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FACTORS IN PERSISTENCE AND DROPOUT AMONG ADULT BASIC EDUCATION STUDENTS

A Dissertation

Presented For the

Doctor of Philosophy in Education Degree

The University of Tennessee, Knoxville

Janet Schneider McCullough

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DEDICATION

This doctoral thesis is dedicated to

Ralph J. and Anne M. Schneider

Many have helped me along the way but my deepest gratitude goes to my beloved parents. Your example, your sacrifices, and your personal achievements have made it possible for me to achieve my goals.

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ABSTRACT

This research attempted to provide a comprehensive, theoretically-based provisional model of persistence and dropout among adult basic education students. The task of the study was to find justification for including specific factors in the model.

The population selected for this study was comprised of adult education students from eight Tennessee counties. This sample of 133 students represented the first of three cohorts from the "Study of Adult Learners in Tennessee," conducted by the Center for Literacy Studies of the University of Tennessee, Knoxville.

A provisional model of the process of persistence/ dropout in ABE was adapted from an existing model of institutional departure developed by Vincent Tinto. The model consists of five phases representing meaningful clusters of factors that characterize the process leading to the decision to continue participation or drop out from ABE. The five phases were: Pre-ABE Enrollment Attributes, Transition to the Educational Program, Interaction and Integration of the Learner within the Literate Environment, Learner Perspective, and Outcome (the decision to continue participation or to drop out).

Forty-two hypotheses were tested using one-way analysis of variance, t-test, Pearson product-moment correlation,

chi-square, Mann-Whitney U test, and Spearman rank-order correlation.

Ten of the forty-two hypotheses derived from the provisional model were supported by the data while thirty-two were not.

The theoretical model was useful in specifying ten significant relationships. The phases in the model were found to be inter-connected in terms of statistically significant relationships, and each phase of the model contained significant factors related to persistence and dropout. Thus, it was concluded that the model can be used as a framework for further research on the problem of ABE persistence and dropout.

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CHAPTER I

INTRODUCTION

While an estimated 30 million adults have less than a ninth grade education and an estimated 60 million are functionally illiterate, state and local literacy programs serve less than five percent of the target group; the matter is made worse by average dropout rates in adult basic education (ABE) programs which range from 40 to 60 percent (Quigley, 1992b). In one study it was found that adult basic education (ABE) students "are four times more likely to drop out than other adult education participants" (Anderson & Darkenwald, 1979, p. 5).

Although the currently enrolled ABE population represents a small segment of those who could potentially benefit from ABE programs, adult educators face a critical challenge to retain those learners. Indeed, a tangible measure for evaluating effectiveness of adult education is the retention of learners and actual achievement by learners of their educational goals. The report, Adult Basic Education in New York State (1968), concluded that "there is a direct relationship between regular systematic attendance and ... achievement" (p. 70).

Statement of the Problem

Studies which have examined the dropout problem have concentrated on the effects of demographic and personality characteristics or program factors on student dropout. As

researchers have pointed out, the problem reaches beyond those parameters and requires examination of factors from a variety of domains, including personality factors, in-school factors and out-of-school factors. Fingeret (1989), Quigley (1992b), Jurmo (1989) and others encourage the examination of this problem in terms of the interaction of individual, cultural and social factors.

No ABE study of persistence and dropout could be found which provided a comprehensive, theoretically-based, interactive model to guide the selection of diverse variables that influence persistence in adult basic education. Studies of the ABE dropout problem place over-emphasis on "input" or endogenous variables and ignore the potential affects of different aspects of in-school and out-of-school experiences on learners in acquiring literacy.

Purpose of the Study

The purpose of this study was to provide a comprehensive, theoretically-based provisional model to explain persistence and dropout among ABE students. The model represents a developmental step in conceptualizing a framework for measuring changes in the attitudes, beliefs, and behaviors of new students as they work toward or abandon their educational goals. The prediction of persistence or dropout was not within the scope of the study; the task of the study was to find valid justification for including specific variables in the model.

The study examined ten factors, or classes of variables, consisting of family background, personal characteristics, prior schooling, learning press, goal clarity, academic integration, social interaction, cultural interaction, and cultural integration. Variables were based on measures collected at the time of enrollment; therefore, the data reflects characteristics, attitudes, beliefs, and behaviors of ABE learners as new students.

Methodology

The population selected for this study was comprised of ABE students from eight Tennessee counties; those students with assessed entering level proficiency in basic reading, math and writing skills below sixth grade equivalency were included. This sample represented the first cohort of a three-year project, "Study of Adult Learners in Tennessee," conducted by the Center for Literacy Studies (CLS) at the University of Tennessee, Knoxville. The CLS was responsible for the questionnaire design, data collection procedures, and compilation of data. The 133 ABE learners who agreed to be interviewed as part of the CLS study were enrolled in eight urban and rural state-sponsored literacy programs between September 1991 and June 1992.

Significance of the Study

The outcome of this research project has both theoretical and practical significance. It proposed a preliminary theoretical framework for identifying complex

interactive influences that account for differences between low-literate adults who persist in ABE and those who drop out. The group differences and relationships in the model may provide a basis for understanding new students and measuring changes in their attitudes, beliefs, and behaviors as they work toward their educational goals. By addressing the complexity of factors identified in this study, the field of adult basic education can begin to develop programming and curricular approaches which correspond with the interests and needs of a larger segment of the ABE population.

Limitations

The study was conducted within the following limitations.

1. The study was based on a small, non-random sample (n=133) of ABE students who enrolled in state-supported literacy programs from Fall 1991 through Spring 1992 and agreed to participate in the longitudinal study conducted by the University of Tennessee Center for Literacy Studies (CLS).

2. The questionnaire design was beyond the control of the researcher, thus restricting the extent to which the study was able to examine relevant variables to the questions used in the Study of Adult Learners in Tennessee questionnaire.

3. No information is available on the rate of non-

response and on the comparability of participants in the study with those who did not participate because they refused or because they were not asked.

4. The findings are limited by the validity of the assumption that the self-reported data reflects the attitudes, beliefs, and behaviors of participants.

5. The treatment of the data was guided by the assumption that programs in the study are sufficiently similar to permit the aggregation of participant responses for overall analyses.

Theoretical Model and Hypotheses

A theory is "a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of the phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena" (Kerlinger, 1986). The provisional theoretical model presented below represents persistence/dropout behavior as a process influenced by interacting social, psychological, economic and cultural forces. While twenty-one variables are specified in the model, this study was able to examine nine of the variables for which proxy measures were available in the Study of Adult Learners questionnaire. (See Appendix A, ABE-1 Longitudinal Study: Baseline Interview).

The following discussion is a synopsis of a model of institutional departure which provides the conceptual

background for understanding persistence and dropout among ABE learners. The provisional model used in this study is then presented in terms of five phases which describe a process of persistence and dropout. Research related to each phase is presented, followed by hypotheses derived from the research.

Conceptual Background

A model of institutional departure developed by Tinto (1975, 1987) has prompted studies seeking to explain persistence/dropout in traditional and nontraditional higher education settings (Ashar & Skenes, 1993) and in a high school dropout program for young adults (Garrison, 1985). The model rests on the parallel drawn between ancient rites of passage to adulthood established by tribal cultures and persistence through educational institutions. The passage breaks down into three thematic phases -- separation, transition and incorporation -- which are pertinent to individuals participating as students within all levels of education. The three themes refer to types of issues with which individuals must struggle during passage from one phase to the next.

The conceptual themes of the model -- separation, transition and incorporation -- suggest movement from one way of life to another. ABE learners move from a relatively illiterate, marginal way of life to one that embraces the print culture. Fingeret wrote of "minority, ethnic, and

poverty enclaves" (1983; p. 141) of illiterate adults who operate "... on a continuum from engaging in minimal to extensive contact with the institutions, norms and systems of the literate society" (p. 137). Marginal, illiterate social cultures rely on the spoken word, memory aids and logic in daily living; whereas the main print society relies heavily on books, magazines, computers and newspapers for routine communication.

Illiterates do not necessarily live as part of a close-knit culture. Many blend in with society, maneuvering within the main culture by developing survival mechanisms to conceal their lack of basic literacy skills. Despite their deficiencies (at least, in the view of the dominant society), many illiterates resist education.

Quigley (1992a) distinguished three types of resisters to formal schooling among undereducated adults: personal-emotive, ideological-cultural, and age-based. Thus, an illiterate way of life exists and is recognized as viable by the adult education literature. The provisional model presented in this study identifies indicators that characterize movement along a continuum from resistance to adoption of print and numeracy skills as valuable tools for day-to-day living.

ABE learners experience "separation" in terms of distancing themselves from former, non-literate patterns of living and, possibly, from individuals associated with those

cultural patterns. This distancing may be manifested physically, by breaking off contact with associates or moving to a different environment, or intellectually, by devaluing behaviors, beliefs, and attitudes regarding former non-literate patterns of living. The act of distancing makes it more possible for individuals to explore alternatives as they engage in basic skills learning; they also experiment by becoming involved in a broader range of social and cultural interactions that demand greater levels of literacy. If they experience congruence between themselves and their new surroundings, they continue to engage more frequently in academic, social, and cultural interactions.

Individuals experience "transition" as they explore the concept of acquiring literacy for themselves. Educational program options are weighed against past experience with schooling (Garrison, 1985; Quigley, 1992a). Potential barriers to participating in an ABE program are also considered, including conflicts with work and family responsibility, and transportation problems. Transition continues as individuals formulate their personal goals, interact with others in the education program environment and in the literate culture.

Social and academic integration (or "incorporation") are necessary concepts in understanding persistence and dropout, according to Tinto. Social integration is the

extent to which learners experience congruence or affiliation with other members of the educational program. For individuals to become integrated socially, social interaction must occur. Forms of interaction transpire primarily as informal peer group associations and interactions between students and teachers. Positive experiences with social integration likely result in a sense of affiliation, group cohesiveness around goals and interests, and social support (Tinto, 1975).

Lack of social integration results from **incongruence** and **isolation**. As some individuals interact informally with other students and with teachers in an ABE program, they "perceive themselves as being substantially at odds with" their surroundings (Tinto, 1987, p. 53). Isolation refers to the absence or low frequency of social interaction. Both incongruence and isolation are indicative of poor social integration. The extent of social integration achieved by students influences their evaluation of the educational program and level of commitment to continue their participation (Tinto, 1975).

Academic integration is the extent to which learners experience congruence between their values and abilities and those which are rewarded by the academic system. Grades are a visible manifestation of one's assimilation into the academic system. "Grade performance becomes...both a reflection of the person's ability and of the institution's

preferences for particular styles of academic behavior" (Tinto, 1975; p. 104). Students use their own grade performance in weighing the costs and benefits of their continued attendance.

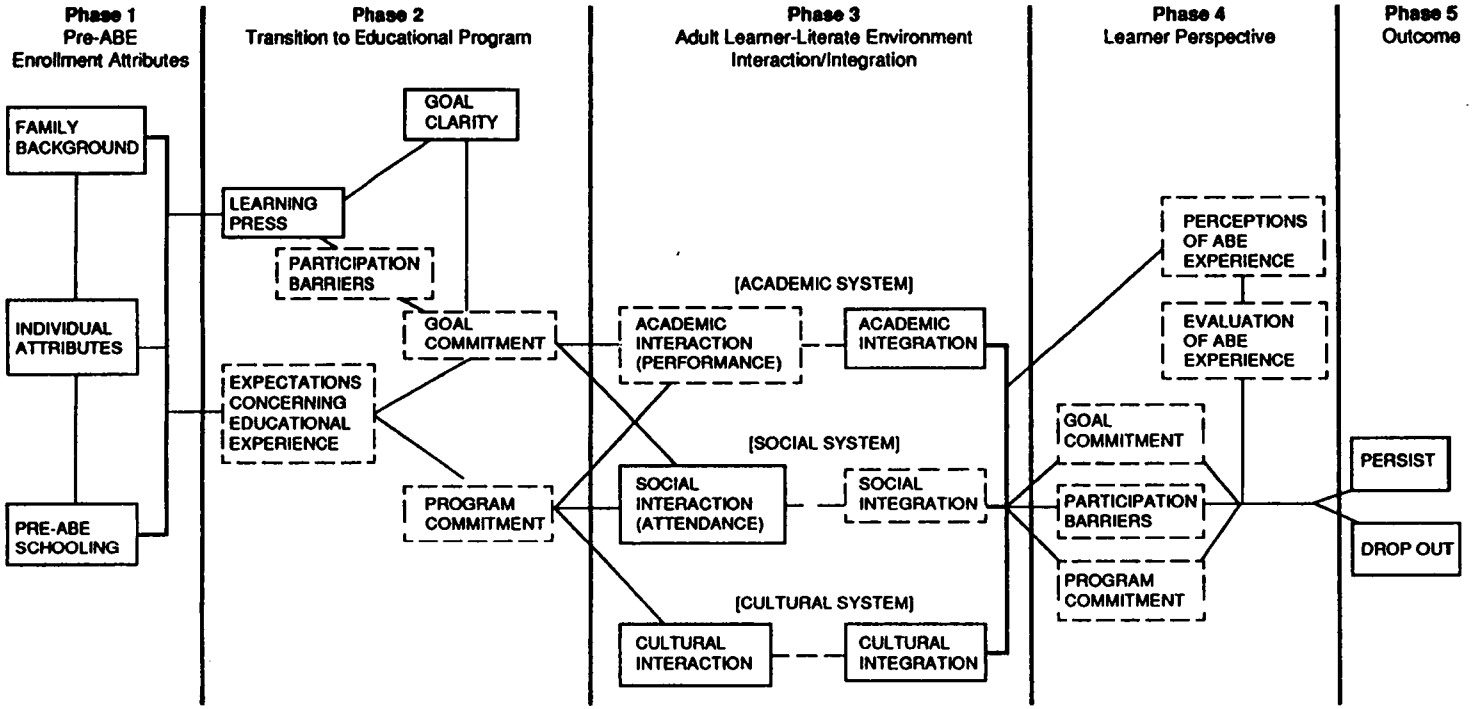
Cultural integration refers to the extent to which adult learners experience congruence between their abilities and values and the daily requirements to function within the dominant, literacy-based culture. While Tinto confined his model to the academic and social systems within the educational environment, the provisional model used in this study encompasses a broader environment to account for changes in behaviors, attitudes and beliefs, that occur outside of the educational setting. Adults are integrated into a literacy-based culture by the extent in which they engage in activities that require literacy -- for example, helping children with their school work -- and by the extent in which they value literacy in their lives. Cultural integration is placed in this model to explore the relationship between developing literacy and the gradual adoption of literate patterns of living.

Adult learners' initial goal commitment to literacy has a direct influence on the successful academic, social and cultural integration into a literacy-based culture and persistence in ABE (Tinto, 1985; Garrison, 1985). Goal commitment refers to the degree to which learners are emotionally or intellectually bound to take a course of

action that will result in the fulfillment of their aspirations. To have commitment to a goal, it is necessary to have a clear concept of the goal (Garrison, 1985); the goal must be specific and realistic with respect to the individual's aptitude and other personal resources.

