provides comprehensive knowledge about learning for the interviewer and the interviewee. The in-depth interview provides a way through which the adult educator could be a facilitator in assessing problem areas, suggesting resources, and perhaps introducing adult learners with the same interest to each other. In other words, the in-depth interview can be used as a need-assessment device for adult educators.

3. This study has shown that only a small percentage of the motivation to undertake learning (13 percent) was for credit. This result is very important to many program planners of adult learning. Course offerings do not need to provide the motivation of credit in the form of a diploma or certificate in order to be attractive to most of the learners. However, several interviewees indicated that they intended to go to educational institutions for obtaining degrees. Furthermore, most administrators of such institutions will not be aware of the fact that a particular student may have undertaken many self-planned learning projects. Such learning projects do not appear on the student's transcripts. Thus, questions about self-planned learning might provide useful information for counseling purposes, because many students who may appear on paper to be limited in learning or high school drop outs, may in fact not be learning beginners.

4. The findings regarding the preferred method of self-planned learning showed that reading and conversation and/or observation are

important means for transmitting knowledge and skill. Any improvement of the learner in those areas of skill may help in the ability to learn. In addition, adult educators may need to facilitate skill development in the use of other learning resources such as television, radio, and self-learning kits because preference for reading and conversation may inhibit material usage.

5. The primary obstacles to learning as perceived by the participants in this study were "cost" and "low grades in the past". Of course, the problem of cost should not be surprising since the majority of interviewees were of lower income and in several cases unskilled with no present employment. This points out the fact that even though a good portion of education is provided for free or at low cost, given the low income of these students, the cost still plays a determining role in the ability to pursue learning activities. The resolution of this problem depends on the set of values and priorities that a community or society associates with improving the skill and know-how of the lower income and unskilled individuals. It appears obvious that the society as a whole will benefit from such improvements, but the question of who should bear the major burden of the cost still rests with the society itself. If such education receives high priority, then the simplest approach would be the subsidization of these students to satisfy the objective. Given the importance of cost, it is the opinion of this writer that greater subsidization of adult basic education will greatly affect not only those who are already enrolled, but may also draw many more adults

into these programs.

Furthermore, dissemination of information about various available programs and oportunities at low or no cost is also of significance because lack of knowledge about many available educational opportunities and advantages often is a barrier. Adult educators working in the learning centers, in cooperation with the adult basic education planning committee, should initiate a strong campaign to educate the people in the community on the importance of available programs in the learning centers and how they can take advantage of those programs.

6. In adult basic education programs, the transference of actual grade school curricula to adult courses is common. Although this approach may appear to some to facilitate program organization and curriculum design, nevertheless adult basic education students frequently are equated with children and treated as such. Based on the findings of this study there should not be as much emphasis on grades and more consideration and attention should be given to individual needs, individualized instruction, and providing opportunities for self-directed learning.

7. The capability of the instructor was a very important reason in the learner's choice of methods and in some cases it is the determining element in persuading a student to conduct a learning project. Therefore, a second dimension can be added to the knowledge base regarding the selection of ABE teachers. In addition to choosing experts who can serve as facilitators it becomes necessary

to understand their capability because of the importance students attach to perceived capability and expertness.

Recommendations for Further Research

The following are suggested recommendations for further research:

1. Further research is needed on the learning projects of minority groups in Iowa to promote more insight into the learning efforts of different ethnic groups and what might be required in terms of instruction or institutional support.

2. Further studies also should be undertaken to closely examine the nature of the obstacles preventing minority groups from conducting learning projects and the ways in which members of these communities deal with such obstacles.

3. More extensive research using a multivariate analysis technique should be undertaken to understand and more precisely identify the effects of various demographic variables.

4. A formal reliability and validity study of the interview schedule should be undertaken (as explained in Chapter III).

5. The findings of this study do not directly relate to the efficacy of self-planned learning. Further research should be pursued in the following areas: What is the quality of learning undertaken in self-planned learning projects? How can it be assessed? What are the advantages and disadvantages of self-planned versus

institutionally planned learning?

6. Research should be undertaken toward identifying the learning environment that can contribute to the fostering of self-directed learning.

7. Research is needed to identify constructs relating to self-direction in learning for evaluation purposes in adult educational programs.

8. Research is needed to tie self-directed learning to a theoretical base which has the potential to explain and predict the phenomenon of self-directed learning.

Administration and Teacher Training--Implications for Des Moines Area Community College District

One of the general objectives of the present study was to provide the participating adult basic education district the results of the study and make recommendations for administrators and teachers regarding the adult basic education program. The following is a series of recommendations which are divided in two parts. Part one encompasses general recommendations for administrators, coordinators and teachers; the second part includes recommendations for the training of teachers for ABE programs.

General recommendations

1. A finding of the study was that ABE students, like other adult populations studied, are spending significant amounts of time in deliberate learning projects and those learning projects are

primarily self-planned, although the students showed a great deal of dependence on others for assistance in their learning projects. This finding has a significant implication for professional adult educators in terms of adult learning and adult education goals. Self-directed learning should be supported as an adult education goal and at the same time fostering self-directed learning ability should become a central objective of functional literacy campaigns. Adult basic education classes and learning centers should be organized so as to promote self-direction in adult learners. More emphasis should be on how the student should learn and on providing him/her with the skills needed to learn. As a result, the students may employ these skills throughout their entire lives to assimilate new knowledge which is necessary in a changing world. In a society with accelerating changes career and vocational training is not enough for the disadvantaged, low educational attainment group. In order to be able to adjust to the fluidity of the world, the adult learner should obtain life-long learning skills which enable him/her to direct his/her own learning. Rogers (1969) suggested that "the only man who is educated is the man who has learned how to learn; the man who has learned to adapt to change" (1969:104). Toffler (1970) argues that "Tomorrow's illiterate will not be the man who can't read but rather the man who has not adapted to life-long learning." It is suggested, therefore, that self-directed learners are more capable of adapting themselves to changes and adjusting to an accelerating world. Nolfi (1976) argues that in the past

education has primarily benefited the middle class and has functioned "to widen rather than narrow the gap between those who are well-off and those who are not so well off" (1976:3). If self-directed learning is developed and encouraged, people are more likely to have positive attitudes toward learning. Also, they can practice in learning activities with their modes of learning and become involved with a variety of subject matter.

2. Another finding of this study was that for self-planned learning projects, a desire for individualized subject matter was the most frequent planner choice. This finding has implications for learning center coordinators and supervisors. They should provide more individualized instructional materials, organize the learning environment in such a way that instructional materials are easily accessible and open different choices to the learner. Nevertheless, caution has to be made before adding opportunities for self-directed learning to the instructional process. The adult educators should assess precisely the difference between the goals of institutions and goals of self-directed learners. It is possible that both self-directed learning and institutionalized learning go on at the same time, without interfering with each other.

3. When ABE students conducted self-planned projects, they mostly used the methods of reading, conversation and/or observation. Using television and/or radio was not a very frequent method. It is recommended to the learning center's coordinators and supervisors that they provide information to the learners relating to all

learning resources such as radio, television, tape, etc. Possibly the ABE students do not use the above methods because they are not familiar with all learning resources available to them.

4. The concept of "learning project" which has been used in this study, might provide a framework for program design. Tough (1971) stated that "deliberate adult learning" occurs when adults engage in a connected series of "learning episodes" which form a "learning project." Thus, a program could be designed which is based on learning projects consisting of a number of simultaneous individual and group learning projects. Each project could be jointly planned by the individual learners and selected guides and influenced by the learner's initiative. The learners might use a set of various human and material resources such as teachers, friends and programmed instruction materials. Therefore, the skill of facilitators in program design is in utilizing the experiences of the adult learners as a resource. Therefore, the interview schedule becomes a useful and effective planning took for analyzing the learning goals of adults. By using the interview schedule effectively ABE teachers could gain insight into students' needs, background, learning styles and determine the material content which best meet the students' needs. Experience in working with adult learners will teach ABE staff to stimulate and motivate adults to react positively to self-directed learning projects. The interview schedule also can provide a way through which a teacher can act as a facilitator in recognizing problem areas, providing resources and

introducing students with the same area of interest to each other.

5. A high proportion of learning projects conducted by ABE students were job-related in content. Also, the students were most satisfied from the learning achieved in the job-related projects. These findings suggest, for example, that ABE students might be positively motivated to learn reading skills when the content of the materials relate to job needs and career choices. Among various literacy programs in this author's view, one strategy--the language experience approach (LEA) as suggested by Newton (1977)--seems to have greater merit than others in the light of self-directed learning. More so than other literacy development approaches, the LEA considers the experiential background of the learner, using his or her vocabulary, concepts and statements as the basis for literacy instruction materials. The language experience approach considers the learner as the central part in the ongoing development activities, as work-related verbal material becomes the "text" for learning. Newton (1977) indicated that a high degree of individualization may be provided in language experience approach based programs. In addition, he said, important results can be attained when all the language arts--listening, speaking, reading, writing--are correlated as mutually supportive elements in the LEA. The adult learner, with personal and job-related experiences, has the opportunity to express opinions, beliefs, and feelings orally and in writing. All of these activities which accumulated from the adult's

concrete life constitute the essence of the Language Experience Approach curriculum.

Recommendations for teacher training

The capability of the instructor is a very important factor in the learner's choice of method. In many cases it is the determining factor in encouraging a student to conduct a learning project. This finding has implications for teacher training in adult basic education. The fact is that many adult basic education teachers are or have been teachers of children and they do not have enough training and experience in teaching adult basic education students. Usually they decide what ABE students need to learn, and prescribe ways for students to satisfy these needs. The teachers have little awareness of methods to help the individual learner assess his/her own needs. Several adult educators such as Houle (1961), Tough (1971), and Knowles (1973) proposed that in adult education a high degree of responsibility for learning should be taken by the learner and the entire system should be built on the concept of self-directed learning.

Regarding ABE teachers, training and workshop programs should be conducted a colleges and universities and state certification requirements should be revised. In the workshops, the teacher should be trained to change his/her role from the dominant role of the traditional teacher to a facilitator role. A facilitator begins from where the learners are and helps them to go where they want to go. To achieve certification, ABE teachers should be

required to demonstrate the ability to help the learner assess personal need, the ability to create instructional material based on the learner's needs, the ability to adjust curricula to individual student needs, the ability to foster learner initiative, and the ability to encourage ABE students to take a great deal of responsibility for their own learning. The following topics should be included in the teacher training workshop on self-directed learning:

Identifying self-directed learning Self-directed learning can be easily identified in the behavior of the individual learner. It involves choice about what is needed to be learned, choice about meeting those needs, and choice about how to evaluate what is learned. In self-directed learning the learner assumes the primary responsibility for the day-to-day planning, initiating and conducting of learning projects. In other words, in self-directed learning, the learner is responsible for planning subject matter and learning activities from one session to the next session. In addition as Tough (1971) explained, self-directed learning occurs when the individual learner engages in a series of related "learning episodes" which form a "learning project." The criteria for a "learning episode" are as follows:

1. The learning should be intentional rather than incidental.
2. The learner should engage in the learning activity in order to gain a certain knowledge and skill "that is fairly clear and definite."

3. The learner should gain and retain knowledge or skills for a definite period of time.
4. "More than half" of the motivation for engaging in the learning activity must come from the learner.

The interview schedule is an appropriate means to identify the self-directed learning activity.

Development and facilitating self-directed learning The importance of self-directed learning and development of such direction is a controversial issue in educational literature. The argument is that the formal educational institution often controls the learning process, makes the individual dependent on the authority of institutions, and alienates people from self-directed learning. Illich (1970) in this regard proposed "deschooling society" and advocated dependency on self-motivated learning instead of "continuing to funnel all educational programs through the teachers" (1970:104). Freire (1970) cricitized traditional education which is biased on what he called "banking system of education." Unlike Illich, he does not look at the educational institution as a primary problem. He goes beyond self-direction to transforming the whole structure of society in order to create a society within which a climate can be created that allows for self-direction. Therefore, he suggests that education is no longer transformation of knowledge, but on the contrary, an act of knowing. Other writers, like Hargreaves (1974) hold that formal educational institutions can be organized so as to facilitate self-direction in individual learners.

In this section a list of ways to facilitate self-directed learning has been presented. This list has been synthesized from different resources, especially Rogers (1969), Maslow (1970), Freire (1970), Biggs (1973), Knowles (1973), Hargreave (1974), Srinivason (1977), and Skager (1978).

1. Utilizing learner centered approach. Similar to the "client centered approach" developed by Rogers (1969), self-directed learning starts with an assumption that the individual has the capacity to re-order his/her own life. Rogers believed that man has natural potential for learning. He defined learning as a process which is internal and totally controlled by the learner, a process which the learner engages himself in through interaction with his (perceived) environment. Rogers argues that in the educational system as a whole "a way must be found to develop a climate in the system in which the focus is not upon teaching, but on the facilitation of self-directed learning. Only thus can we develop the creative individual who is open to all of his experience, aware of it and accepting it, and continually in the process of changing" (1969:304). Therefore, the primary function of the teacher is to create such opportunities that engage the individual learner as a whole person and envourage his/her autonomous, active contribution.

2. Encouraging colleague learning. The teacher or facilitator accepts the learner on a colleague basis, and maintains this climate throughout the learning experience. Freire (1970) suggests that

the breaking down of hierarchy in teaching-learning situations in education is a step for dissolving the hierarchy in society. He proposed that this dissolution can be achieved by changing the role of teacher from "authority" to "facilitator" and changing the traditional relationship between teachers and students to a "horizontal relationship" with free dialogue. Obviously, the authority dominated learning situation and development of self-directed learning are not compatible. Hargreave (1974) in explanation of the reformist conception of the teaching role, gives a clear analysis of democratic relationships betwen teachers and learners.