Another concept of commitment introduced by Tinto is with respect to the program or institution. That is, learners must have a degree of conviction that the program is the appropriate mechanism by which to achieve their chosen educational or occupational skill or ability. If there is a reasonable level of commitment, they will utilize the program's services and interact with other participants. If the program's services are satisfactory, learners should experience successful academic integration, and possibly social integration, and continue their education. However, both goal and program commitment may be influenced by individual and other background variables (Tinto, 1985), by forces that constrain or induce learning activities (Cross, 1981), and by expectations concerning education based on past experience (Darkenwald & Merriam, 1982; Garrison, 1985).

The following paragraphs will present the provisional model (Figure 1.1) and the bases for hypothesized group differences and relationships among variables which will be examined in this study. (Refer to Appendix B, "Measurement of Variables," for a list of the variables and corresponding



NOTE: Boxes with solid borders contain variables investigated in the study; boxes with dashed borders contain variables not investigated in the study.

FIGURE 1.1
PROVISIONAL MODEL OF PERSISTENCE/DROPOUT IN ABE

items of the questionnaire instruments.) A more complete review of the literature is presented in Chapter II.

Provisional Model of Persistence and Dropout in ABE

Persistence is the process of interactions that occur between individuals and the educational environment and which result in their continued participation in an educational activity until the desired goal is achieved (Tinto, 1975). Conversely, dropout is the process of interactions between the individual and the educational environment which result in their withdrawal prior to completing course requirements or student objectives. Both concepts must be viewed as processes to better understand the underlying causes of various forms of dropout including early withdrawal (within the first twenty hours of instruction) (Darkenwald, 1981).

If persistence and dropout are to be viewed as a longitudinal process of interaction between learners and academic, social, and cultural systems, it is helpful to understand factors that influence these interactions. The presentation of the model begins with a description of pre-enrollment attributes in Phase 1 that influence the individual's ability and motivation to interact with educational and cultural systems.

The factors identified in Phase 1 impact the individual's transition to the educational program (Phase 2). Aspects of this transition will influence the quality

and quantity of the adult learner's interaction and integration within the academic, social and cultural systems of the literate environment (Phase 3). Learners develop perceptions concerning their interactive and integrative experiences (Phase 4). Learners take into account their perceptions of the educational experience as well as the pressures they face in deciding to continue or cease their participation (Phase 5).

Group differences on selected variables and relationships among variables in the model were identified. These types of analysis are based on research found in adult education literature, higher education literature in areas usually not studied by adult education researchers, and on conceptual reasoning.

Phase 1. Pre-Enrollment Attributes

Prior to enrollment in an ABE activity, personal attributes and past experiences of adults influence their perceptions, expectations and attitudes about learning and their learning behaviors. Their subsequent decision to persist or drop out of the educational program is also influenced by pre-enrollment attributes.

Family Background

The educational, cultural, social, psychological, and economic environment of the learner's pre-adult family provides the context within which the individual grows and develops skills, abilities, attitudes and expectations.

Family socio-economic status (SES), for example, influences the quality of life in which the child's intellectual and social capacities develop (Darkenwald & Merriam, 1982).

Parents' educational attainment is an indicator of SES. Studies of educational achievement indicate a strong causal influence of parental educational attainment on the child's educational expectations, aspirations and attainment (Cope & Hannah, 1975; Hackman & Dysinger, 1970). Therefore, it is hypothesized that:

H 1 Persisters are more likely than drop-outs to have parents who obtained a high school diploma or GED.

Individual Attributes

IQ, the presence of physical or psychological disabilities, self-esteem, and family background influence the level of formal schooling completed (Darkenwald & Merriam, 1982). Gender, age, race, marital status, hours on the job and income are also factors that help explain participation and persistence in adult education.

Knibbe and Dusewicz (1990) found that female students attended more hours of instruction than males in Pennsylvania literacy programs. Studies of adult students have shown that younger adults, age 18 to 24, are more likely to drop out than older adults, age 25 to 34 (Truesdell, 1975). Heathington, Boser and Salter (1984) found that older students dropped out from a volunteer-based literacy program less often than younger students.

In Knibbe and Dusewicz's analysis of Pennsylvania adults, Blacks attended more hours of ABE than Whites; Hispanic and Asian groups attended the least (1990). In contrast Anderson and Darkenwald (1979) found that Blacks were more likely to drop out than Whites; the findings of the latter study merit more attention because multi-variate data analyses were used in controlling for alternative hypotheses. Knibbe and Dusewicz found that single adults and those without children attended more hours of instruction than did married students.

Due to Garrison's (1985) finding that students who worked longer hours on the job tended to persist at a higher rate, it also follows that those with higher incomes will persist at a higher rate.

From the preceding studies, therefore, it is hypothesized that:

H 2 Persisters are more likely to be males than females.

H 3 Persisters are more likely to be older than drop-outs.

H 4 Persisters are more likely to be White than Black.

H 5 Persisters are more likely to be not married than married.

H 6 Persisters work more hours on the job than do drop-outs.

H 7 Persisters earn higher income than drop-outs.

Low self-esteem has been associated with dropout among high school students (Kronick & Hargis, 1990) and ABE students (Darkenwald, 1981; Mumford, 1986; Hayes, 1988; and Fagan, 1991). High self-esteem helps to motivate students to keep attending and learning (Albert & D'Amico-Samuels, 1991). Garrison (1985) found that discrepancy between self-confidence and ideal self discriminated between persistence and dropout among ABE students. Cross (1981) explains that those who think negatively of themselves will also think negatively of their chances for success. Therefore, it is hypothesized that:

H 8 Persisters have higher self-esteem than drop-outs.

Pre-ABE Schooling

Relationships with teachers and other students, memories of success and failure, the nature of reinforcement for learning received in the home, and reasons for dropping out of school contribute to ABE learners' expectations concerning subsequent educational experiences (Fingeret, 1989). A student with more years of schooling prior to ABE might have less difficulty in adjusting to the classroom environment and, therefore, would be more likely to persist in training. Garrison (1985) found last grade completed to be a strong predictor between persisters and dropouts and used it as a control variable for background characteristics. Truesdell (1975) found that students with 5 to 8 years of schooling had a higher propensity to persist than

those with 1 to 4 years. Years of schooling completed appears, therefore, to be a legitimate variable to include as a factor that contributes to our understanding of persistence and drop-out. Therefore, it is hypothesized that:

H 9 Persisters completed more years of formal schooling than drop-outs.

Phase 2. Transition to Educational Program

During the early stages of ABE participation, the learner becomes acquainted with the program environment. Adults consider the compatibility of various aspects of the program environment with their own motivations, goals, and expectations (Ashar & Skenes, 1993). They consider their goals and whether the program as a whole corresponds with their needs (Fingeret, 1989).

Learning Press

Individual attributes (e.g., IQ, SES) and family background variables (e.g., educational attainment of parents, cultural values) have a significant impact on "learning press" (Darkenwald & Merriam, 1982). Learning press refers to "the extent to which one's total current environment requires or encourages further learning" (Darkenwald & Merriam, 1982; p. 142). If their parents had inculcated the importance of education in them as children, then they, as adults, will regard schooling as valuable. Aspects of the environment that may compel further learning

are the demands of social activities, work-related requirements, and life-style interests. Many domains of life, especially the work domain, require at least the most basic literacy skills of individuals. Every adult in modern society continually, on a daily basis, face the need to read, write and compute on the job and for personal needs. However, while learning press influences the choice to participate in adult education, adults continue to weigh the press for formal learning against other pressures on their time and energy. Therefore, it is hypothesized that:

H 10 Persisters are more likely than drop-outs to report frequent literacy needs.

The work of Andrews and Withey (1974) suggests that self-esteem correlates positively with overall satisfaction. Among employed individuals a direct relationship has been shown between self-esteem and satisfaction with one's work (Tharenou, 1979). This is also expected to be true among the ABE population. Therefore, it is hypothesized that:

H 11 There is a positive relationship among ABE students between self-esteem and life satisfaction.

H 12 There is a positive relationship among ABE students between self-esteem and perceptions about the work environment.

Expectations Concerning the Educational Experience

Expectations concerning the benefits to be derived from

a learning activity, the process of learning, behavior of the teacher and that of other students were variables that demonstrate explanatory or predictive power according to Darkenwald (1981). An adult's individual and family history of educational experiences can either heighten or limit one's expectations concerning educational activities in various ways (Quigley, 1992b). Low confidence about one's learning ability, fears of failure, and concerns about family/social opposition to educational endeavors may cause early dropout (Balmuth, 1988) or thwart commitment to learning goals. Perceptions about family members' educational achievements or lack thereof also affect expectations regarding their own learning potential or interest in learning. Alternatively, some adults question "the appropriateness of educational programs to their concerns, pressures, and life circumstances" (Fingeret, 1989; p. 54). (No hypotheses are presented due to lack of available measures from the source of data used in this study.)

Goal Clarity and Goal Commitment

Goal commitment is directly related to persistence in college (Tinto, 1975), and it may be assumed that this direct relationship transfers to persistence in ABE. Goal clarity refers to the degree of certainty of career aspirations (Garrison, 1985), educational plans or educational expectations (Tinto, 1975). Realistic or

unrealistic goal expectations contributes significantly in Garrison's model to predicting persistence in ABE for young high school dropouts preparing for the GED. As Rogers has asserted, "the more clearly goals are defined, the greater the learning that takes place...if the goals are left vague, the learner is uncertain what responses are needed, what learning changes are intended" (1986; p. 78).

Thus, it is hypothesized that:

H 13 Persisters are more likely than drop-outs to have clear educational goals.

Clark and Hall found that ABE students with low self-concepts had unrealistic occupational aspirations (1983). It can be reasoned that ABE students with low self-concept and desire for expeditious socio-economic improvement often expect more from the program than is possible to achieve; the disparity between goals and actual outcomes may lead the learner to drop out (Garrison, 1985). It has been shown that self-esteem, life satisfaction, and job satisfaction in the same direction (Andrews & Withey, 1976). If clarity of goals corresponds positively with higher self-esteem, it may be true that it has a similar relationship with life satisfaction and with job satisfaction (perceptions of the work environment). People who have greater satisfaction with their lives, it would seem, have experienced success in meeting their needs in important aspects of their lives, i.e., job, family, hobbies, etc. Part of their success is

knowing how to set goals and knowing what goals will make them satisfied.

Thus, it is hypothesized that:

H 14 ABE students who have clear educational goals are more likely to have higher self-esteem.

H 15 ABE students who have clear educational goals are more likely to have higher life satisfaction than ABE students who have unclear goals.

H 16 ABE students who have clear educational goals are more likely to have more positive perceptions about their work environment than ABE students who have unclear goals.

Adults who lack basic literacy skills and who have the confidence to make changes in their circumstances -- through better education, better jobs, different hobbies, more involvement in their communities -- in this modern Information Age, will likely encounter obstacles to their progress. These adults will be able to define which skills they must obtain in order to meet the requirements that they have experienced.

Thus, it is hypothesized that:

H 17 ABE students who have clear educational goals are more likely to have more frequent literacy needs than ABE students who lack clear goals.

Barriers

Patricia Cross (1981) developed a typology of barriers

that affected participation and persistence in adult education pursuits: psychosocial, institutional, and situational (transportation, child care and job conflicts). In a study of factors that negatively affected attendance, Leonard (1986) found that dropout among ABE and GED students was affected more by situational barriers than by institutional or dispositional barriers. Fagan (1991) pointed out in his model of persistence the importance of addressing life factors and learner-inherent factors in program planning. However, despite the range of obstacles learners face in working toward their goals, many learners maintain their commitment. Level of goal commitment may help explain why some learners drop out and others persist despite the presence of barriers. (No hypotheses are presented due to lack of available measures from the source of data used in this study.)

Program Commitment

Seaman (1971) conducted a review of studies on the ABE dropout problem. He cited a lack of understanding among learners concerning the capabilities of the program among the reasons for dropout in ABE. These studies point to the necessity for learners to have a clear idea of the knowledge and skills they intend to acquire and an understanding of the program's objectives (Boshier, 1973). (No hypotheses are presented due to lack of available measures from the source of data used in this study.)

Phase 3. Adult Learner-Literate Environment

As learners increasingly interact within the educational program and within the literate culture, they develop perceptions concerning their own learning experiences. Continual interaction with academic and social systems re-affirm learners' growing sense of congruence or incongruence with the new environment (Tinto, 1987; Ashar & Skenes, 1993). It may be surmised that interaction within the cultural system also re-affirms their perceptions of congruence or incongruence with the dominant, print society. ABE students who perceive congruence with the academic, social and cultural environment will become further integrated into these systems. It is assumed that as they engage in more of these actions, they will begin to value those interactions; therefore, interaction leads to degrees of either integration or alienation. Level of integration will ultimately impact the individual's goal commitment and program commitment which, in turn, influence likelihood of persistence.

Academic Interaction and Academic Integration

While generally treated as an outcome variable in educational research, within the provisional model academic performance is an mediating variable, representing a facet of academic interaction. It is assumed that academic progress is achieved through classroom instruction, teacher-student interaction, and instructional exercises. Students

with goal commitment are more likely to spend more time on the task of learning and will experience progress toward their goals (e.g., increase reading scores). Rate of progress will influence later performance, and, as students evaluate their grade performance, their commitment to original goals is renewed or revised. (No hypotheses are presented due to lack of available measures from the source of data used in this study.)

As various forms of academic interaction increase, learners become more integrated, and they experience greater congruence within the program environment. This greater integration reinforces goal commitment and increases likelihood of persistence. Therefore, it is hypothesized that:

H 18 Persisters engage in academic literacy-related activities more frequently than drop-outs.

Social Interaction and Social Integration

Social Interaction. In Garrison's study of persistence in ABE, learners' friendships with other learners and the amount of teacher support were important factors. A relationship between regular classroom attendance and academic achievement was reported in Adult Basic Education in New York State: A Two-Year Study (1968). Social interactions, including friendships with other learners and supportive teacher-learner relationships, contribute to learner perceptions of congruence with the program

environment. Since interactive experiences promote integration, the more time available for social interactions to take place, the greater the likelihood of social integration.

Balmuth (1988) reviewed studies that describe peak times for dropout among ABE participants for varying reasons: many leave a program after the first week because they doubt their ability to learn and fear failure (Patterson & Pulling, 1981); others leave after three months or nine months because they perceive they are not making rapid enough progress (Darling, 1981).

Duration of attendance is assumed to be an indication that social interaction is taking place. The longer the duration, the more social interaction that will occur. Therefore, it is hypothesized that:

H 19 Number of hours of attendance in ABE is higher among persisters than drop-outs.

If attendance in ABE is higher among persisters, those who tend to persist will have attended more hours of class. Several studies have studied attendance in terms of individual attributes. According to research, the following groups demonstrate higher patterns of attendance in adult education: women more than men, and single more than married students (Knibbe & Ducewicz, 1990); older more than younger students (Truesdell, 1975); Whites more than Blacks (Anderson & Darkenwald, 1979); students who work longer

hours on the job (Garrison, 1985). Students work longer hours tend to earn higher incomes than students who work fewer hours, hence attendance should be related to income.

Therefore, it is hypothesized that:

H 20 Number of hours of attendance in ABE is higher among women.

H 21 There is a positive relationship between hours of attendance and age.

H 22 Number of hours of attendance in ABE is higher among Whites than Blacks.