3. Facilitating positive self-concept. In self-directed learning, the self-concept is an important factor which influences the choice of a course of action. The individual must have a positive view about the self as a learner in order to be able to deal successfully with problems and tasks. Without a positive self-concept, individuals may not be willing to try to learn, especially on an independent basis. Maslow (1970) explains that the growth-motivated individual solves his/her own problem by self-searching, rather than by looking outside direction. He further suggests that when an individual becomes capable of perceiving himself in new ways, he can possibly choose a better way of life. To him, the positive action is an expression of positive perception and feeling about self. Thus, the change is most effective when it starts with the inner person and develops the more positive self-concept. Biggs (1973) uses the term "appropriate self-concept," which refers to positive

view of self as an "entity worthy of improvement." Knowles (1973), finding support for his androgogical theory in psychological research (see Chapter II in this study), points out that as a person grows his self-concept moves from dependency to self-directedness. He further says that "the point at which an individual achieves a self-concept of essential self-direction is the point at which he psychologically becomes adult. A very critical thing happens when this occurs: the individual develops a deep psychological need to be perceived by others as being self-directing. Thus, when he finds himself in a situation in which he is not allowed to be self-directing, he experiences a tension between that situation and his self-concept. His reaction is bound to be tainted with resentment and resistance" (1973:45). The adult educators should be aware that an adult may bring many skills of self-directed learning to the learning experience which should be fostered and developed.

4. In certain situations, flexibility in time, place, mode, and content of learning is needed. The learner will have the opportunity to make choices about where he is to learn, how to learn and follow his or her own area of need or interest. These are essential elements in facilitating self-direction in learning. The above dimension could be considered as the criteria to assess the degree to which a program fosters self-direction in learning.

5. Encouraging learner to accept the role of his learning evaluator. Rogers (1969) proposed that the learner has to learn to establish his own criteria of evaluation. These criteria could be

established by means of a contract system. In this system, the learner sets up his own goals first, then the learning activities which should be taken to achieve the goals need to be set, and finally the value to be placed on the achievement of those goals should be determined. Skager (1978) pointed out that the question of how the learners might be assisted to accept the role of their evaluators is perhaps the critical question in conceptualizing the self-directed learning materials. Evaluation is inherently an authoritative activity, and authority must somehow be vested in the learner. A delicate balance must be found.

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APPENDIX A: INTERVIEW SCHEDULE AND PROBE SHEETS

Interview Schedule

ID _____

Sex _____ Race _____ Age _____

Type of Educational classes _____ Instructional Level _____

Introduction: Introduce yourself and establish a relaxed, trusting atmosphere before beginning the interview. It is especially important for the interviewee to understand that (1) you are indeed conducting research for your doctoral dissertation and you are not salesman in disquise; (2) information that you are requesting will be kept confidential; (3) participants will not be identified by name. Explain the purpose of the interview by saying:

> (My research is about people and the sorts of things they learn. Everyone learns, but different people learn different things -- and in different ways. I am interested in talking with you to find out the things you have tried to learn during the past year and your potential learning needs so that an adult education program might be better prepared to help the people of Iowa.)
>
> (Let's start by explaining the procedure we will follow. I will read some statements. Whenever you are asked to read, I will have the copy of the material you have. If you have a question or you can not read some of the statements, please ask as we go along.)

(How many years of formal education do you have _____)

(Are you employed at the present time _____)

(What is your main occupation _____)

---

1. Inhibitors to learning

(Many things stop people from taking a course of study, learning skill, or following a topic of interest. Which of the following do you feel are important in keeping you away from learning what you want to learn? I will read them to you and you select as many as you would like by saying "yes" or "no")

____ Costs

____ Not enough time/other responsibility

____ Amount of time required to complete a course or program

____ No information about where I can get what I want

____ Low grades in the past

____ I do not have enough energy

____ I do not enjoy studying

____ No transportation

____ I do not meet requirements to begin a program

____ I do not know what I would like to learn

____ Friends or family do not like the idea of my taking courses

____ No place to study or practice

____ I am not confident of my ability

____ Other

---

2. List Learning Projects

A.

(Now I am interested in listing the things you have tried to learn during the twelve months beginning with this month and going back twelve months. Then, I have a few questions I would like to ask about each learning effort. It usually takes a person 15 to 20 minutes to think of learning efforts. When I say "learn" I do not just mean learning the sorts of things that people learn in schools. I mean any sort of a deliberate attempt at all to learn something, or to learn how to do something. Perhaps you tried to get some information or knowledge -- or to gain new skills or improve your old ones -- or to increase your understanding. Can you think of any efforts like this that you have made during the past twelve months?) Pause

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

B. Probes

a. General Probes:

(1) - (Try to think back over all of the past twelve months -- right back to the late summer of 1977. I am interested in a deliberate effort you made to learn anything at all. Anything at all can be included, regardless of whether it was easy or hard, big or little, important or unimportant, serious or fun.)

(2) - (It doesn't matter when you started to learn, as long as you spent at least a few hours at it sometime since last year.)

(3) - (I want to get as complete a list as possible, because I think that people make far more attempts to learn than anyone realizes. We can include any sort of information -- knowledge -- skill -- or understanding at all that you have tried to gain -- just as long as you spent at least a few hours at it, sometime during the past 12 months. Can you recall anything?)

Pause

_____

_____

_____

_____

b. Chronological probe:

Suggest that they think of highlights in their life during the past year which may help them recall learning activities - moving, new baby, building a house, new job, etc.

c. Method probe:

(I am going to ask you to read loudly from this sheet. On this sheet I have listed some different ways people learn. Please take your time. This information may help you to remember. It is not easy to remember, but this list of things might help.

Hand interviewee Sheet No. 1

_____

_____

_____

_____

_____

d. Category probe:

(Now I have a list of different things that others have tried to learn. The list may remind you of still other things that you have tried to learn during these past twelve months. Take as long as you want to read each word and to think whether you have tried to learn something similar.)

Hand interviewee Sheet No. 2

_____

_____

_____

e. Probe ideas:

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

(2) If interviewee uses something from probe sheets, try to get him/her to put it in his or her own words.

(3) Try to be precise about just what the person was trying to learn . . . Use 10-15 words to describe the learning project.

C. Criterion Questions:

(If doubtful about learning projects listed, check criteria: 1) deliberate learning 2) retention for two days 3) time spent on learning at least seven hours within six months period. The following questions may be used:

(1) In this activity, was your desire to gain certain knowledge and skill and retain it for at least two days stronger than all your other purposes put together? - or - during this learning project, how long did you want to retain what you were learning?

(2) Within some six-month period during the past year, did you spend at least seven hours in learning? This seven hours may include the time you spent for planning your learning, traveling for your learning and the learning itself. Within some six-month period, during the past year, did you spend at least five hours <u>at all the learning itself</u>?

D. (O.K. Thank you. That gives us a fairly complete list. If you think of something else you have learned, though, please tell me at any time.)

---

3. Content of Learning Project

Based on the discussion in the "List Learning Project" part of the interview, if possible, record the content of the learning projects and classify according to the scheme below if that is not possible probe by reading content probe list.

___ Job related skills
___ Recreation and hobbies
___ General education
___ Family and home related
___ Personal improvement
___ Religion
___ Public affairs and citizenships
___ Agriculture
___ Adult basic education
___ Other

---

4. Time

A. (Now, I would like to ask you a few questions about each of your learning efforts. The questions are the same for each, so after the first one, it will move along quite quickly.)

B. (Let's begin with the first one on the list. It was _____) We want to make an estimate of the hours.

you spent in learning on this topic. There are three ways in which you may have spent some time on learning. First, you may have spent time deciding about the learning and planning your learning.

Second, you may have had to do some traveling for your learning.

Thirdly, during much of the time your main motivation may have been to gain knowledge or skill related to the topic. This sheet will explain the three ways you might have spent on this learning effort.)

Hand interviewee Sheet No. 3

When he/she reads it say:

(Now, tell me how many hours you spent for deciding and planning?) Pause _____

(How many hours you spend for traveling and arranging?) Pause _____

(How many hours you spent for actual learning? That is a time your main purpose was to gain knowledge and skill or understand something.)

Pause _____

Record the number of hours in Sheet No. 3

When interviewee has indicated the number of hours in each of parts 1, 2, and 3, mentally sum them and say: (Let's see, that makes a total of _____ hours for the learning effort. Does that sound about right?) If the number of hours is less than 14 altogether or less than 10 for the actual learning ask:

(Within a 6-month period in the past year, did you spend at least 7 hours at this altogether? Did you spend at least 5 hours at the learning -- the third item on your sheet?)

If the answer is "no" to either of these questions, the project is, by definition, disqualified as a learning project.

---

5. Credit or Noncredit

(In this learning effort, was obtaining academic credit any part of your motivation? That is, did you hope to use any of your learning efforts for academic credit -- toward some degree like secondary school diploma or grade achievement?) Pause

(Was any of your learning toward passing a test or examination toward some license or driving test, or toward some requirement or examination related to a job?)

Pause and record it. _____

---

6. Present Status of Learning Project

(Which of these three answers best describes this particular learning effort at the present time?)

A. Definitely active - That is, you are definitely continuing this learning effort right now, and you are spending about as much time as ever at it.

B. Not very active -- that is you dropped it or you have set it aside for awhile.

C. Completed -- that is, you have completed it.)

---

7. Degree of Satisfaction

(Please think for a moment how satisfied you are with your learning)

(Would you say you are:

A. Very satisfied

B. Somewhat satisfied

C. Not very satisfied

---

8. Day-to-day Planner

(Another question I would like to ask about your first learning effort is who or what was the director or leader of your learning? That is, who or what made the decisions about what you would learn -- and how you would learn -- whenever you spent sometime trying to learn? Read this sheet carefully and then we will talk about each learning effort in terms of who planned it.)

Hand interviewee Sheet No. 4

when the adult has read it through, ask:
(who or what actually planned your learning?)

9. Major Method of Learning for Self-Planned Learning

If the interviewee chooses the self-planned learning say:

(I would like to find out the method you have used for this learning activity. When we learn, we do something, we may read, talk with someone, practice, observe, watch T.V. or listen to the radio, or combination of those methods.)

(Tell me what you did when you learned _____

_____)

Record the detail for each self-planned project and categorize them later.

Repeat questions 3-9 for each learning project, you should remember that the question 9 will be asked, if the learning is self-planned.

If he/she does not seem to understand, or if you feel doubtful about the response, ask (who the particular director or leader was.) If you anticipate difficulty say:

(I am interested in who was the primary learning leader during the past 12 months.)

If the interviewee chooses group-planned, say:

(Did this group have an instructor or leader, or speaker assigned to that group -- or was it just a group of equals meeting outside any organized framework that each member of the group has an equal opportunity in planning the day-to-day learning activities.)

Record as: Instructor or Peer. If a peer group, ask the interviewee to briefly describe the group in two or three sentences.

If the intereviewee chooses the one-to-one learning on the Sheet No. 4 say:

(Was he/she paid to help you, or because it was part of his job responsibility, was he/she a friend or relative; brother, sister, husband, neighbor, co-worker, librarian, store clerk)

Record as: Professional or Friend

---

10. Reasons for choice of self-planned learning

When interviewee has gone through the complete list of learning projects, designating the planner of each, for one learning project in planner category choose at random one learning project which is self-planned and say:

(For learning _____ you have indicated that you elected to have it planned by yourself. Why did you choose this planner? Why did you take that choice rather choosing a planner in one other categories?)

Show the 4 types on the Sheet No. 4.

_____

_____

_____

11. Reasons for choice of group-planned learning

Choose at random one learning project which is group planned and say:

(For learning _____ you have indicated that you elected to have it planned by a group. What were your reasons for choosing this planner?)

_____

_____

_____

12. Reasons for choice of one-to-one planned learning.

Choose at random one learning project which is one-to-one planned learning and say:
(For learning _____ you have indicated that you elected to have it planned by an individual, why did you choose this planner? Why did you take that choice rather than choosing a planner in one of the other categories?)

_____

_____

_____

13. Reasons for choice of material planned learning.

Choose at random one learning project which is material planned learning (if any) and say:
(For learning _____ you have indicated that you elected to have it planned by material resources, why did you choose this planner? Why did you take that choice rather than choosing a planner in one of the other categories?)

_____

_____

_____

Note: If the respondent finds difficulty in recalling reasons, some or all of the following questions can be used as probes:

(Was there anything about this method of participation that influenced your decision?)

(Was there anything about this particular situation that made you participate in this way?)

(Did cost influence your choice?)

(Did availability influence your choice?)

(Did the subject matter influence your choice?)

(Did your friends or any other persons help you to come to your decisions?)

Record the detail for each project and categorize the reasons later.

That completes the interview. Thank you very much for your time and cooperation. I think that your efforts will help to make education more meaningful in the lives of many adults.

ID _____

Learning Project # ( ) _____

3. Content _____

4. No. of hours to decide _____ No. of hours to travel _____ No. of hours to learn _____ Total No. Hours _____ (Criteria check _____)

5. Toward academic credit _____ Toward certification _____ Non-credit _____

6. Definitely active _____ Not very active _____ Completed _____

7. Very satisfied _____ Somewhat satisfied _____Not very satisfied _____

8. Planner _____

9. Method _____

APPENDIX B: PROBE SHEETS

Some of the Ways that Adults Learn

Can you recall any times you tried to learn something by ...

_____reading a book, pamphlet, 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, teacher, or financial or tax advisor?

_____attending a conference, discussion group, a weekend meeting, or other group meeting?

_____asking questions of your relatives, neighbors, or friends?

_____enrolling in a correspondence or TV course, or through tape recording?

_____taking private lessons?

_____asking your teacher in Adult Education classes or learning centers, case worker, social worker, your husband, or wife, your father, mother, etc?

Have you learned in a...

_____church or synagogue?

_____Adult Education class, or school?

_____community organization?

_____government program?

_____an exhibition, museum, library?

Some Things People Learn

People learn things for . . .

Occupation, Vocational and Professional Competence

This includes: Basic and Literacy education
High school equivalency--regular school subjects
Trade, business or vocational subjects such as typing or shorthand, practical nursing, etc.
New worker's preparation for entry into labor market
Retraining for a shift in occupation

Personal Development

This includes: Personality development
Physical fitness
Anything related to mental and physical health
Driving lessons

Family Competence

This includes: Role as parent, wife, homemaker, such as infant or child care, family planning, family relations, money management, etc.

Civic Responsibilities

This includes: Voting and politics
Current events
Community government
Civil defense
Community development

Self-fulfillment

This includes: Arts and crafts
Hobbies
Recreation
Music, arts, dance, theatre

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

2. Traveling and Arranging

Some of your time might have been spent

____ traveling to a meeting or library, finding the right book or persons

____ arranging appropriate conditions for learning

3. Learning

During some of the time, your main purpose to gain certain knowledge, skill or understanding.