H 23 Number of hours of attendance in ABE is higher among learners who are not married than married learners.

H 24 There is a positive relationship between attendance and income.

High self-esteem helps to motivate learners to maintain regular attendance and learn (Albert & D'Amico-Samuels, 1991). Knibbe and Dusewicz (1990) asserted that learners with low self-esteem were less likely to assimilate within an educational environment. Therefore, it is hypothesized that:

H 25 There is a positive relationship between attendance and self-esteem among ABE learners.

Adults who attended more years of formal schooling should be able to adapt to the ABE classroom environment with less difficulty than those who completed less

schooling. They will be more familiar with the kinds of skills in which they need remediation and the kinds of instruction that will be assigned. Therefore, it is hypothesized that:

H 26 There is a positive relationship between number of hours of attendance and last grade of school completed.

Learners need to recognize the curriculum as being relevant to their goals and needs. "The most powerful predictor of persistence in adult education is satisfaction with the learning activity in terms of its 'helpfulness' in meeting one's objectives" (Anderson & Darkenwald, 1979; pp. 4-5). If learners are not convinced that the learning activity will help them, their attendance will decline. Frequency of attendance is a problem in ABE and is reflected in the rate of progress learners achieve and the degree to which they can maintain commitment to their learning goals.

H 27 ABE learners who have clear educational goals are more likely to attend more hours of ABE learners who have unclear goals.

Hours of attendance is also reflected in the degree to which learners have achieved academic integration. Reading magazines, newspapers or books to educate one's self is an indication that learners have achieved academic integration; that is, they value the basic academic skill of reading. If

they value reading, they will continue attending classes to improve this and other skills.

H 28 There is a positive relationship between reading magazines, newspapers or books and number of hours of attendance among ABE learners.

Social Integration. Social integration occurs when learners acquire a number of peer relationships, become involved in program-related extracurricular activities, and interact frequently with instructors and staff (Tinto, 1975). Garrison (1985) defined social integration in terms of establishing personal relationships within the peer group and participating in extracurricular activities in a way similar to college learners participating in campus life. In those terms, social integration was not considered by Garrison to be relevant to adults who are faced with social and economic responsibilities and commitments. "Because of the strong influence of socio-economic factors external to the school setting, a more holistic view of environmental press is required for an understanding of dropout behavior in ABE" (Garrison, 1985, p. 27). Therefore, social integration measures are needed to tap a more holistic view of social integration for the ABE learner. This holistic view should not overlook the potential for group instruction, peer tutoring and learner support associations in ABE that foster new social relationships within the social system of the program. (No hypotheses are presented

due to lack of available measures from the source of data used in this study.)

Cultural Interaction and Cultural Integration

In order for adults to want to participate in ABE, they must believe that literacy will have an immediate and apparent role in their day-to-day living needs. Quigley (1987, 1992a), Fingeret (1989), and Charnley and Jones (1979) address the importance of cultural, social, and political congruence between learners and the objective of the ABE program; that is, to teach basic skills. Quigley concluded that the purpose of ABE is "cultural and value change" (1992b; p. 42). Traditional ABE is in the business of promoting the value of standard reading, writing, speaking, listening and math skills and promoting the behaviors, attitudes and beliefs of the dominant print culture. If those values are not acceptable to the learner, rejection of the program tends to occur. For example, adults who enroll in a program under compulsory conditions (e.g., required by an employer or by a public assistance program), will avoid compliance (attendance) if the program fails to meet their own perceived interests and needs (Quigley, 1992a). If they perceive no practical use for basic literacy skills in their lives, they will interpret the teaching as a disparagement of their cultural identity; this represents a lack of congruence between the learners' cultural identity and literacy.

As Fagan (1991) described in a model that has practical significance for understanding adult participation and dropout in literacy programs, it is necessary for literacy program planners to consider factors that are of importance to the lives of learners. A longitudinal study of adult learners revealed that adults' desire to assist their children with school motivated them to participate and continue in ABE programs (Albert & D'Amico-Samuels, 1991). If one's parents valued education enough to obtain a diploma or GED, they probably spent time with their children's school work; those memories of getting help from their parents bring about the adult's interest in helping their own children. Therefore, it is hypothesized that:

H 29 Persisters are more involved with their children's school-life than drop-outs.

H 30 There is a positive relationship between involvement in children's school-life and attitudes toward literacy.

H 31 ABE learners whose parents obtained a high school diploma or GED certificate are more likely to be involved in their child's school-life.

If a learner is active in a community group, there will be times when basic literacy skills are required. As learners find their literacy skills useful tools in daily living, interest in improving those skills increases. Therefore, it is hypothesized that:

H 32 Persisters are more likely than drop-outs to be involved in a club or organization in the community.

The provisional model looks at relationships between personal characteristics and cultural interaction. While there have been studies on voting behavior and participation in community organizations, it was not found that patterns in these behaviors had been isolated for study within the ABE population. Therefore, it is hypothesized that:

H 33 Female ABE learners are more likely than males to be active in clubs or organizations.

H 34 There is a positive relationship between life satisfaction and level of activity in clubs and organizations.

H 35 White ABE learners are more likely to attend community meetings than ABE learners who are Black.

H 36 Female ABE learners are more likely to attend community meetings than male ABE learners.

H 37 Married ABE learners talk with their neighbors more than non-married ABE learners.

H 38 White ABE learners are more likely to be registered to vote than Black ABE learners.

H 39 Persisters are more likely to use the public library than ABE learners who drop out.

H 40 Persisters have more positive attitudes about literacy than drop-outs.

H 41 ABE learners whose parents obtained a high school diploma or GED certificate are more likely to use the public library than those whose parents did not.

H 42 There is a positive relationship between ABE learners' self-esteem and their attitudes toward literacy.

Phase 4. Learner Perspective

Goal Commitment and Program Commitment

As learners move closer to their goals, goal and program commitment increases (Tinto, 1975). Yet, even after a period of time has passed in which learners have borne the costs and reaped the benefits of academic, social and cultural integration, the potential for dropping out from the educational program remains. Reasons for dropping out at a stage so close to completion may be qualitatively distinct from earlier dropout. Dropping out at a point near completion could indicate that the strength of goal commitment may be greater than that of program commitment. The reason for leaving may be linked with scheduling programs or some other barrier to participation. ABE dropouts may enroll in an alternative program or decide never to participate in formal ABE again. (No hypotheses

are presented due to lack of available measures from the source of data used in this study.)

Perceptions and Evaluations Concerning ABE

Harman (1977) regarded motivation as having two levels: the original motivation to participate and subsequent motivations which evolve in reaction to their experiences with the ABE program. Original motivations merge with subsequent motivations to influence the decision to continue their participation. Decisions involving both participating and dropping out are influenced by the interplay of psycho-social and environmental variables. For example, if learners' self-esteem improves, they may regard the ABE experience as having a role in that improvement and may decide to remain with the program. If learners' self-evaluation of their own progress is negative, they may find reasons for discontinuing their participation. Darkenwald (1981) noted the importance of the learner's evaluation of the experience of learning and of comparing expectations with reality to decisions about dropping out of a program. (No hypotheses are presented due to lack of available measures from the source of data used in this study.)

Phase 5. Decision to Persist or Dropout

Recalling Tinto's themes, persistence is the result of successful separation of the adult learner from former illiterate patterns of communication, successful transition into a literacy program, and, finally, incorporation into

the literate culture. Dropout is the result of failure at some point in the process. The difference between success and failure is due to the inability to achieve congruence between learner and program. In considering ways to facilitate congruence, programs need to find creative ways to make use of information on several types of information on adult learners: family background, individual attributes, prior schooling, goal clarity, learning press, potential participation barriers, goal commitment, program commitment, and interaction and integration with academic, social and cultural systems of literacy.

Summary

The first chapter has provided an overview of the provisional model. The major variables that influence persistence and dropout in ABE programs were introduced and summarized in relation to the theoretical model which has been adapted from a higher education study. Relevant findings from the literature were presented as background information for the development of many of the hypotheses. Other hypotheses were developed from reasoning which stemmed from findings available in the literature. Chapter II provides an in-depth review of literature on dropout and persistence.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents an analysis of literature on ABE drop-outs, reasons for dropping out, models for understanding dropout behavior and models for predicting or explaining persistence and dropout. The purpose of this review is to introduce a variety of concepts that have been considered in models for predicting or explaining persistence and dropout behaviors.

Definition of Dropout

The term "dropout" in ABE varies in practice as well as in research. According to Seaman (1971) different ABE programs define it differently. Students would be considered "dropouts" for missing a minimum number of class meetings either consecutively or within a school term; or they could leave before completing a unit of instruction or completing an evaluation exercise. In general, "dropout" is traditionally defined in the field of practice as persons enrolled in an adult education class who discontinue their participation before completing course requirements or student objectives. For purposes of research, dropout has been defined in terms of attendance within a specified time period or in terms of learning achievement.

Most studies divide ABE participants into persisters and drop-outs while overlooking the possible differences among drop-out groups. Even while acknowledging the

"multiple forms of dropout" (p. 25), Garrison (1985) defined ABE drop-outs as "students who did not receive a grade at the end of the course and were classified as incomplete" (p. 30); these "ABE students" were taking a high school completion program of 10th grade English and math courses lasting five months. Drop-outs have been defined as "individuals who fail to complete a literacy program without significantly improving their literacy skills or reaching their literacy goals" (Bean, Partanen, Wright, & Aaronson, 1989; p. 146). Darkenwald and Gavin (1987) considered the drop-out as one who attended only the first class in a five week period. Drop-outs classified as "early leavers" become officially enrolled but never return (Charnley & Jones, 1979). Agreement among researchers on a definition of dropout would represent an advancement toward building a theory on the ABE dropout phenomenon.

Researchers are beginning to recognize the value in distinguishing among ABE enrollees whose participation ranges from completion of objectives to very brief exposure to the program without completing objectives. Balmuth (1988) reviewed studies concerning different motivations for dropping out. There may be patterns in dropout behavior that link peak times with different reasons for dropping out. Many drop out of a program after the first week because they doubt their ability to learn and fear failure (Patterson & Pulling, 1981). Others drop out after three

months or nine months because once they have overcome their doubts about learning they realize they are not making rapid enough progress; January is also noted as a period of high dropout (Darling, 1981). Thus, the literature indicates some recognition that drop-outs are not one homogeneous group.

One study examined the ABE dropout problem (Knibbe & Dusewicz, 1990) by specifying two subgroups of drop-outs as dependent variables: those who left after one meeting and never returned within 4 months and those who completed less than 21 hours of instruction without completing a goal. More research is needed to understand better the factors that influence ABE participants to drop out of a program whether they leave early in the program, after a few months, or some other time period. Aside from dropout in relation to time, research needs to explore other directions for studying dropouts. For example, research needs to acknowledge that some learners drop out for positive (as opposed to negative) reasons and that they have, indeed, achieved their intended goals.

In summary, there has been an emerging recognition of the need to look at the dropout problem in terms of various degrees of involvement with the learning activity, e.g., after the first week, or after three or four months. In addition, as adult education researchers struggle to define and understand the ABE drop-out it is vital to avoid

equating the act of leaving a program with the rejection or cessation of learning. Rockhill (1982) cautioned researchers to include the point of view of the individual. There is a whole range of dropout behaviors and activities that have yet to be considered before the problem of description can be settled.

Reasons for Dropping Out

Several studies reported results of questionnaires and interviews on reasons ABE and GED students gave for dropping out of adult education. Some studies were descriptive, focussing on socio-demographic characteristics, barriers to continued participation, motivations and perspectives of drop-outs. Other studies attempted to draw upon social science concepts to guide their understanding of the drop-out and the dropout phenomenon.

Mumford (1986) developed the following description. Typical ABE students were high school drop-outs and perform at below grade level in math and reading. Their past association was characterized by a trend in declining grades, lack of goal orientation to school, earmarked by former teachers as slow learners, uncooperative, inattentive, and unmotivated. They were easily discouraged, manifested low self-esteem, and felt alienated, isolated, insecure, and inadequate. In high school they did not participate in school activities, had poor attendance records, and had parents with low educational achievement

levels. Connected with the alienation concept, Quigley (1992b) described those whose cultural, political, moral and social disaffection led them to drop out of high school to gain their "freedom." As suggested by Kronick and Hargis (1990) some drop-outs have higher self-concept when leaving school. According to role strain theory, the school environment provides no opportunity for positive status attainment but the home and neighborhood do.

An early review of literature (Seaman, 1971) summarized the areas that led to dropout, including the ABE program environment, physiological factors, and wants and goals of students. Problems regarding program environment included inconvenient location, no provisions for one-parent families, "not conducive to a mobile population" (p. 5), unsafe location, rigid programs. Physiological factors included lack of provisions for the physically handicapped and the scheduling of class at inconvenient times. Wants and Goals included lack of sufficient job preparation training and lack of understanding by learners of what the program can provide.

Interviews with teachers of literacy programs found that main causes of dropout included change in work schedule (58%), "discouragement over lack of progress" (17%), child care (15%), moving away (10%) (Mezirow, Darkenwald, & Knox, 1975). Prins (1972) interviewed a random sample of ABE drop-outs who gave the following reasons for leaving: job

obligations, illness, family obligations. They gave high positive ratings to classroom, schedule, text, teachers, locations, and other school related factors, and more than 90% would enroll again. The Portage Township Schools study (1981) tried an indirect approach in obtaining reasons for ABE dropout. Researchers interviewed former ABE participants about why they surmised other students dropped out, because when asked directly about their own reasons, the tendency was to give only non-school reasons. The participants attributed different reasons for their colleagues many of which included problems with impatient teachers, instructional level of materials, lack of child care, inadequate transportation, and inconvenient hours.

Black and Sim (1990) used a semi-structured interview to survey the experiences of former ABE students in Sydney, Australia, who dropped out. Respondents gave classroom and non-classroom related reasons for leaving. They reported several aspects of the classroom experience that affected them: teacher-student relationship, student relationships, changes in teachers, class size, lesson content, and approaches to teaching. There were often incongruencies between students' expectations and the actual capabilities of the program.

A study of drop-outs among ABE and GED students examined factors that negatively affected attendance. Using Patricia Cross' typology, Leonard (1986) found situational

barriers (transportation, child care and job conflicts) affected drop-outs rather than institutional or dispositional barriers.

Quigley (1987, 1992a) drew attention to drop-outs who resist ABE programs due to political and moral disaffection. These "resisters" tend to associate ABE with their negative high school experience which alienated them culturally, morally, or socially. Resisters who dropped out of high school to gain their "freedom" perceive ABE and formal education, in general, as representing rejection of their self-worth and that of their social referents. The act of participation in ABE was viewed as accepting a value system that rejected their chosen culture or life-style.

Charnley and Jones (1979) suggested that low-literate adults share the same kind of experience of marginality with other so-called "marginal" groups such as homosexuals, or the physically disabled. Marginals are excluded from society in various ways due to their low-literate status. Once they respond to a perception of pressure to change (e.g., family, job requirements) by enrolling in an educational program, the challenge to change their identity becomes overwhelming and they drop out.