That is, you spent time reading, listening, observing, discussing, 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.

Of course, you cannot remember exactly how many hours, so just give your best guess. If you wish, just choose the closest number from the following list:

1 3 6 10 20 40 50 70 90 100 120 150 180 or more

Deciding How to Learn

1. Group-planned Learning

Letting the group (or its leader or instructor) decide what and how you learn during each session.

Examples might be lectures, workshops, study groups, small informal groups, or conferences.

2. One-to-one Learning

One person helps the learner in a one-to-one situation. That is, one helper (or instructor, teacher, experts, or friend) and one learner interacting usually face-to-face, although it could be by telephone or by correspondence.

3. Material Resource Learning

Some material resource...a programmed instruction book, a set of tape recordings, or a series of TV programs are used. The learner follows the programs or materials and they tell him what to do next.

4. Self-planned Learning

The learner himself or herself 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 sequence.

5. Mixed

Where the responsibility for planning does not reside primarily in any of the four above categories. The planning is divided between two or more categories.

Probe List
Content of Learning Projects

JOB-RELATED:

Any learning related to your job; anything that you learned on the job. E. G. Any training, anything that your boss or another worker taught you or told you how to do something.

Any trade or business skill, such as... (give e. g. that is related to the interviewee)

RECREATION AND HOBBIES:

Athletics and sports, like football, baseball, basketball, swimming, fishing, snowmobiling

Music, singing, playing a musical instrument, dancing

Art, drawing, painting

Crafts, like straw-weaving, wood-crafting, knitting

Collecting things, like stamps, coins, rocks, shells

Photography

FAMILY AND HOME-RELATED:

Building and fixing a house, carpentry, plumbing, cabinet making, masonry.

Housekeeping skills, like sewing, cooking, foods

Making your house look nice, interior decorating

Taking care of children, child clinic

How to be a better mother/father

School, behavior of children

Family planning clinic

Court and law

Money: banking, savings, insurance, money handling, mortgage, inheriting money, property, stocks, paying taxes

Gardening: planting vegetables, trees and flowers

Car: driving and fixing

PERSONAL IMPROVEMENT:

Sickness, medicines, health

Dieting, watching your weight

Exercise, building muscles

Clothes, how to get along with men/women

Personal cleanliness

Leadership, general education classes (ther than A-B-E classes)

RELIGION:

Church

Bible study

Prayer meetings

Choir practice

Leading a church activity

PUBLIC AFFAIRS AND CITIZENSHIPS:

Public and political things happening in the U. S.

Voting and enumeration

Community problems

ADULT BASIC EDUCATION:

All adult basic education courses

APPENDIX C: LEARNING PROJECT DATA SHEETS

Learning Project Data Sheet

I.D. Number _____ 1-2

Card Number _____ 3

Sex: _____ 1 - Male
_____ 2 - Female 4

Race: _____ 1 - Caucasian
_____ 2 - Negroid 5

Age: _____

_____ 1. 15-19
_____ 2. 20-24
_____ 3. 25-29
_____ 4. 30-34
_____ 5. 35-39
_____ 6. 40-44
_____ 7. 45-49
_____ 8. 50-54
_____ 9. 55-59
_____ 10. 60-65
_____ 11. 66 plus 6-7

Type of Educational Classes: _____ 1 - Traditional ABE classes
_____ 2 - Non-traditional ABE programs (Learning Center) 8

Current Instructional Level _____ 1 - Level I (Grade level 0-8)
_____ 2 - Level II (Grade level 9-12) 9

Years of Formal Education _____ years 10-11

Present Job _____ 1 - Employed
_____ 2 - Unemployed
_____ 3 - Retired
_____ 4 - Homemaker 12

Main Occupation: _____

_____ 1 - Clerical, sales, technicians
_____ 2 - Skilled manual employee
_____ 3 - Machine operator/semi-skilled
_____ 4 - Unskilled
_____ 5 - Homemaker
_____ 6 - Other 13

1. Inhibitors to Learning

_____	1 - Cost	14
_____	2 - Not enough time/other responsibility	15
_____	3 - Amount of time required to complete a course or program	16
_____	4 - No information about where I can get what I want	17
_____	5 - Low grades in the past	18
_____	6 - I do not have enough energy	19
_____	7 - I do not enjoy studying	20
_____	8 - No transportation	21
_____	9 - I do not meet requirements to begin a program	22
_____	10 - I don't know what I would like to learn	23
_____	11 - Friends or family do not like the idea of my taking courses	24
_____	12 - No place to study or practice	25
_____	13 - I am not confident of my ability	26
_____	14 - Other	27

1 - Yes
2 - No

2. Learning project list

_____	_____	
_____	_____	
_____	_____	
_____	_____	
_____	_____	
_____	_____	
_____	_____	
_____	_____	

Learning Project Number _____ 28-29

3. Content of Learning Project

_____

_____

_____ 1 - Job related
_____ 2 - Recreation and hobbies
_____ 3 - General education
_____ 4 - Family and home related
_____ 5 - Personal improvement
_____ 6 - Religion
_____ 7 - Public affairs and citizenships
_____ 8 - Agriculture
_____ 9 - Adult basic education
_____10 - Other 30-31

4. Estimated Number of hours/project

_____

_____

A.	Time deciding and planning	_____ hours	32-34
B.	Time traveling and arranging	_____ hours	35-37
C.	Actual learning	_____ hours	38-40
D.	Total	_____ hours	41-43

5. Credit: _____

_____ 1 - Toward academic credit
_____ 2 - Toward certification
_____ 3 - Non-credit 44

6. Present status:

_____ 1 - Definitely active
_____ 2 - Not very active
_____ 3 - Completed 45

7. Degree of satisfaction:

_____ 1 - Very satisfied
_____ 2 - Somewhat satisfied
_____ 3 - Not very satisfied

46

8. Day-to-day Planner:

_____

_____

_____ Group planned	
_____ Instructor	_____ 1 - Group Leader
_____ Peer	_____ 2 - Peer
_____ One-to-one planned	_____ 3 - Individual professional
_____ Professional	
_____ Friend	_____ 4 - Individual friend
_____ Material	_____ 5 - Material
_____ Self-planned	_____ 6 - Self
_____ Mixed	_____ 7 - Mixed

47

9. Major Method of Learning for Self-Planned Learning

One Method

1. Reading
2. Conversation
3. Observation
4. TV and Radio
5. Doing
6. Other

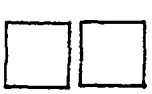
Two Methods

7. Reading and conversation
8. Observation and doing
9. Reading and doing
10. Reading and TV, and/or radio
11. Observation and conversation
12. TV, and/or radio and doing
13. Other

Three Methods

14. Conversation, observation and doing
15. Reading, conversation and doing
16. Reading, observation and conversation
17. Other

48-49



10. Reasons for Choice of Self-Planned Learning

1.	Desire for self-planned learning	17
2.	Financial limitations	18
3.	Most convenient	19
4.	Ease of subject	20
5.	Evidence of ability to learn	21
6.	Outside planner not available	22
7.	Flexibility of the time	23
8.	Learning inappropriate for outside planner	24
9.	Urgency to learn	25

11. Reasons for Choice of Group-planned Learning

1.	Availability of classroom and material	26
2.	Capacity of instructor	27
3.	Efficiency of group method	28
4.	Group attraction	29
5.	Employer pressure	30
6.	Financial economy	31
7.	Pressure by an individual	32

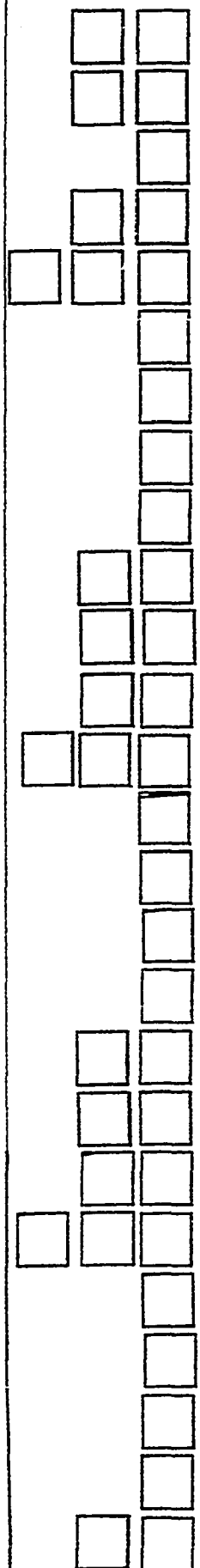
12. Reasons for Choice of One-to-one Learning

1. Efficiency of method 33
2. Availability of teacher and material 34
3. Flexibility of time 35
4. Subject matter was appropriate for this kind of planner 36
5. Capacity of instructor 37
6. Employer pressure 38
7. Pressure by an individual 39

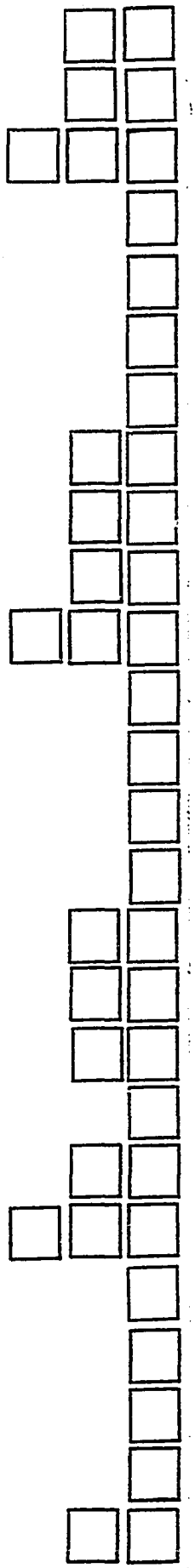
13. Reasons for Choice of Material-planned Learning

1. The simplicity of plan 40
2. Availability of materials 41
3. Flexibility of time 42
4. Financial economy 43

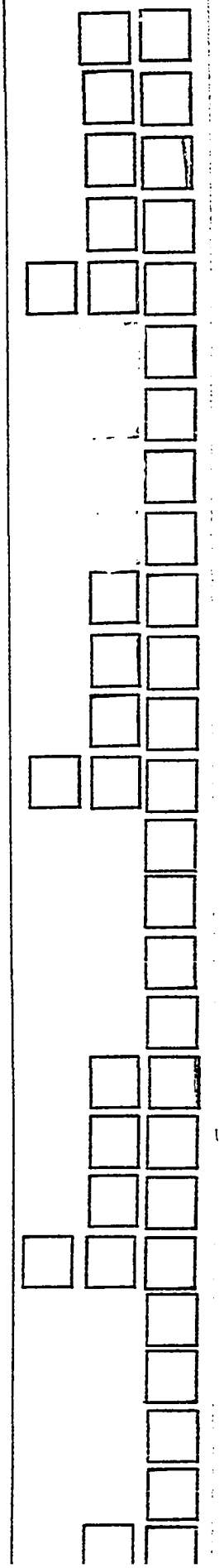
Start New Card	
I.D. _____	1-2
Project #7	3-4
Card #3	5
3 - Content	6-7
4 - Total Hours	8-10
5 - Credit	11
6 - Status	12
7 - Satisfy	13
8 - Planner	14
9 - Method	15-16
Project #8	17-18
3 - Content	19-20
4 - Total Hours	21-23
5 - Credit	24
6 - Status	25
7 - Satisfy	26
8 - Planner	27
9 - Method	28-29
Project #9	30-31
3 - Content	32-33
4 - Total Hours	34-36
5 - Credit	37
6 - Status	38
7 - Satisfy	39
8 - Planner	40
9 - Method	41-42



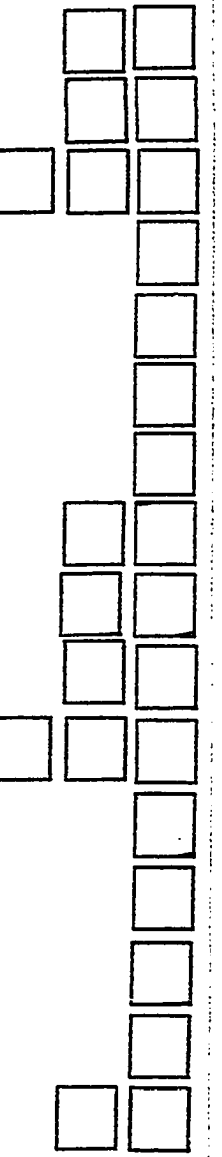
Project #10	43-44
3 - Content	45-46
4 - Total Hours	47-49
5 - Credit	50
6 - Status	51
7 - Satisfy	52
8 - Planner	53
9 - Method	54-55
Project #11	56-57
3 - Content	58-59
4 - Total Hours	60-62
5 - Credit	63
6 - Status	64
7 - Satisfy	65
8 - Planner	66
9 - Method	67-68
Start New Card	
I.D. _____	1-2
Project #12	3-4
Card #4	5
3 - Content	6-7
4 - Total Hours	8-10
5 - Credit	11
6 - Status	12
7 - Satisfy	13
8 - Planner	14
9 - Method	15-16



Start New Card	
I.D.	1-2
Project #2	3-4
Card #2	5
3 - Content	6-7
4 - Total hours	8-10
5 - Credit	11
6 - Status	12
7 - Satisfy	13
8 - Planner	14
9 - Method	15-16
Project #3	17-18
3 - Content	19-20
4 - Total hours	21-23
5 - Credit	24
6 - Status	25
7 - Satisfy	26
8 - Planner	27
9 - Method	28-29
Project #4	30-31
3 - Content	32-33
4- Total hours	34-36
5 - Credit	37
6 - Status	38
7 - Satisfy	39
8 - Planner	40
9 - Method	41-42



Project #5	43-44
3 - Content	45-46
4 - Total hours	47-49
5 - Credit	50
6 - Status	51
7 - Satisfy	52
8 - Planner	53
9 - Method	54-55
Project #6	56-57
3 - Content	58-59
4 - Total hours	60-62
5 - Credit	63
6 - Status	64
7 - Satisfy	65
8 - Planner	66
9 - Method	67-68