In conclusion, reasons for dropout among the low-literate ABE participants fall into several classifications: ABE program environment, physiological factors, and wants and goals of students; situational, dispositional, and

institutional; cultural, political, moral, or social; and psycho-social. These studies are limited by a narrow view of dropout and neglect interactions among the variables. Individuals who step out of their usual range of activities to pursue new learning goals are typically confronted by dispositional, institutional and situational factors that threaten to alter one's educational plans. Studies are needed to explore interactions among levels of various factors and require models as guides.

Models for Understanding ABE Drop-Outs

Some studies of adults seek to develop typologies to inform educators about unserved or underserved populations. These typologies emphasize personality factors and/or program related factors. Researchers are also recognizing the importance of non-school factors such as situational barriers, life-style perspectives, and social role demands.

Hayes (1988) developed a typology of reasons for non-participation of low-literate adults in adult education. Six classifications of reasons were derived from six cluster analyses:

(1) deterred by social disapproval;

(2) deterred by situational barriers and lack of confidence;

(3) deterred by low self-confidence in ability to learn;

(4) negative attitude toward taking classes;

(5) considered education a high personal priority but also experienced one or more situational barriers such as child care; and

(6) considered adult education a low personal priority.

These same factors for non-participation may play a role in an ABE participant's decision to drop out or continue in the program in addition to reasons for non-participation. For example, a spouse or friend intimidating a student with low self-confidence into quitting, or a learner whose change in work schedule interferes with scheduled classes. It is also possible that individuals drop out from programs after learning more about the time and effort required of them to accomplish their desired goals and determine for themselves that the learning activity is not presently a high enough priority to warrant their continued participation.

In dropout research, Kronick and Hargis (1990) characterized young high school drop-outs into four categories: (1) Quiet drop-outs, described as withdrawn low achievers; (2) Low Achieving Pushouts, students with behavior problems in reaction to failure; (3) High Achieving Pushouts, students with behavior problems in reaction to failure; and (4) Low achieving in-school dropouts. Kronick and Hargis argued that the high dropout rate is due to weaknesses in the curriculum. They encouraged the study of the institution to determine ways in which the curriculum

fails the student using classical organizational theory, human relations theory, contingency theory, open systems theory, and Theory Z. Major individual level factors that should be examined include: Ecological variables (e.g., parents' education level, home life, social climate, peer group characteristics, socio-economic status); school variables (e.g., social climate, attendance in elementary school, involvement in school activities); biographical variables (e.g., race, age, gender); psycho-social variables (e.g., social skill development, locus of control, self-concept); and academic ability (IQ, achievement in reading, math).

Martin (1989) developed a set of differentiating life style classifications of adult high school drop-outs. These classifications were based on: nature of employment (type or skill level), unemployment source of support, age and life-style/belief system (social vs. anti-social). The pro-social classifications are: Entrepreneurs (business owners), Superiors (supervisors), Regulars (skilled/unskilled), Suppliants (recipients of indirect support), and Marginals (public assistance recipients). The underclass members share the same five classifications but have chosen anti-social life-styles as reflected by chronic alcohol and drug abuse, violence, and crime. These classifications are further analyzed by three age groups, young, middle-aged, and older. Martin obtained these classifications using

psychographic techniques found in market research. While these descriptions represent some non-completers in unflattering terms they provide educators with one stream of insight about ways to target their programs and adapt their programs to become more effective.

Sociological concepts of disengagement and alienation have been applied to the dropout experience (Popp, 1991). Interviews with family literacy learners revealed that the process of disengagement from schooling occurred during the transition from elementary school to middle school. Respondents reported feelings of alienation from schooling throughout adulthood as well.

Fagan (1991) described a model for understanding adult participation in literacy programs. The model includes learner-inherent factors (self-evaluation, goals and capabilities); life factors that affect participation (life transitions, access to information, and barriers to participation); and aspects of the program (organization, content, procedures, and personnel). These factors interact and have positive or negative consequences for participation. The optimum program is one that creates harmony among the three sets of factors; there is overlap among the goals and concerns of the program and those of the learner. The least effective situation has no overlap; the program goals do not consider or make provisions for the goals, capabilities, life triggering events and barriers to

participation of the learner.

Intellectual capacity influences the ability to respond to educational stimuli. Cunningham (1974; cited in Cookson, 1986) measured intellectual capacity in terms of intelligence test scores and found "capacities to be related to completion rates of adult basic education participants" (p. 136).

Studies concerning reasons for dropout tend to be non-theoretically based descriptive studies. Some studies, namely, those of Hayes (1988), and Martin (1989), attempted to provide new foundations for theory building. Hayes (1988) suggested interactions of factors (situational and dispositional) help explain participation/dropout behaviors. Lack of confidence in ability to learn, negative attitudes about schooling, and consideration of priorities are other valuable explanations that should be included in theoretical models. Martin's (1989) psycho-graphic pro-social and anti-social life style classifications provided an alternative direction toward investigating ways in which the values and life styles of program planners and instructors may differ from those of poorly served populations that tend to drop out early in ABE programs. Conceptual notions such as alienation, disengagement and resistance also help provide perspective in understanding drop-outs. Fagan's (1991) inclusion of life transitions and self-evaluation drew needed attention to aspects of participation and dropout

neglected in the theoretical literature.

Differences Between Drop-outs and Persisters

A few studies have used Patricia Cross' (1981) "Chain of Response Model" that categorized reasons for participation or nonparticipation in adult learning into situational, dispositional, and institutional. For example, the most significant differences between ABE/GED drop-outs and persisters were chiefly situational as found in the responses "trouble getting to class" and "stopped due to sickness" (Leonard, 1986). Cramer (1982) ran chi-square analyses on experiences of drop-outs vs. completers in a rural Ohio ABE program. She found that drop-outs more often had job conflicts, class scheduling problems, feelings of discouragement, and lack of progress. Completers reported less situational conflicts but did report more frequent feelings of fear. None of the demographic characteristics studied were significant variables. While Cross' model incorporated the concept of self-esteem, life events and transitions, it failed to represent the interactions among the variables that affect participation (Wikelund, Reder, & Hart-Landsberg, 1992).

Bosma (1988) ran discriminant analyses on 36 variables which emerged from intake questionnaires. The variables were grouped into personal and demographic information, employment information, educational history and achievement information, initial goals at admission, experience and

attitudes concerning computerized instruction, and program description. Of the total variables used to determine "degree of equivalence" between drop-out and persister characteristics, 17 were found to be significant but accounted for only 8 percent of the variance in dropout and persistence. This conclusion is similar to that of Anderson and Darkenwald (1979). However, studies lacking an explicit comprehensive theoretical framework which traces relationships among variables, should not be regarded as conclusive.

Boshier (1973) tested a "congruence" model for differentiating dropouts from persisters on a wide variety of adult education populations. According to Boshier "... dropout is in some ways an extension of non-participation; variables associated with one are associated with the other" (p. 258). Decisions involving both participating and dropping out are influenced by the interplay of psychological and environmental variables.

There are two classes of motivation to participate: growth motivation and deficiency motivation. Those motivated by growth look to adult education activities as a means of expressing inner needs and desires. They are "inner-directed, autonomous, willing to be spontaneous, creative, and free of deterministic attitudes" (Boshier, 1973; p. 256). The deficiency-motivated regard learning activities as a means for coping with social and

environmental pressures; they are "other-directed", and have an anxious dependence upon social and environmental forces for gratification of basic needs. Education has little or no intrinsic value, only a means to fulfill a goal or expectation.

Growth-motivated learners experience congruence between the actual self and ideal self in the educational environment, between self and others including the instructor. Their educational experience is satisfying and they are more likely to persist until their goals are fulfilled. Deficiency learners have poor congruence between the actual self as learner and ideal self; this causes incongruence between the self and others. They become dissatisfied with the educational setting and will likely drop out. Boshier argues that lower socio-economic persons are likely to be deficiency-oriented because educational institutions tend to reflect middle class values in contrast to those expressed among the lower classes. He concluded that no single variable can be used to explain variance between dropout and persistence. This model has been criticized for its fatalistic orientation and for not considering the capabilities of individuals to change their perspectives and circumstances (Wikelund, Reder, and Hart-Landsberg, 1992).

From a systems theory perspective which incorporated Boshier's congruence model, Garrison (1985) aimed to predict

dropout in adult basic education using school, nonschool and dispositional variables. Some important discriminating findings include students with low academic ability, low self-confidence, and unrealistic goal expectations. Social integration was also an important factor. Social integration referred to the learner's friendships with other learners and the amount of teacher support; it also referred to the extent to which the "school demands are integrated into the life space of the ABE student" (p.36) -- e.g., the extent to which the curriculum and administrative aspects of the program recognize and address the financial or family needs of learners.

Darkenwald (1981) reviewed research on dropout-persistence across a broad range of adult education activities. Variables that were considered as having explanatory or predictive power, many of them being interrelated, include:

1. Motivation, ability, self-confidence
2. Social and environmental factors:
    A. Situational factors such as transportation, schedule, illness; and
    B. Interpersonal factors such as social support from family, peer influence.
3. Expectations concerning the benefits to be derived, the process of learning, behavior of the teacher, and of other students.

4. Characteristics of the learning experience.
5. Evaluation of the learning experience; comparing expectations with reality.
6. Satisfaction with the learning experience.

Factors that had little explanatory or predictive power include socio-demographic characteristics, and psychological attributes (Darkenwald, 1981; p. 5).

While Darkenwald's conclusions apply to the persistence dropout phenomena at all levels of adult education, there may be support for some differences in significant variables when focussing on adult literacy or basic skills programs. Knibbe and Dusewicz (1990) found the following statistically significant effects on student retention: sex, age, ethnic membership, dependents, previous educational experience, handicapped, employment, and instructional level. Thus, when narrowing the focus to ABE drop-outs, socio-demographic characteristics should not be eliminated from consideration without additional research.

Process of Dropout

Charnley and Jones (1979) described a process by which low-literate adults become involved in literacy education and then drop out. It is akin to process of other so-called "marginal" groups such as homosexuals, or the physically disabled. Low-literature adults move from the experience of marginality in which they function as effectively as possible according to societal standards but are excluded

from society in various ways due to their status as low-literates. There is a perception of pressure to change (e.g., family, job requirements), gradual adoption of an attitude that change is possible, and, finally, an awareness of a developing "true self." They choose to "come out" and enroll in educational programs. However, the experience of exposing one's true self may prove to be overwhelming with the consequence of retreat, withdrawal.

Quigley (1992a) outlined stages of transformation experienced by high school drop-outs which provide insight to the experience of ABE non-participants as well as drop-outs. They begin at a point in which they are unaware of the choice to drop out, then awareness of being held against their will, awareness of their choice, breaking away and experiencing a return to freedom and control, and acceptance of their choice to drop out. As Popp (1991) discovered, this process may begin for many during the transition from elementary to middle school.

An increased understanding of the process by which ABE learners undergo the transition between participants to drop-outs would provide valuable guidance for teachers and program planners. Safeguards could be built into a program to respond better to the needs of learners or interventions instituted to reverse the process and assist them in achieving their original goals.

Relevance of Participation Research

A stream of research on participation in formal adult education activities represents a source of concepts in the study of persistency and dropout. Reasons for enrolling or not enrolling in adult education are related to decisions to persist or drop out (Boshier, 1973).

Harman (1977) regarded motivation underlying participation in formal learning as having two levels: the original motivation to participate and the subsequent motivations, in reaction to experiences with the program, to continue participation. Decisions involving both participating and dropping out are influenced by the interplay of psychological and environmental variables. Elements of an educational program that keep it from attracting participants with specific biographical, social, cultural or moral characteristics may be similar to those elements that precipitate early dropout of participants. For example, resisters who enroll in a program under compulsory conditions (e.g., required by employer or by public assistance program), will avoid compliance if the program fails to meet the immediate perceived interests and needs of the resister.

Darkenwald and Merriam (1982) proposed a model of participation that emphasized the interaction of personal psychological characteristics and social and environmental forces. Their model depicts generally recognized factors

that predetermine adult socio-economic status such as I.Q., gender, educational attainment, aspirations, values, family socio-economic status (SES), and parents' educational attainment. Factors that influence the probability of participation during adulthood include level of: SES, "learning press," perception of the value and utility of education, readiness to participate, stimulus to participate, and barriers to participation. Learning press refers to "the extent to which one's total current environment requires or encourages further learning" (Darkenwald & Merriam; p. 142). SES in adulthood has a direct impact on "learning press." Aspects of the environment that may compel further learning are social activities, occupation, and life-style all of which are influenced by SES. Learning press has a direct impact on the frequency and degree of "participation stimuli." For example, the advent of a new baby may prompt higher SES, expectant parents to take a class in childbirth and parenting. Potential barriers to participate may present themselves and be overcome depending upon SES, learning press and perceptions about education.

Lower SES individuals tend to be less involved in social organizations such as civic, cultural, religious, or recreational activities, and, therefore, experience relatively low learning press. With low learning press, the perceived value or utility of further adult education as

well as readiness to learn are also low. Among those with low social involvement, low perception of need and low readiness to learn, it would follow that there would be little or no stimulus to participate. While certain events (e.g., divorce, job loss) may propel those who value learning toward self-improvement through formal learning activities, those who place a low value on formal learning would be less likely to turn to adult education. The lower SES group tends to perceive more barriers to participation such as transportation, lack of child care, and fear of harassment from "significant others." Informational, institutional, situational, and psychosocial barriers are heightened among the lower SES group.

Lower SES persons enroll in adult education stemming from a variety of circumstances (e.g., self-improvement, job requirements, court orders, family pressure, human services requirements). If participation is externally induced and unwelcome, the perceived value of education will be low as well as readiness to learn and to persist once enrolled. Learning press may be high but participation stimuli such as the continuation of welfare payments or continued employment may be outweighed by a resistance to learning. Ability to cope with existing and new barriers to participation will tend to be low; likelihood of persistence of any duration will be low. Self-induced participation may be associated with a high perception of value of education, high readiness

to learn, and high motivation to persist. There will tend to be high motivation to cope with barriers; however, coping skills may be limited depending on the nature of the barrier and the resources available to overcome difficulties.

Darkenwald and Merriam suggested that two factors in their model can be influenced by adult educators: perceived value or utility of adult education and barriers to participation. To encourage persistence, once the adult learner has begun to participate, the onus to make the educational experience successful is shared by the learner and the educator. The responsibility of the educator is to provide an experience that matches or exceeds the expected value or utility of education and to assist the individual in anticipating and coping with barriers to continued participation.

Tinto's Model of Student Persistence/Dropout

Tinto's model of student departure from higher education institutions was derived from two sociological studies: Van Gennep's study of tribal rites of passage and Durkheim's social theory of egotistical suicide. To borrow Tinto's analogy, the passage to adulthood and persistence through adult literacy education may share similar phases: separation, transition and incorporation. Adult nonreaders begin to **separate** themselves from low-literate social reference groups that function on the perimeters of society. Perhaps, there is a realization that dependence on selected

members of the community to assist with basic day-to-day functioning is no longer viable; that it is necessary to carry on these functions for oneself. During **transition** from the initial perception of a need to change toward increasing independence, new attitudes and aspirations are tentatively embraced and new behaviors attempted that necessitate increased levels of literacy and greater assimilation into mainstream society. Finally, the individual becomes fully **incorporated** into society having accepted more of the values and behaviors of the mainstream literate culture.

Durkheim theorized that people commit egotistical suicide as a result of failure to become socially and intellectually integrated into society. Extending the analogy to ABE, those who drop out of a program tend to be those who fail to establish social membership and intellectual allegiance to the educational program and to the mainstream literate lifestyle. Persisters will have established key social relationships and intellectual ties to the program and to the dominant literate culture.

The ideas of Durkheim and Van Gennep are similar to the concept of the experience of marginality of low-literate adults as expounded in Charnley and Jones (1979). One moves from the experience of marginality in which one functions as much as possible according to societal standards but is excluded from society in various ways due to their low-

literate status. There is a perception of pressure to change (e.g., family, job requirements), gradual adoption of an attitude that change is possible, and, finally, an awareness of a developing "true self." One chooses to "come out" and enroll in a class. However, the experience of exposing one's true self, separate from the familiar supports and alone, may prove to be overwhelming with the consequence of retreat, departure.

Social and intellectual integration are necessary concepts in understanding persistence vs. departure according to Tinto. He explains that lack of social integration results from **incongruence** and **isolation.** To continue the ABE example, as some individuals interact within an ABE program and other institutions or activities associated with literacy, they "perceive themselves as being substantially at odds with" their surroundings (Tinto, 1987, p. 53). Isolation refers to the absence or low frequency of social interaction. Both incongruence and isolation are measures of poor social integration.

Summary

The review of literature presented an overview of ways in which dropout has been defined and of approaches for studying persistence and dropout. The major points may be summarized as follows:

ABE drop-outs as a group are diverse in terms of their motivations for participating in educational activities and

their reasons for dropping out. However, the concept of dropout and operational definitions of dropout have yet to be treated adequately in the literature.

Understanding of drop-outs should be considered in terms of timing of their departure and their reasons for departure. Timing of departure includes: chronologically from time of enrollment, and academically prior to completion of program or learners' objectives. Reasons for departure tend fall into dispositional, situational, and institutional categories.

Learners' negative perceptions about education must be overcome in order to experience success in further educational activities. Such perceptions are often traced to the period prior to middle school.

Persistence in an educational program is a process in which learners begin by separating themselves from former patterns of living. This is followed by a transition period entailing interaction and adaptation within the new environment. Finally, the individual becomes integrated or incorporated into a new literate way of life.

Dropout is a process in which learners attempt to move from a position of marginality within a culture to a gradual adoption of new patterns of living. A sense of incongruence within the social and/or intellectual climate of the new learning environment prevents successful integration of the

individual. The individual may drop out at any point along the continuum of learning.

Predictive models have managed to account for only eight to ten percent of the variance between persisters and dropouts. These models tend to lack an explicit comprehensive theoretical framework to guide research.

An adequate model of persistence and dropout cannot overlook the role of the individual, the educational institution and the overall cultural environment. Individuals have the capacity to change their perspectives and circumstances. Institutions are capable of modifying aspects of their academic and social systems. Cultural forces are capable of providing positive and negative climates for learning.

It was concluded that literature on ABE persistence and dropout is in need of a comprehensive model that encompasses the multiple factors involved in the process of persistence and dropout.

CHAPTER III

METHOD

Population and Sample

The data for this study were collected by the Center for Literacy Studies (CLS) at the University of Tennessee, Knoxville, for a longitudinal study of low-literate adults in Tennessee entitled, "Study of Adult Learners in Tennessee." The population for this study was comprised of adult basic education (ABE) learners from eight Tennessee counties, learners whose entering proficiency in basic reading, math, and writing skills was assessed at a level below sixth grade equivalency.

The non-probability sample was comprised of 133 ABE learners who agreed to be interviewed as part of the above study. The ABE participants were enrolled in three urban and five rural ABE programs between Fall 1991 and Summer 1992 and were assessed at the ABE-1 instructional level (grade equivalent scores from 0.0 to 5.9) according to standardized adult assessment materials administered by instructors. The sample used in the present study represents the first cohort of the CLS three-year project.

Among the 133 individuals who agreed to be interviewed, 54 percent were female, and 45 percent were male. This is almost identical to the U.S. Department of Education (USDOE) Adult Education Target Population of Tennessee's population age 16 and over and out of school who had no diploma or the

equivalent. Approximately 53 percent of that population were female and 46 percent were male (Research Triangle Institute, 1993).

More than half (58 percent) of the sample were Black, thirty-nine percent (39 percent) were White, and the remaining 3 percent of the sample considered themselves Hispanic, Asian, or another ethnic group. The USDOE target population was comprised as follows: Black, 17 percent; White, 39 percent; Hispanic, Asian, or other ethnic group, one percent. This overbalance of Black ABE learners in the sample is explained by the fact that the composition of the largest participating program in the study (one of the study sites) was predominantly Black.

The average age of the sample was 34.4 years, and the average last grade of school completed was eighth grade. Less than half (42 percent) of the sample was married. One-third of the sample was employed (33 percent). Among those working, 57 percent held semi-skilled occupations, 41 percent low-skilled and 2 percent skilled.

Procedure

This section describes the instrumentation, selection of sites for conducting the survey questionnaire, interview procedures, and data collection. Also included are descriptions and operationalizations of the variables in the present study.

Instrumentation

The intact baseline data set for the first cohort of the CLS Study of Adult Learners in Tennessee survey constituted the principal source of data. The baseline survey data were derived from the structured interview questionnaire developed for the CLS study entitled, "The ABE-1 Longitudinal Study: Baseline Interview." (See Appendix A.) The questionnaire instrument consisted of 126 questions on a variety of content areas -- personal characteristics, socio-economic background, family/home life, self-esteem, politics and community involvement, activities and attitudes concerning literacy, and physical well-being.

The questionnaire was constructed as a result of diverse information gathering methods including focus group discussions and planning meetings, literature reviews and several questionnaire draft versions. University faculty and CLS staff discussions of key areas of interest resulted in the formulation of hypotheses for the longitudinal study. These hypotheses concerned the many life domains which literacy education may influence. Focus groups with ABE learners were conducted to facilitate understanding of the actual experiences of program participants. Such groups were very useful in determining subject matter of questions, hypotheses, and format for asking questions in the questionnaire.

A multi-disciplinary group of experienced researchers examined and provided input for the questionnaire: a) practitioners in adult basic education, b) a professor of political science, c) a professor of sociology and demographer, d) two professors of adult education, and e) a professor of psychology. The investigator of the present study participated in the early stages of development for the baseline questionnaire by interviewing a focus group, conducting literature searches, and pilot testing the questionnaire. A computer analyst also reviewed and checked the coding scheme devised for the questionnaire.

The pilot questionnaire was developed from selections of surveys found in the literature review supplemented by questions developed by CLS staff following focus group discussions and planning meetings of faculty and CLS staff. The pilot questionnaire was administered to 13 ABE learners in seven of the eight sites chosen for the study to assess its face validity. Modifications were made on the basis of feedback from the pilot sample. The revisions involved correcting typographical errors and improving the layout of the questions to make the questionnaire easier for the interviewer to follow.

Site Selection

The basis for selecting program sites at which interviews were conducted is the "paired comparison technique" (Lieberson & Silverman, 1965). Six demographic

variables most relevant to this study were selected for comparison of counties in which state literacy programs were located; these included the percentage of non-white populations within the county, percentage of families living below the poverty level, unemployment rate, percentage of population change, percentage high school graduates 25 years and older, median years of school completed 25 years and older, and percentage of urban population. Region of the state was also important. The selection process resulted in three urban and five rural programs to represent East Tennessee, Middle Tennessee and West Tennessee.

Interview Procedures

Training sessions were held at every study site across the state with the individuals who would be administering the questionnaire. Literacy Coordinators and up to two instructors at each site administered the baseline questionnaires approximately within thirty days of initial enrollment.

Data Collection

All baseline interviews for the first cohort of the "Study of Adult Learners in Tennessee" were conducted during the 1991-92 school year. New learners completed one of three standardized basic skills assessments, the Slosson Diagnostic Math and Reading Tests, the Adult Basic Learning Examination (ABLE) and the Test of Adult Basic Education (TABE). Each of these assessments was designed to measure

basic reading, language arts, and mathematical skills. The choice of assessment instrument used with new learners for placement and achievement is made at the program level. Learners assessed at below sixth grade reading level according to one of these tests were asked to participate in the study. Because it was expected that ABE-1 learners could not read and comprehend the questionnaire adequately, the instructions, questions, and responses were read to the participant. In one exception, Section G, item 117 of the questionnaire, a respondent card was provided to permit participants to select their response. (See questionnaire, Appendix A.)

Each interview took approximately 30 to 40 minutes to complete and each was conducted within one month following enrollment. Because ABE programs permit open entry/open exit, new learners were added to the study as they enrolled throughout the year. Some programs completed the questionnaire during a special orientation for new learners, while others completed it as their schedule permitted. At the end of each month beginning in October 1991, each site mailed the completed interviews to CLS, until May 1992. Table 3.1. shows the percentages of the sample completed by month of the interview. Records do not show whether or not the participant had already attended classes by that time.

TABLE 3.1
MONTH AND YEAR OF BASELINE INTERVIEW
(PERCENT OF SAMPLE, n = 133)

MONTH OF INTERVIEW	n	PERCENT OF SAMPLE	CUMULATIVE PERCENT
SEPTEMBER 1991	8	6%	6%
OCTOBER 1991	8	6%	12%
NOVEMBER 1991	5	4%	16%
DECEMBER 1991	26	20%	35%
JANUARY 1992	18	13%	49%
FEBRUARY 1992	26	19%	68%
MARCH 1992	29	22%	90%
APRIL 1992	4	3%	93%
MAY 1992	0	0%	93%
JUNE 1992	9	7%	100%
TOTAL	133	100%	

Maintenance of Data and Completed Questionnaires

Questionnaire coding was handled in an orderly manner to avoid problems that result from coding error. Identification numbers were assigned upon receipt of the completed questionnaire. Coding was done directly on the questionnaires and then transferred to a code sheet. From the code sheet, the data were entered directly into a computerized data file.

To ensure confidentiality of the participants, the follow-up information sheets and the consent forms were separated from the actual questionnaires, stapled together,

and placed in a separate, secure file. Within a two-week period after the questionnaire was completed, the CLS conducted a random quality check by contacting the interviewee and verifying a sampling of responses.

The CLS director granted permission to the investigator to use the "Study of Adult Learners in Tennessee" project data set for the present study, which is a component study of the larger project. The objectives and procedures for the conduct of this study were approved by UTK's Committee on Research Participation, CRP #4204-A.

Description and Measurement of Variables

The baseline data set produced by the CLS longitudinal study provided the source of data for examining variables that influence persistence and dropout among ABE learners. Two cautionary notes should be made regarding the measures used in this study. First, the intent of the questionnaire used to collect the data was to determine the impact of state-supported literacy programs on the lives of ABE-1 learners. Therefore, the quantity of variables considered relevant to the problem of persistence and dropout was limited. Second, the reliability of the measures was threatened by the different types of response scales used in the questionnaire. The variety of possible outcomes in the form of attitude and behavior change included in the questionnaire necessitated different response scales and categories. It is possible, therefore, that the different

types of responses confused participants.

Variables of interest found in the questionnaire are divided into five phases as presented in the provisional model in Figure 1.1 of Chapter I.

Phase One: Pre-Enrollment Attributes which include family background, individual attributes, pre-ABE schooling.

Phase Two: Transition to Educational Program, including learning press, goal clarity, participation barriers, expectations concerning the educational experience, goal and program commitment.

Phase Three: Adult Learner-Literate Environment Interaction/Integration, including academic integration; social interaction (attendance); cultural interaction and cultural integration.

Phase Four: Learner Perspective, including subsequent goal and program commitment, participation barriers, perceptions and evaluation of the ABE experience.

Phase Five: Outcome: the resulting behavior, persistence or dropout.

The learner's persistence or act of dropping out of the ABE program is the variable of primary interest. Persisters are defined operationally as anyone who enrolled in ABE,

placed in ABE-1, and remained "active in the program" as of the end of the program year in June 1992. Drop-outs are defined as anyone who enrolled in ABE and placed in ABE-1 but was no longer "active in the program" as of June 1992. According to Boraks (1981), when adults drop out by the 19th, 39th or even the 90th hour, they have received only minimal instruction, that is, "...less instruction in an ABE setting than a grade school child who has been in school for one month" (p. 7). Therefore, it was assumed that more than one school year is necessary to improve basic skills or, advance from ABE-1 to ABE-2 Two (6.0 to 8.9 grade equivalent) or ABE-3 (9.0 to 12.9 grade equivalent).

Information on whether learners were still "active" was determined through telephone contacts with CLS interviewers who collected the data used in this study and with interviewers at the program sites. Telephone interviews with program sites concerning the "active" status of learners were conducted during the month of June 1992, the end of the first year of CLS's longitudinal study cohort. Perhaps, because this information was not a priority for the CLS longitudinal study, data on whether the learner was still active was received for only 111 of the 133 learners. Therefore, statistical analyses of differences between persisters and drop-outs were computed for the responses of only 111 participants, or 83.5 percent of the sample.

The operationalization of variables is presented in the Appendix B entitled, "Measurement of Variables." The majority of questions used for this research study was selected from the baseline questionnaire. These items are presented in Appendix B with the corresponding variables being measured.

Family background was represented by "parent's education." A categorical variable was set up to identify adult learners whose parents obtained a high school diploma or passed the GED and adult learners whose parents did not obtain either one.

Individual attributes was represented by the adult learner's sex, age at time of enrollment, racial or ethnic group, marital status at time of enrollment, hours of work and income (if employed), and self-esteem.

The individual attributes variable, "self-esteem," used to measure global feelings of self-worth, was Rosenberg's Self-Esteem Assessment (Rosenberg, 1965). The Rosenberg Self-Esteem Assessment (RSE) was included as Section D of the interview questionnaire (Appendix A).

The RSE was selected for its brevity, ease of administration as well as its reliability and validity values. Reliability measures for the 10-item scale include tests of internal consistency and test-retest coefficients. A .92 Coefficient of Reproducibility was reported in Rosenberg (1965), and Cronbach alpha's of .80 and .83 were

reported on studies of 116 parents (Orme, Reis, & Herz, 1986) and 873 civil servants (Schmitt & Bedeian 1982), respectively. Test-retest coefficients of .85 and .63 were reported by Silber and Tippett (1965) for a two-week interval on 28 college students and by Byrne (1983) for a seven-month interval on 990 urban Canadian high-school students.

Construct validity of the RSE has been examined in numerous studies since 1965. O'Brien's (1985) factor analytic check found a single factor with eigenvalue of 5.28 to account for 52.8 percent of the variance with no other factor carrying an eigenvalue of 1.00 or more. Strong factor loadings were found to range from .57 to .81 for the 10 items. A multitrait-multimethod matrix study demonstrated the RSE's discriminant and convergent validity among urban Canadian students in grades 11 and 12. The RSE's convergent validity coefficients were .79 with a measure of general self-concept and .64 with another self-concept scale, both published scales (Byrne & Shavelson, 1986).

Pre-ABE Schooling was measured in terms of the last grade of schooling completed as a child.