APPENDIX D: COMPARISON DATA ON LEARNING PROJECTS

Table D-1. A comparison of summary statistics from six research studies

Data description	Johnson (GED grads)	Coolican[a] (Mothers)	Hiemstra (Older adults)	Umoron (Selected socio-economic groups)	Field (Jamaican adults)	Baghi (Adult basic education students)
	N = 40	N = 48	N = 256[b]	N = 60	N = 86	N = 46
Number of learning projects conducted during last 12 months:						
Mean	14.4[c]	4.2	2.2	4.7	4.2	6.59
Median	13.0[c]	4.4	3.0	4.0	4.0	6.5
Range	6-12	1-9	1-9	2-15	1-9	3-12
Percent of participation						
	100%	100%	83.5%	60%	100%	100%
Number of hours spent in learning projects:						
Mean	887[c]	244	324.56	654.5	604.3	393.91
Median	771[c]	160	237.43	455.0	500.0	392.50
Range	330-2405	24-1012	12-2300	58-2250	44-2120	80-1164
Current status of project:						
Active	52%	73%	75%	87.80%	74.2%	33%
Not very active	23%	7%	25%	12.20%	18.1%	25%
Completed	25%	20%			9.3%	42%

Learning for credit						
Credit	23%	2%	4%	--[d]	32.1%	30%
Noncredit	77%	98%	96%		67.9%	70%
Planner type						
Self-planned	60%	67%	56%	40.20%	20%	57%
Group-planned	23%	16%	20%	16.03%	55%	17%
One-to-one	14%	11%	10%	32.75%	24%	18%
Resource-planned	3%	5%	4%	10.80%	1%	4%
Mixed	--	--	10%	--	--	4%
Subject matter areas studied:						
Vocational	11%	7%	16%	24.3%	26.6%	21%
Personal improvement	--	11%	20%	19.9%	1.6%	16%
Family and home related	23%	46%		22.9%	12.9%	24%
Public affairs	9%	8%	9%	21.9%	2.7%	5%

[a]Data exclude learning projects of less than seven hours.

[b]Table based on 214 individuals (42 individuals chose not to provide information relative to learning projects).

[c]Data computed by Coolican (1974).

[d]Sections where no data are reported indicate that data were not available.

Table D-1. (continued)

Data description	Johnson (GED grads)	Coolican (Mothers)	Hiemstra (Older adults)	Umoron (Selected socio-economic groups)	Field (Jamaican adults)	Baghi (Adult basic education students)
	N = 40	N = 48	N = 256	N = 60	N = 86	N = 46
Subject matter areas studied: (continued)						
Recreation and hobbies		18%	55%	11.0%	11.0%	14%
Religion	57%	3%		--	17.9%	4%
General education		6%	--	--	25.5[e]	16%[e]
Major method of learning by order of use						
	Practice Reading Discussion Listening Observation Viewing Other		--	--	Practicing Listening Reading Watching Conversation Problem solving	Reading Conversation Observation Television and radio Doing Other

[e]This number includes adult basic education.

APPENDIX E: DATA RELATED TO ANALYSIS OF SAMPLE

Table E-1. Cross tabulation comparison of sex with major demographic variables

Demographic variables	Male		Female		Total
	F	%	F	%	n
Race					
Caucasian	12	66.7	17	60.7	29
Negroid	6	33.3	11	39.3	17
Total	18		28		46
$\chi^2 = 0.01$ df = 1 NSS					
Age					
15-34	9	50.0	21	75.0	30
35-64	9	50.0	7	25.0	16
Total	18		28		46
$\chi^2 = 2.02$ df = 1 NSS					
Type of location					
ABE classes	9	50.0	14	50.0	23
Learning centers	9	50.0	14	50.0	23
Total	18		28		46
$\chi^2 = 0.09$ df = 1 NSS					
Level of literacy					
Level one	11	61.1	11	39.3	22
Level two	7	38.9	17	60.7	24
Total	18		28		46
$\chi^2 = 1.31$ df = 1 NSS					
Funding status					
Stipended	7	38.9	9	32.1	16
Nonstipended	11	61.1	19	67.9	30
Total	18		28		46
$\chi^2 = 0.02$ df = 1 NSS					
Years of formal education					
Less than 8th grate	7	38.9	6	21.4	13
8th - 12th grade	11	61.1	22	78.6	33
Total	18		28		46
$\chi^2 = 0.89$ df = 1 NSS					

Table B-2. Cross tabulation comparison of race with major demographic variables

Demographic variables	Caucasian		Negroid		Total
	F	%	F	%	n
Sex					
Male	12	41.4	6	35.3	18
Female	17	58.6	11	64.7	28
Total	29		17		46
$\chi^2 = 0.01$ df = 1 NSS					
Age					
15-34	19	65.5	11	64.7	30
35-66+	10	34.5	6	35.3	16
Total	29		17		46
$\chi^2 = 0.07$ df = 1 NSS					
Type of location					
Traditional classes	18	62.1	5	29.4	23
Learning centers	11	37.9	12	70.6	23
Total	29		17		46
$\chi^2 = 3.36$ df = 1 NSS					
Level of literacy					
Level 1	7	24.1	15	88.2	22
Level 2	22	75.9	2	11.8	24
Total	29		17		46
$\chi^2 = 15.17$ df = 1 Sig. = < .001					
Funding status					
Stipended	9	31.0	7	41.2	16
Nonstipended	20	69.0	10	58.8	30
Total	29		17		46
$\chi^2 = 0.14$ df - 1 NSS					
Years of formal education					
Less than 8th grade	5	17.2	8	47.1	13
8th - 12th grade	24	82.2	9	52.9	33
Total	29		17		46
$\chi^2 = 3.34$ df = 1 NSS					

Table E-3. Cross tabulation comparison of age with major demographic variables

Demographic variables	15-34		35-66+		Total
	F	%	F	%	n
Sex					
Male	9	30.0	9	56.3	18
Female	21	70.0	7	43.8	28
Total	30		16		46
$\chi^2 = 2.02$ df = 1 NSS					
Race					
Caucasian	19	63.3	10	62.5	29
Negroid	11	36.7	6	37.5	17
Total	30		16		46
$\chi^2 = 0.07$ df = 1 NSS					
Type of location					
ABE class	15	50.0	8	50.0	23
Learning centers	15	50.0	8	50.0	23
Total	30		16		46
$\chi^2 = 0.095$ df = 1 NSS					
Level of literacy					
Level one	12	40.0	10	62.5	22
Level two	18	60.0	6	37.5	24
Total	30		16		46
$\chi^2 = 1.31$ df = 1 NSS					
Funding status					
Stipended	13	43.3	3	18.8	16
Nonstipended	17	56.7	13	81.3	30
Total	30		16		46
$\chi^2 = 1.80$ df = 1 NSS					
Years of formal education					
Less than 8th grade	7	23.3	6	37.5	13
8th - 12th grade	23	76.7	10	62.5	33
Total	30		16		46
$\chi^2 = 0.45$ df = 1 NSS					

Table E-4. Cross tabulation comparison of type of adult basic education program with major demographic variables