Learning Press was represented by several types of variables: "life satisfaction," "perception of the work environment," "personal literacy requirements," and "literacy requirements on the job." These types of

variables indicate the individual's extent of need or encouragement to improve basic skills.

Item #117 was the source for measurement of "life satisfaction." Five possible responses to Item #117 consisted of a range of facial expressions of feelings about "your life in general," and several aspects of their lives. This response format was adapted from a measurement study by Andrews and Withey (1976) which used similar questions about "life as a whole." The study compared several scales for measuring "well-being including scales using faces, circles, a ladder, seven-point satisfaction labels, and seven-point "delighted-to-terrible" labels. The faces, circles and "delighted-to-terrible" formats showed relatively high validity coefficients (.80), and low correlated error variance (8 percent).

The "perceptions of the work environment" variable used a Likert-type scale of agreement for Items #37 through #39 which are statements about satisfaction with the present job, perceived amount of responsibility at work, and perceived chances for promotion given their present skill level. Each of these items was analyzed separately and used to describe conditions on the job.

"Personal literacy requirements" and "literacy requirements on the job," the last variables representing "learning press," were measured using a four-point scale of frequency of occurrence, "regularly do" to "never do," with

Items #99, #104 through #107. These items state the need to memorize information due to inability to read (personal literacy requirements) and the need to read, write, and use numbers on the job (literacy requirements on the job).

Goal clarity refers to the certainty of the ABE learner's goals upon enrolling in the program. Responses to Item #14 of the questionnaire which is an open-ended question asking "What is the main reason you are enrolling in this program? ... Why?" furnished the basis for assessing "goal clarity." A transcript of all responses, which were typed verbatim from questionnaires, was read by two judges -- both graduate students and experienced researchers. The judges used a set of criteria designed by this investigator to rate each learner's goals as either "clear" or "unclear." (The List of Responses to Item #14 is available upon request to the investigator.)

A goal was to be rated "clear" if the response mentioned a desire to improve one or more basic skills or to obtain the GED certificate; in addition, the response had to include a specific educational, occupational, or other personal reason for wanting to achieve the goal. Statements that implied desire for the GED counted as "clear" because the certificate is the desired outcome for the vast majority of ABE learners. Examples of specific reasons included wanting to help children in school, needing the GED to keep a present job or to prepare for further education or

training, and to improve themselves. "Unclear" goals included statements about being sent by a social service agency, about needing GED certification to find a better job, or about wanting to "better" themselves. Unspecific responses that failed to identify type of employment or direction of pursuit were considered "unclear." Because the goal clarity variable was based upon nominal scale agreement, the kappa statistic developed by Cohen (1960) was calculated to assess inter-rater reliability of the judges' results. Kappa is the proportion of agreement after eliminating chance agreement from consideration. The kappa value for goal clarity was 0.90.

Academic integration was measured by self-reported frequency with which the individual reads magazines, newspapers, or books (Item #94) and frequency with which individuals with children at home read books to their children (Item #95). These two items have been labeled "academic literacy activities" and represent behaviors typically associated with literacy acquisition (e.g., reading, teaching the value of reading to children) that have been integrated by learners into daily behavioral patterns.

Social interaction was measured by average number of instruction hours in which learners were present since the time of enrollment. This information was obtained by CLS in June 1992 for participants in the first cohort. Attendance

represents social interaction under the assumption that the longer students are involved in educational activities, the more social interaction that will occur.

Cultural interaction was represented by three classes of variables: "involvement in child's school work," "community involvement," and "community-oriented literacy activities." Each of these classes refer to self-reported behaviors that indicate the extent to which literacy is an integral part of the individual's daily life. "Involvement in child's school work" is measured using Items #54 and #55 to determine the frequency with which adult learners with children help them with their homework and talk with them about school. "Community involvement" is measured by Item #82 and #83 to determine whether respondents were registered to vote. It was also represented by self-reported level of activity in a club or organization. "Community-oriented literacy activities" was represented Items #93, #98, and #101; these items include activities which provide opportunities to use one's literacy skills, e.g., using the library, talking with neighbors, and attending community meetings. Variables identified under "cultural interaction" refer to activities that utilize basic skills; they were included under the assumption that the above activities represent the practical use of basic literacy skills for daily living.

Cultural integration was represented by a class of items labeled "literacy attitudes." Literacy attitudes were measured using Items #62, #63, #65, #67, and #70. Items #62, #63 and #65 were taken from Heathington, Gambrell, and Boser (1986). The "Items of Adult Beginning Reader Inventory of Beliefs, Feelings and Behaviors" by Heathington, Gambrell and Boser, was recommended as an assessment of attitudes toward reading. The inventory's Cronbach alpha reliability coefficients with corresponding attitudinal dimensions ranged from .59 for belief items to .73 for feeling items, and .74 for behavior items. Each of the "literacy attitudes" items refer to the level of agreement learners have with statements about the benefits of reading and schooling. It was assumed in including these items that attitudes were a measure of the extent to which people identify with or experience congruence with the literate culture.

Analysis of Data

The data collected on persistence and dropout, parents' education, gender, marital status, race, and goal clarity were treated as nominal-level data. Data on life satisfaction, perceptions of the work environment, personal literacy requirements, literacy requirements on the job, academic literacy activities, involvement in child's school work, community involvement, community-oriented literacy activities and literacy attitudes were treated as ordinal-

level data. Data collected on instructional hours, age, pay, working hours, grade completed and self-esteem were treated as interval-level data.

To test for significance, the one-factor analysis of variance, t-test, Pearson product-moment correlation coefficient, chi-square, Mann-Whitney U test, and Spearman's rank-order correlation coefficient were used. The above tests were also used in determining whether to reject null hypotheses at the .05 level of significance. Not all of the requirements were satisfied for the valid use of the parametric statistics. The requirement of randomness was not met, thus rendering as speculative any probability statements in connection with the inferences made. However, because the study had an exploratory purpose in which indications of differences between and relationships among candidate variables were pursued, the inferential statistics together with the nonparametric statistics were considered to be acceptable.

The one-factor analysis of variance (ANOVA) test was used to ascertain the extent of group differences between:

(a) persisters and drop-outs in terms of age, rate of pay among employed learners, self-esteem scores, years of formal schooling, hours of attendance in ABE (hypotheses #3, #7, #8, #9, #19, respectively);

(b) learners who had clear goals and learners who had unclear goals in terms of self-esteem and hours of attendance (hypotheses #14, #23); and

(c) males and females, Whites and Blacks, married and not married learners in terms of hours of attendance (hypotheses #20, #21, and #22).

The t-test was used in hypothesis #6 to ascertain the presence of a significant difference in the mean working hours of persisters and the mean working hours of drop-outs.

For hypotheses #1, #2, #4, #5, #13, the chi-square (x^2) was used to determine whether there was a significant difference in the distribution among persisters and drop-outs regarding parental attainment of a high school diploma or GED; gender; race; marital status; and goal clarity. The chi-square was also used to determine whether there was a difference in the distribution among Whites and Blacks of those registered to vote as a proxy variable for cultural interaction (hypothesis #38).

The Mann-Whitney U was used to test the differences between persisters and drop-outs regarding personal literacy requirements and literacy requirements on the job (hypotheses #10A, #10B, #10C, #10D); academic literacy activities (hypotheses #18A and #18B); involvement with child's school work (hypotheses #29A and #29B); community involvement (hypothesis #32); community-oriented literacy activities (hypothesis #39); and literacy attitudes

(hypotheses #40A, #40B, #40C). The U test was also conducted comparing learners who had clear goals and those with unclear goals using rankings on life satisfaction and work environment, (hypotheses #15, #16A, #16B, #16C) and personal literacy requirements and literacy requirements on the job (hypotheses #17A, #17B, #17C); comparing learners whose parents obtained a diploma or GED with learners whose parents did not, using rankings on involvement with child's school work (hypotheses #31A, #31B) and community-oriented literacy activities (hypothesis #41); comparing males and females on community involvement and community-oriented literacy activities (hypotheses #33, #36, respectively); comparing Whites and Blacks on community-oriented literacy activities (hypothesis #37); and comparing married and not married learners on community-oriented literacy activities (hypothesis #38). Data obtain from the questionnaire on community involvement variables were responses from an ordinal scale ranging from "1" to "4" or from "1" to "5" depending on the variable. (Refer to Appendix B.) The data on each variable were ranked by the groups being compared, e.g., persisters vs. drop-outs.

The Spearman rank-order correlation coefficient (rho) was used to measure whether associations existed between self-esteem and life satisfaction, self-esteem and job satisfaction, self-esteem and attendance, and self-esteem and attitudes toward literacy (hypotheses #11, #12A, #12B,

#12C, #12D, #26, #42); between attendance and literacy activities (hypothesis #28); between attitudes toward literacy and involvement in child's school work (hypotheses #30A, #30B); and between life satisfaction and community involvement (hypothesis #34).

Finally, the Pearson product-moment correlation coefficient (r) was used to measure the correlation between attendance and age, attendance and rate of pay, and attendance and grade completed (hypotheses #24, #25, #27). The Pearson correlation is tested for significance by showing whether the observed correlation value differs from zero only by chance, using the t-test.

The size of the n differed according to the variables being analyzed. Analyses using variables as groups other than persisters vs. drop-outs, i.e., sex, marital status, race, were based on the full sample. Some analyses compared groups on variables concerning their young children or job. In group comparisons with respect to variables concerning their young children or their job, only learners who had children under age 18 (n=73) or who were currently employed (n=44) were included. Comparisons by racial groups included only Whites and Blacks due to low representation by Asian, Hispanic, and Native American (3 percent). Comparisons by family background used the educational attainment of the learners' parents. Two categories were used: parents who received a high school diploma or who later received a GED

certificate vs. parents who left school before receiving a diploma and who never received a GED certificate. Not all participants were able to provide this information on both parents, but data were available on at least one parent of 117 learners (88 percent of the sample). The results were presented in tables shown in Chapter IV.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

This study was designed to provide a comprehensive, theoretically-based provisional model to explain persistence and dropout among learners in adult basic education. A secondary data source was used as the basis for analyzing the potential usefulness of each candidate factor in the provisional model. The data source was developed from an interview questionnaire conducted at the time of enrollment in ABE programs across Tennessee, and data were obtained on characteristics, attitudes, beliefs, and behaviors of ABE learners. Primarily non-parametric statistics were used to determine differences between persisters and drop-outs in the areas of family background, personal characteristics, prior schooling, learning press, goal clarity, academic integration, social interaction, cultural interaction, and cultural integration. Analyses were conducted of the relationships and group differences (i.e., gender, ethnic group, marital status, parents' education level, and goal clarity) among these variables.

Analyses and interpretation of the findings are presented in the order in which the hypotheses were presented in Chapter I. The hypotheses are grouped according to phase in the provisional model and the classes of variables within each phase.

The presentation begins with the differences between

persisters and drop-outs in Phase 1, Pre-enrollment Attributes (i.e., family background, individual attributes, and pre-ABE schooling). The presentation on Phase 2, variables involving transition to the educational program, includes the differences between persisters and drop-outs in terms of clarity of goals and learning press. Analyses were also conducted to determine statistical relationships and differences between Phase 1 and Phase 2 variables. This same pattern of presentation was followed between Phase 2 to Phase 3 and between Phase 1 and Phase 3 involving the interaction between the learner and the literate environment. It was necessary to examine variables between phases to ascertain inter-relationships between and group differences among variables that affect persisters or drop-outs.

Phase 1. Pre-Enrollment Attributes

Phase 1 variables were examined to determine whether differences exist between persisters and drop-outs in terms of their parents' educational attainment, the learners' personal characteristics, and years of formal schooling completed.

Family Background

Ho 1: There is no statistically significant difference between persisters and drop-outs in terms of whether or not their parents obtained a high school diploma/GED certificate.

The distribution among persisters and drop-outs of parents who obtained a high school diploma/GED is shown in Table 4.1. The analysis resulted in a chi-square value of 0.238. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value is below this, the null hypothesis was not rejected.

TABLE 4.1
PERCENTAGES OF PERSISTERS AND DROP-OUTS
WHOSE PARENTS OBTAINED A DIPLOMA OR GED
(Ho 1)

Educational Attainment of Learner's Parent	Outcome		Totals
	Persisters	Drop-Outs	
H.S. Diploma or GED	22 (34.4%)	13 (39.4%)	35
No Diploma or GED	42 (65.6%)	20 (60.6%)	62
Totals	64	33	97

X^2=0.238 < 3.84 with 1 df., p >.05.

Individual Attributes

Ho 2: There is no statistically significant difference between persisters and drop-outs in terms of gender.

The distribution among persisters and drop-outs of males and females in the sample is presented in Table 4.2. The analysis resulted in a chi-square value of 1.999. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value is below this, the null hypothesis was not rejected.

TABLE 4.2
PERCENTAGES OF PERSISTERS AND DROP-OUTS
BY GENDER
(Ho 2)

Gender	Outcome		Totals
	Persisters	Drop-Outs	
Male	34 (47.2%)	13 (33.3%)	47
Female	38 (52.8%)	26 (66.7%)	64
Totals	72	39	111

X^2=1.999 < 3.84 with 1 df., p >.05.

Ho 3: There is no statistically significant difference between persisters and drop-outs in terms of their mean age.

The analysis of variance (ANOVA) was used to compare mean ages of persisters and drop-outs. Table 4.3 shows the mean ages and standard deviations for the two groups. Table 4.4 shows the computed value of F which is 0.04. The F value with 1 and 108 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is less than this, the null hypothesis was not rejected.

TABLE 4.3
MEANS FOR AGE OF PERSISTERS AND DROP-OUTS
(Ho 3)

Group	N	Age	
		Mean	SD
Persisters	72	35.4 yrs.	14.0
Drop-Outs	38	34.9 yrs.	15.7

TABLE 4.4
ANALYSIS OF VARIANCE FOR MEAN AGE
OF PERSISTERS AND DROP-OUTS
(Ho 3)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Age	1	7.52	7.52	0.04	0.8517
Error	108	23123.87	214.11		

$F=0.04 < 4.00$ with 1 and 108 df., $p > .05$.

Ho 4: There is no statistically significant difference between persisters and drop-outs in terms of race.

The distribution among persisters and drop-outs of White and Black ABE learners is presented in Table 4.5. The analysis resulted in a chi-square value of 1.261. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value is below this value, the null hypothesis was not rejected.

TABLE 4.5
PERCENTAGES OF PERSISTERS AND DROP-OUTS
BY RACE
(Ho 4)

Race	Outcome		Totals
	Persisters	Drop-Outs	
White	24 (33.8%)	47 (66.2%)	71
Black	17 (44.7%)	21 (55.3%)	38
Totals	41	68	109

$X^2=1.261 < 3.84$ with 1 df., $p > .05$.

Ho 5: There is no statistically significant difference between persisters and drop-outs in terms of marital status.

The distribution among persisters and drop-outs of ABE

learners who are married and not married is significantly different as shown in Table 4.6. The analysis resulted in a chi-square value of 4.067. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value exceeds this value, the null hypothesis was rejected. A higher percentage of persisters than drop-outs were married; conversely, a higher percentage of drop-outs were not married.