Demographic variables	Traditional class		Learning centers		Total
	F	%	F	%	n
Sex					
Male	9	39.1	9	39.1	18
Female	14	60.9	14	60.9	28
Total	23		23		46
$\chi^2 = 0.091$ df = 1 NSS					
Race					
Caucasian	18	78.3	11	47.8	29
Negroid	5	21.7	12	52.2	17
Total	23		23		46
$\chi^2 = 3.35$ df = 1 NSS					
Age					
15-34	15	65.2	15	65.2	30
35-66+	8	34.8	8	34.8	16
Total	23		23		46
$\chi^2 = 0.096$ df = 1 NSS					
Level of literacy					
Level one	9	39.1	13	56.5	22
Level two	14	60.9	10	43.5	24
Total	23		23		46
$\chi^2 = 0.78$ df = 1 NSS					
Funding status					
Stipended	4	17.4	12	52.2	16
Nonstipended	19	82.6	11	47.8	30
Total	23		23		46
$\chi^2 = 4.7$ df = 1 Sig. < 0.05					
Years of formal education					
Less than 8th grade	6	26.1	7	30.4	13
8th - 12th grade	17	73.9	16	69.6	33
Total	23		23		46
$\chi^2 = 0.6$ df = 1 NSS					

Table E-5. Cross tabulation comparison of literacy level with major demographic variables

Demographic variables	Level 1		Level 2		Total
	F	%	F	%	n
Sex					
Male	11	50.0	7	29.2	18
Female	11	50.0	17	70.8	28
Total	22		24		46
$\chi^2 = 1.30$ df = 1 NSS					
Race					
Caucasian	7	31.8	22	91.7	29
Negroid	15	68.2	2	8.3	17
Total	22		24		46
$\chi^2 = 15.2$ df = 1 Sig. < 0.001					
Age					
15-34	12	54.5	18	45.5	30
35-66+	10	75.0	6	25.0	16
Total	22		24		46
$\chi^2 = 1.31$ df = 1 NSS					
Type of location					
ABE classes	9	40.9	14	58.3	23
Learning centers	13	59.1	10	41.7	23
Total	22		24		46
$\chi^2 = 0.78$ df = 1 NSS					
Funding status					
Stipended	9	40.9	7	29.2	16
Nonstipended	13	59.1	17	70.8	30
Total	22		24		46
$\chi^2 = 0.3$ df = 1 NSS					
Years of formal education					
Less than 8th grade	12	54.5	1	4.2	13
8th - 12th grade	10	45.5	23	95.8	33
Total	22		24		46
$\chi^2 = 12$ df = 1 Sig. < 0.005					

Table E-6. Cross tabulation comparison of years of formal education with the major demographic variables

Demographic variables	Less then 8th grade		8th-12th grade		Total
	F	%	F	%	n
Sex					
Male	7	53.8	11	33.3	18
Female	6	46.2	22	66.7	28
Total	13		33		46
$\chi^2 = 0.9$ df = 1 NSS					
Race					
Caucasian	5	38.5	24	72.7	29
Negroid	8	61.5	9	27.3	17
Total	13		33		46
$\chi^2 = 3.34$ df = 1 NSS					
Age					
15-34	7	53.8	23	69.7	30
35-66+	6	46.2	10	30.3	16
Total	13		33		46
$\chi^2 = 0.45$ df = 1 NSS					
Type of location					
ABE class	6	46.2	17	51.5	23
Learning centers	7	53.8	16	48.5	23
Total	13		33		46
$\chi^2 = 0.0$ df = 1 NSS					
Level of literacy					
Level one	12	92.3	10	30.3	22
Level two	1	7.7	23	69.7	24
Total	13		33		46
$\chi^2 = 12$ df = 1 Sig. < 0.005					
Funding status					
Stipended	3	23.1	13	39.4	16
Nonstipended	10	76.9	20	60.6	30
Total	13		33		46
$\chi^2 = 0.49$ df = 1 NSS					

Table E-7. Cross comparison of student's situation with major demographic variables

Demographic variables	Stipended		Nonstipended		Total
	F	%	F	%	n
Sex					
Male	7	43.8	11	36.7	18
Female	9	56.3	19	63.3	28
Total	16		30		46
$\chi^2 = 0.023$ df = 1 NSS					
Race					
Caucasian	9	56.3	20	66.7	29
Negroid	7	43.8	10	33.3	17
Total	16		30		46
$\chi^2 = 0.14$ df = 1 NSS					
Age					
15-34	13	81.3	17	56.7	30
35-66+	3	18.8	13	43.3	16
Total	16		30		46
$\chi^2 = 1.80$ df = 1 NSS					
Type of location					
ABE classes	4	25.0	19	63.3	23
Learning centers	12	75.0	11	36.7	23
Total	16		30		46
$\chi^2 = 4.7$ df = 1 Sig. < 0.05					
Level of literacy					
Level one	9	56.3	13	43.3	22
Level two	7	43.8	17	56.7	24
Total	16		30		46
$\chi^2 = 0.27$ df = 1 NSS					
Years of formal education					
Less than 8th grade	3	18.8	10	33.3	13
8th - 12th grade	13	81.3	20	66.7	33
Total	16		30		46
$\chi^2 = 0.49$ df = 1 NSS					

APPENDIX F: HUMAN SUBJECT COMMITTEE APPROVAL FORMS

Informed Consent

Purpose and procedure

This research is about people and the sorts of things they learn. Everyone learns, but different people learn different things--and in different ways. I am interested in talking with you (interviewing) for approximately one hour to find out the things you have tried to learn during the past year and your potential learning needs so that an adult education program might be better prepared to help the people of Iowa. For example, I might ask you to read some statements loudly. Whenever you are asked to read, if you have any questions or you can not read them, please ask as we go along. Information will remain confidential. You will not be identified by name. You may withdraw consent and discontinue participation at any time. If you have any questions, please ask them at any time during our discussion.

I have read the above statements and voluntarily agree to participate.

Name _____

Date _____

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

1. Title of project (please type): An Investigation of Learning Projects Among Adults of Low Literacy Attainment

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

Heibatollah Baghi	Sept. 6, 1978	Heibat Baghi
Typed Named of Principal Investigator	Date	Signature of Principal Investigator

123-C U.V.	292-3338
Campus Address	Campus Telephone

3. Signatures of others (if any)

	Date	Relationship to Principal Investigator
[illegible]	[illegible]	[illegible]

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

- ☐ Medical clearance necessary before subjects can participate
- ☐ Samples (blood, tissue, etc.) from subjects
- ☐ Administration of substances (foods, drugs, etc.) to subjects
- ☐ Physical exercise or conditioning for subjects
- ☐ Deception of subjects
- ☐ Subjects under 14 years of age and(or) ☐ Subjects 14-17 years of age
- ☐ Subjects in Institutions
- ☐ Research must be approved by another institution or agency

5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

- ☐ Signed informed consent will be obtained.
- ☐ Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: Month Sept. Day 20 Year 78

Anticipated date for last contact with subjects: Month ___ Day ___ Year ___

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and(or) identifiers will be removed from completed survey instruments:
Participants will not be identified by name. Month ___ Day ___ Year ___

8. Signature of Head or Chairperson [signature] Date 9/8/78 Department or Administrative Unit Professional Studies

9. Decision of the University Committee on the Use of Human Subjects in Research: 9/29/78

☒ Project Approved ☐ Project not approved ☐ No action required

George G. Karas | 9/28/78 | [signature] George G. Karas

Name of Committee Chairperson | Date | Signature of Committee Chairperson

cc: H. Baghi
R. Hiemstra
J. Ahrens