TABLE 4.6
PERCENTAGES OF PERSISTERS AND DROP-OUTS
BY MARITAL STATUS
(Ho 5)

	Outcome		
Marital Status	Persisters	Drop-Outs	Totals
Married	36 (50.7%)	35 (49.3%)	71
Not Married	12 (30.8%)	27 (69.2%)	39
Totals	48	62	110

X^2=4.067 > 3.84 with 1 df., p <.05.

Ho 6: There is no statistically significant difference between persisters and drop-outs in terms of average work hours.

Table 4.7 shows the mean hours worked by persisters and drop-outs. A t-test was performed to determine if the mean number of working hours was greater for one group than the other. The analysis resulted in a t value of 0.119. The value of t with 36 degrees of freedom required for significance at the .05 level was 1.699. Because the

calculated t value is below this value, the null hypothesis was not rejected.

TABLE 4.7
COMPARISON OF MEAN WORKWEEK HOURS
BY PERSISTERS AND DROP-OUTS FROM ABE
(Ho 6)

Group	N	Workweek Hours	
		Mean	SD
Persisters	32	38.7	15.84
Drop-Outs	6	37.9	9.80

X^2=0.119 < 1.699 with 36 df., p >.05.

Ho 7: There is no statistically significant difference between persisters and drop-outs in terms of mean rate of pay earned.

A one-factor analysis of variance (ANOVA) was used to compare persisters and drop-outs with respect to mean rate of pay. Table 4.8 shows the mean pay and standard deviations of both groups. Table 4.9 shows the computed value of F which is 0.25. The F value with 1 and 34 degrees of freedom required for significance at the .05 level is 4.17. Because the computed value is less than this, the null hypothesis was not rejected.

TABLE 4.8
RATE OF PAY OF PERSISTERS AND DROP-OUTS
(Ho 7)

Group	N	Rate of Pay	
		Mean	SD
Persisters	30	6.62	2.76
Drop-Outs	6	6.02	2.42

TABLE 4.9
ANALYSIS OF VARIANCE FOR
MEAN RATE OF PAY OF PERSISTERS AND DROP-OUTS
(Ho 7)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Rate of pay	1	1.83	1.83	0.25	0.6207
Error	34	249.99	7.35		

$F=0.25 < 4.17$ with 1 and 34 df., $p > .05$.

Ho 8: There is no statistically significant difference between persisters and drop-outs in terms of their mean self-esteem scores.

A one-factor analysis of variance was used to compare persisters and dropouts with respect to their mean self-esteem scores. Table 4.10 shows the mean self-esteem scores and standard deviations of both groups. Table 4.11 shows the computed value of F which is 0.79. The F value with 1 and 103 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is less than this, the null hypothesis was not rejected.

TABLE 4.10
MEAN SELF-ESTEEM SCORES OF PERSISTERS AND DROP-OUTS
(Ho 8)

Group	N	Self-Esteem Mean	SD
Persisters	68	3.64	0.62
Drop-Outs	37	3.76	0.69

TABLE 4.11
ANALYSIS OF VARIANCE FOR
MEAN SELF-ESTEEM SCORES OF PERSISTERS AND DROP-OUTS
(Ho 8)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Self-Esteem	1	0.34	0.34	0.79	0.3749
Error	103	43.47	0.42		

$F=0.79 < 4.00$ with 1 and 103 df., $p > .05$.

Pre-ABE Schooling

Ho 9: There is no statistically significant difference between persisters and drop-outs in terms of mean years of formal schooling completed.

A one-factor analysis of variance was used to compare persisters and dropouts in terms of their mean years of formal schooling completed. Table 4.12 shows the mean years of formal schooling completed by persisters and drop-outs. Table 4.13 shows the computed value of F which is 0.74. The F value with 1 and 103 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is less than this, the null hypothesis was not rejected.

TABLE 4.12
MEAN YEARS OF FORMAL SCHOOLING COMPLETED
BY PERSISTERS AND DROP-OUTS
(Ho 9)

Group	N	Years of School Completed Mean	SD
Persisters	72	8.62	2.65
Drop-Outs	38	8.18	2.37

TABLE 4.13
ANALYSIS OF VARIANCE FOR
MEAN YEARS OF FORMAL SCHOOLING COMPLETED
BY PERSISTERS AND DROP-OUTS
(Ho 9)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Years of Schooling	1	4.83	4.83	0.74	0.3913
Error	103	704.59	6.52		

$F=0.74 < 4.00$ with 1 and 103 df., $p > .05$.

Summary of Phase 1 Results

Statistically significant differences existed between persisters and drop-outs in terms of their marital status. A significantly larger percentage of persisters were married than not married; a significantly larger percentage of drop-outs were not married than married. No significant differences between persisters and drop-outs were found in terms of parents' education, gender, race, working hours, pay rate, self-esteem, and years of formal schooling.

Phase 2. Transition to Educational Program

In this section, hypotheses deal with learning press and goal clarity. Learning press is the extent to which one's lifestyle or environment stimulated the need for learning. Goal clarity refers to the certainty of the individual's educational goals. The data set was analyzed in terms of differences between persisters and drop-outs and between learners with clear goals and learners with unclear goals.

Learning Press

Learning press was represented by several variables: personal literacy requirements, perceptions of the work environment, and life satisfaction. Both personal literacy requirements and perceptions of the work environment were comprised of several facets. Personal literacy requirements dealt with having to memorize information to compensate for poor literacy skills. Literacy requirements on the job dealt with having to read, write and use numbers on the job; each was analyzed separately. Perceptions of the work environment were comprised of statements, also analyzed separately, about satisfaction with the present job, the amount of responsibility at work, and chances for promotion given the learner's present skill level.

The next four hypotheses addressed personal literacy requirements and literacy requirements on the job.

Ho 10A: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they need to memorize information they cannot read.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs on their responses to personal literacy requirements and literacy requirements on the job. Table 4.14 presents the analysis of ranked data for the comparison between persisters and drop-outs on the need to memorize important information to compensate for inability to read. The analysis resulted in a computed z of -0.81. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.14
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF HAVING TO MEMORIZE INFORMATION
(Ho 10A)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	38	1979.6	1497.5	
Persisters	72	4125.5	1238.5	-.81

$z=-0.81 < 1.65$, $p > .05$.

Ho 10B: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they have problems understanding rules and regulations at work.

The Mann-Whitney U Test was used to determine if significant differences existed between employed persisters and drop-outs in terms of the frequency with which they experience problems understanding rules and regulations at work. Table 4.15 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of -0.55. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.15
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF HAVING PROBLEMS
WITH RULES AND REGULATIONS AT WORK
(Ho 10B)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	6	97.0	56.0	
Persisters	22	319.0	66.0	-.55

$z=-0.55 < 1.65$, $p > .05$.

Ho 10C: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they need to write on the job.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they must write down information as part of their job. Table 4.16 presents the analysis of ranked data for the comparison between the

two groups. The analysis resulted in a computed z of -0.17. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.16
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF HAVING TO WRITE ON THE JOB
(Ho 10C)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	6	99.5	71.5	
Persisters	25	396.5	78.5	-.17

$z=-0.17 < 1.65$, $p > .05$.

Ho 10D: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they need to read on the job.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they must read as part of their job. Table 4.17 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of -0.22. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.17
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF HAVING TO READ ON THE JOB
(Ho 10D)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	6	100.5	71.5	
Persisters	25	395.5	79.5	-.22

$z=-0.22 < 1.65$, $p > .05$.

Ho 11: There is no statistically significant correlation between rankings on self-esteem scores and the life satisfaction scale.

Spearman's rank-order correlation was used to determine the correlation between rankings of self-esteem scores and self-rating of life satisfaction. Table 4.18 shows that the correlation between self-esteem scores and self-rated feelings about life in general is .26. A t-test for the strength of the association resulted in a computed t of 1.74. The t value with 42 degrees of freedom required for significance at the .05 level is 1.684. Because the computed value exceeds this, the null hypothesis was rejected. There is a significant positive correlation between self-esteem and life satisfaction.

TABLE 4.18
SPEARMAN CORRELATION BETWEEN
SELF-ESTEEM SCORES AND LIFE SATISFACTION
(Ho 11)

Self-esteem score	n=44	
Feelings about life in general	n=44	rho= .26*

t=1.74 > 1.684 with 42 df., p < .05.

The next three hypotheses dealt with perceptions of the work environment by employed ABE learners. Perceptions of the work environment included job satisfaction, perceived level of job responsibility, and perceived chances for promotion given their present skills.

Ho 12A: There is no statistically significant correlation between rankings on the self-esteem scores and on the job satisfaction.

Spearman's rank-order correlation was used to ascertain the association between rankings of self-esteem scores and satisfaction with present job. Table 4.19 shows that the correlation between self-esteem and job satisfaction was 0.28. A t-test for the strength of the association resulted in a computed t of 1.87. The t value with 41 degrees of freedom required for significance at the .05 level is 1.684. Because the computed value exceeds this, the null hypothesis was rejected. There is a significant positive correlation between self-esteem and satisfaction with their job.

TABLE 4.19
SPEARMAN CORRELATION BETWEEN
SELF-ESTEEM SCORES AND JOB SATISFACTION
(Ho 12A)

Self-esteem scores	n=44	
Satisfaction with job	n=43	rho=.28*

t=1.87 > 1.684 with 41 df., p < .05.

Ho 12B: There is no statistically significant correlation between rankings on self-esteem scores and self-ratings of amount of responsibility on the job.

Spearman's rank-order correlation was used to ascertain the relationship between rankings of self-esteem scores and self-ratings concerning the amount of responsibility on the job. Table 4.20 shows that the correlation between self-esteem and job responsibility was 0.27. A t-test for the strength of the association resulted in a computed t of 1.80. The t value with 41 degrees of freedom required for significance at the .05 level is 1.684. Because the computed value exceeds this, the null hypothesis was rejected. There is a significant positive relationship between self-esteem and self-ratings of responsibility at work.

TABLE 4.20
SPEARMAN CORRELATION BETWEEN
SELF-ESTEEM SCORES AND SELF-RATINGS OF JOB RESPONSIBILITY
(Ho 12B)

Self-esteem scores	n-44	
Responsibility at work	n=43	rho=.27*

t=1.80 > 1.684 with 41 df., p < .05.

Ho 12C: There is no statistically significant correlation between ranked self-esteem scores and self-ratings of chance for promotion given their present skill level.

Spearman's rank-order correlation was used to determine the relationship between rankings of self-esteem scores and self-rated chances for promotion. Table 4.21 shows that the correlation between self-esteem and perceived chance for promotion was -0.05. A t-test for the strength of the association resulted in a computed t of 0.32. The t value with 42 degrees of freedom required for significance at the .05 level is 1.684. Because the computed value is less than this, the null hypothesis was not rejected.

TABLE 4.21
SPEARMAN CORRELATIONS BETWEEN
SELF-ESTEEM SCORES AND SELF-RATINGS OF CHANCE FOR PROMOTION
(Ho 12C)

Self-esteem scores	n=44	
Chance for promotion given skills.	n=44	rho= -.05

t=0.32 < 1.684 with 42 df., p > .05.

Goal Clarity

Goal clarity was examined in terms of learners who had clear goals and learners who had unclear goals upon enrollment in their ABE program. Differences in learners' goal clarity (clear goals vs. unclear goals) were compared in terms of percentage of persisters and drop-outs, self-esteem scores, life satisfaction, chance for promotion, personal literacy requirements, and literacy requirements on the job.

Ho 13: Persisters and drop-outs do not differ in terms of whether they have clear educational goals.

Table 4.22 presents the distribution among persisters and drop-outs who had clear goals and those who had unclear goals. The analysis resulted in a chi-square value of 1.668. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value is below this, the null hypothesis was not rejected.

TABLE 4.22
PERCENTAGES OF PERSISTERS AND DROP-OUTS
BY GOAL CLARITY
(Ho 13)

	Outcome		
Goal Clarity	Persisters	Drop-Outs	Totals
Clear	46 (63.9%)	26 (36.1%)	72
Unclear	20 (51.3%)	19 (48.7%)	39
Totals	66	45	111

X^2=1.668 < 3.84 with 1 df., p >.05.

Ho 14: There is no statistically significant difference in self-esteem between ABE learners with clear goals and learners with unclear goals.

A one-factor analysis of variance was used to compare learners with clear goals and those with unclear goals in terms of their self-esteem scores. Table 4.23 shows mean self-esteem scores for each group. Table 4.24 shows the computed value of F which is 2.75. The F value with 1 and 123 degrees of freedom required for significance at the .05 level is 3.92. Because the computed value is less than

this, the null hypothesis was not rejected.

TABLE 4.23
MEAN SELF-ESTEEM SCORES OF ABE LEARNERS
BY GOAL CLARITY
(Ho 14)

Group	N	Self-Esteem Score Mean	SD
Clear Goals	75	3.72	0.66
Unclear Goals	50	3.54	0.59

TABLE 4.24
ANALYSIS OF VARIANCE FOR
SELF-ESTEEM SCORE BY GOAL CLARITY
(Ho 14)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Self-Esteem Score	1	1.11	1.11	2.75	0.1001
Error	123	49.55	0.40		

F=2.75 < 3.92 with 1 and 123 df., p > .05.

Ho 15: There is no statistically significant difference between ABE learners with clear goals and learners with unclear goals in terms of their degree of life satisfaction.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals in terms of their degree of life satisfaction. Table 4.25 presents the analysis of ranked data for the comparison between the two groups in terms of self-ratings of their "feelings about life in general." The analysis resulted in a computed z of 1.37. The value of z required for significance at the .05 level

was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.25
COMPARISON BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKED FEELINGS ABOUT LIFE IN GENERAL
(Ho 15)

Group	Group Size	Sum of Rankings	U	z
Unclear	51	3007.5	2240.5	
Clear	77	5248.5	1681.5	1.37

$z=1.37 < 1.65$, $p > .05$.

The next three hypotheses address the relationship between goal clarity and learners' perceptions of their work environment.

Ho 16A: There is no statistically significant difference between ABE learners with clear goals and those with unclear goals in terms of their job satisfaction.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals in degree of job satisfaction. Table 4.26 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of 0.83. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.26
COMPARISON BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKINGS OF JOB SATISFACTION
(Ho 16A)

Group	Group Size	Sum of Rankings	U	z
Unclear	10	247.0	138.0	
Clear	33	699.0	192.0	.83

$z=0.83 < 1.65$, $p > .05$.

Ho 16B: There is no statistically significant difference between ABE learners with clear goals and learners with unclear goals in terms of self-ratings of their level of responsibility at work.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals in terms of self-ratings of their level of responsibility at work. Table 4.27 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of 0.09. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.27
COMPARISON BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKED SELF-RATINGS OF RESPONSIBILITY AT WORK
(Ho 16B)

Group	Group Size	Sum of Rankings	U	z
Unclear	10	223.0	162.0	
Clear	33	723.0	168.0	.09

$z=.09 < 1.65$, $p > .05$.

Ho 16C: There is no statistically significant difference between ABE learners with clear goals and learners with unclear goals in terms of their self-rated chance for promotion given their present skill level.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals in terms of their self-rated chance for promotion given present skill level. Table 4.28 presents the analysis of ranked data for the comparison between the two groups in terms of self-ratings of their chance for promotion. The analysis resulted in a computed z of 1.907. The value of z required for significance at the .05 level was 1.65. Because the calculated z value exceeds this, the null hypothesis was rejected. Learners with clear goals rated their chances for promotion, given their present skill level, higher than learners with unclear goals rated their chances.

TABLE 4.28
COMPARISON BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKED SELF-RATINGS OF CHANCE FOR PROMOTION, GIVEN SKILLS
(Ho 16C)

Group	Group Size	Sum of Rankings	U	z
Unclear	10	293.0	102.0*	
Clear	34	697.0	238.0*	1.907

z=1.907 > 1.65, p <.05.

The next three hypotheses deal with the relationship between goal clarity and personal literacy requirements and literacy requirements on the job.

Ho 17A: There is no statistically significant difference between learners with clear goals and those with unclear goals in terms of the frequency with which they must memorize information they cannot read.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals in terms of having to memorize important information due to their inability to read. Table 4.29 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of -0.24. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.29
COMPARISONS BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKED FREQUENCY OF HAVING TO MEMORIZE INFORMATION
(Ho 17A)

Group	Group Size	Sum of Rankings	U	z
Unclear	51	3291.0	2064.0	
Clear	79	5224.0	1965.0	-.24

$z=-0.24 < 1.65$, $p > .05$.

Ho 17B: There is no statistically significant difference between learners with clear goals and learners with unclear goals in terms of the frequency with which they must write on the job.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals with respect to the frequency with which they must write to complete their tasks on the job. Table 4.30 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of .84. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.30
COMPARISONS BETWEEN
LEARNERS WITH CLEAR GOALS AND THOSE WITH UNCLEAR GOALS:
RANKED FREQUENCY OF HAVING TO WRITE ON THE JOB
(Ho 17B)

Group	Group Size	Sum of Rankings	U	z
Unclear	10	214.0	111.0	
Clear	27	489.0	159.0	.84

$z=0.84 < 1.65$, $p > .05$.

Ho 17C: There is no statistically significant difference between ABE learners with clear goals and learners with unclear goals in terms of the frequency with which they must read on the job.

The Mann-Whitney U Test was used to determine if significant differences existed between learners with clear goals and those with unclear goals with respect to the frequency of having to read on the job. Table 4.31 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of 1.37. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.31
COMPARISONS BETWEEN
LEARNERS WHO HAVE CLEAR GOALS AND THOSE HAVE UNCLEAR GOALS:
RANKED FREQUENCY OF HAVING TO READ ON THE JOB
(Ho 17C)

Group	Group Size	Sum of Rankings	U	z
Unclear	10	230.0	95.0	
Clear	27	473.0	175.0	1.37

$z=1.37 < 1.65$, $p > .05$.

Summary of Phase 2 Results

Learning Press. No significant differences were found between persisters and drop-outs with respect to personal literacy requirements. The two groups did not differ in terms of the frequency with which they must memorize important information because they are unable to read without assistance (Ho 10A). No significant differences were found between persisters and drop-outs in terms of literacy requirements on the job. The two groups did not differ in their frequency of having problems with rules and regulations on the job (Ho 10B), having to write on the job (Ho 10C), and having to read on the job (Ho 10D).

A significant correlation was found between life-satisfaction and self-esteem (Ho 11). The more positively they feel about life in general, the higher their self-esteem. Two aspects of their perceptions of the work environment correlated significantly with self-esteem. The higher their self-esteem, the more satisfied employed

learners are about their jobs (Ho 12A) and the more responsibility they perceive themselves having on the job (Ho 12B). No significant correlation was found between self-esteem and perceived chance for promotion (Ho 12C).

Goal Clarity. No significant differences were found among persisters and drop-outs in terms of whether they had clear goals at the time of enrollment (Ho 13). Whether learners had clear goals or unclear goals did not make a difference in terms of self-esteem (Ho 14), life satisfaction (Ho 15), job satisfaction (Ho 16A), or self-ratings of level of responsibility on the job (Ho 16B). A significant relationship between goal clarity and perceptions of the work environment was found in terms of self-ratings of their chance for promotion (Ho 16C). Learners with clear goals rated their chances for promotion, given their present skill level, higher than learners with unclear goals rated their chances.

No significant relationship was found between goal clarity and personal literacy requirements or between goal clarity and literacy requirements on the job. Whether learners had clear goals or unclear goals made no difference regarding frequency of having to memorize information to compensate for inability to read (Ho 17A), having to write on the job (Ho 17B), and having to read on the job (Ho 17C).

Phase 3. Interaction and Integration of the Adult Learner with the Literate Environment

Phase 3 deals with the relationship adult learners had with the academic and social systems of education and the larger cultural system of society. Included are the frequency and types of social and cultural interaction in which adult learners engage. Also included is the extent to which adults were integrated into the academic, social and cultural systems of literacy.

Academic Integration

Academic integration is represented by academic literacy activities as an indicator that learners have incorporated into the home life elements associated with the pursuit of learning. Aspects of academic literacy activities included reading magazines, newspapers or books, and reading books to children. Academic integration is analyzed in terms of differences between persisters and drop-outs.

Ho 18A: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they read magazines, newspapers or books.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they read magazines, newspapers, or books. Table 4.32 presents the analysis of ranked data for the comparison between the two

groups. The analysis resulted in a computed z of 1.81. The value of z required for significance at the .05 level was 1.65. Because the calculated z value exceeds this value, the null hypothesis was rejected. Persisters read magazines, newspapers, or books significantly more regularly than drop-outs.

TABLE 4.32
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF READING MAGAZINES, NEWSPAPERS OR BOOKS
(Ho 18A)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	39	2431.5	1078.5*	
Persisters	70	3563.5	1651.5*	1.81

z=1.81 > 1.65, p < .05.

Ho 18B: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they read books to their children.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they read books to their children. Table 4.33 presents the analysis of ranked data for the comparison between persisters and drop-outs who had children under 18 living at home. The analysis resulted in a computed z of .41. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this value, the null hypothesis was not rejected.

TABLE 4.33
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF READING BOOKS TO THEIR CHILDREN
(Ho 18B)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	17	488.5	333.5	
Persisters	37	996.5	335.5	.41

$z=0.41 < 1.65$, $p > .05$.

Social Interaction

Social interaction is represented by hours of attendance since the time of enrollment. Social integration is analyzed with respect to differences between persisters and drop-outs, and by gender, race, marital status, and goal clarity. Attendance was examined in terms of income, self-esteem and last grade of formal schooling completed persisters and drop-outs.

Ho 19: There is no statistically significant difference between persisters and drop-outs in terms of their mean hours of attendance.

A one-factor analysis of variance was used to compare persisters and drop-outs with respect to their mean hours of attendance. Table 4.34 shows mean attendance and the standard deviations for each group. Table 4.35 shows the computed value of F which is 7.15. The F value with 1 and 109 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value exceeds this value, the null hypothesis was rejected. A Bonferroni test

(t=1.98 with 109 df. at the .05 level) confirmed the strength of the significant difference. Persisters attended significantly more hours of ABE instruction than drop-outs.

TABLE 4.34
MEAN ATTENDANCE HOURS
BY PERSISTERS AND DROP-OUTS
(Ho 19)

Group	N	Attendance Mean	Attendance SD
Persisters	72	83.8	77.3
Drop-Outs	30	47.1	49.7

TABLE 4.35
ANALYSIS OF VARIANCE FOR
MEAN ATTENDANCE HOURS BY PERSISTERS AND DROP-OUTS
(Ho 19)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Attendance	1	33986.63	33986.63	7.15*	0.0086
Error	109	517851.40	4750.94		

F=7.15 > 4.00 with 1 and 109 df., p < .05.
t=1.98 with 109 df., p < .05.

Ho 20: There is no statistically significant difference between men and women in terms of their mean hours of attendance.

A one-factor analysis of variance was used to compare men and women in terms of their mean hours of attendance. Table 4.36 shows mean attendance for each group. Table 4.37 shows the computed value of F which is .75. The F value with 1 and 109 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is

less than this value, the null hypothesis was not rejected.

TABLE 4.36
MEAN ATTENDANCE HOURS
BY MEN AND WOMEN
(Ho 20)

Group	N	Attendance Mean	Attendance SD
Men	47	64.1	54.5
Women	64	75.9	80.8

TABLE 4.37
ANALYSIS OF VARIANCE FOR
MEAN ATTENDANCE HOURS BY MEN AND WOMEN
(Ho 20)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Attendance	1	3769.81	3769.81	.75	.38
Error	109	548068.22	5028.15		

F=0.75 < 4.00 with 1 and 109 df., p > .05.

Ho 21: There is no statistically significant correlation between hours of attendance and age.

The Pearson product-moment correlation coefficient was used to measure the relationship between attendance and age. Mean attendance was 70.9 hours of instruction for 111 participants. The mean age was 34.4 years. A negative correlation (r= -0.15; n=110) was found between attendance and age. A t-test for the strength of the correlation resulted in a t of 1.58. The t value with 108 degrees of freedom required for significance at the .05 level is 1.671. Because the computed value is less than this, the null hypothesis was not rejected.

Ho 22: There is no statistically significant difference between White and Black learners in terms of mean hours of attendance.

A one-way analysis of variance was used to test the difference in mean hours of attendance in ABE classes by the end of the program year between White and Black ABE learners. Table 4.38 shows mean attendance and the standard deviations for each group. Table 4.39 shows the computed value of F which is 11.05. The F value with 1 and 107 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value exceeds this value, the null hypothesis was rejected. A Bonferroni test (t=1.98 with 107 df., at the .05 level) confirmed the strength of the significant difference. Black learners attended significantly more hours of ABE instruction than White learners.

TABLE 4.38
MEAN ATTENDANCE HOURS
BY WHITE AND BLACK ABE LEARNERS
(Ho 22)

		Attendance	
Group	N	Mean	SD
White	41	42.4	38.3
Black	68	87.3	81.0

TABLE 4.39
ANALYSIS OF VARIANCE FOR
MEAN ATTENDANCE HOURS BY WHITE AND BLACK ABE LEARNERS
(Ho 22)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Attendance	1	51490.44	51490.44	11.05*	.001
Error	107	498670.9	4660.47		

F=11.05 > 4.00 with 1 and 107 df., p < .05.;
t=1.98, 107 df, p < .05.

Ho 23: There is a statistically significant difference in terms of mean hours of attendance by married and not married ABE learners.

A one-way analysis of variance was used to test the difference between married and not married ABE learners in terms of mean hours of classes attended by the end of the program year. Table 4.40 shows mean attendance and the standard deviations for each group. Table 4.41 shows the computed value of F which is 2.15. The F value with 1 and 108 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is less than this value, the null hypothesis was not rejected.

TABLE 4.40
MEAN ATTENDANCE HOURS
BY MARRIED AND NOT MARRIED ABE LEARNERS
(Ho 23)

Group	N	Attendance	
		Mean	SD
Married	48	59.3	46.8
Not Married	62	79.4	84.6

TABLE 4.41
ANALYSIS OF VARIANCE FOR MEAN ATTENDANCE HOURS
BY MARRIED AND NOT MARRIED ABE LEARNERS
(Ho 23)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Attendance	1	10895.54	10895.54	2.18	.1428
Error	108	539965.58	4999.68		

F=2.18 < 4.00 with 1 and 108 df., p > .05.

Ho 24: There is no statistically significant correlation between hours of attendance and income.

The Pearson product-moment correlation coefficient was used to measure the relationship between attendance and rate of pay. Mean rate of pay was $6.36 for 41 employed participants. Mean attendance was 70.9 hours of instruction for 111 participants. A positive correlation (r= .07; n=38) was found between attendance and rate of pay. A t-test for the strength of the correlation resulted in a computed t of 0.425. The t value with 36 degrees of freedom required for significance at the .05 level is 1.684. Because the computed value is less than this, the null hypothesis was not rejected.

Ho 25: There is no statistically significant correlation between hours of attendance and mean self-esteem scores among ABE learners.

The Spearman rank-order correlation coefficient (rho) was used to measure whether associations existed between attendance and self-esteem. Mean self-esteem was 3.65 along

a range of 1.0 to 5.0, for 127 participants. Mean attendance was 70.9 hours of instruction for 111 participants. A positive correlation (rho= .05; n=105) was found between attendance and self-esteem. A t-test for the strength of the correlation resulted in a computed t of 0.508. The t value with 103 degrees of freedom required for significance at the .05 level is 1.671. Because the computed value is less than this, the null hypothesis was not rejected.

Ho 26: There is no statistically significant correlation between hours of attendance and last grade completed.

The Pearson product-moment correlation coefficient was used to measure the relationship between attendance and last grade completed. The mean years of formal schooling completed among ABE learners in the study was grade 8.56 for 132 participants. Mean attendance was 70.9 hours of instruction for 111 participants. A positive correlation (r= .14; n=110) was found between attendance and last grade completed. A t-test for the strength of the correlation resulted in a computed t of 1.47. The t value with 108 degrees of freedom required for significance at the .05 level is 1.671. Because the computed value is less than this, the null hypothesis was not rejected.

Ho 27: There is no statistically significant difference between ABE learners who have clear goals and those who have unclear goals in terms of their mean hours of attendance.

A one-way analysis of variance was used to test the difference in mean hours of attendance in ABE classes by the end of the program year between learners who had clear goals and those who had unclear goals upon enrollment. Table 4.42 shows mean attendance and the standard deviations for each group. Table 4.43 shows the computed value of F which is 2.38. The F value with 1 and 109 degrees of freedom required for significance at the .05 level is 4.00. Because the computed value is less than this value, the null hypothesis was not rejected.

TABLE 4.42
MEAN ATTENDANCE HOURS
BY LEARNERS WITH CLEAR GOALS AND LEARNERS WITH UNCLEAR GOALS
(Ho 27)

		Attendance	
Group	N	Mean	SD
Clear	66	63.0	46.6
Unclear	45	82.4	95.4

TABLE 4.43
ANALYSIS OF VARIANCE FOR MEAN ATTENDANCE HOURS
BY LEARNERS WITH CLEAR GOALS AND LEARNERS WITH UNCLEAR GOALS
(Ho 27)

Source	DF	Sum of Squares	Mean Square	F Ratio	Probability
Attendance	1	10092.21	10092.21	2.03	.16
Error	109	541745.83	4970.15		

F=2.03 < 4.00 with 1 and 109 df., p > .05.

Ho 28: There is no statistically significant correlation between frequency of reading magazines, newspapers or books and number of hours in attendance among ABE learners.

The Spearman rank-order correlation coefficient (rho) was used to measure the relationship between hours of attendance and frequency of reading magazines, newspapers or books. The sample mean for hours of attendance was 70.9 hours (n=111). The sample mean for reading magazines, newspapers or books was 3.08 (n=133). A positive correlation (rho=.07; n=109) was found between attendance and frequency of reading magazines, newspapers or books. A t-test for the strength of the correlation resulted in a t of .725. The t value with 107 degrees of freedom required for significance at the .05 level is 1.671. Because the computed value is less than this, the null hypothesis was not rejected.

Cultural Interaction and Cultural Integration

Cultural Interaction. Cultural interaction refers to behaviors that indicate the extent to which literacy has become an integral part of the individual's daily life. In this study, variables related to this concept include involvement in their children's school work, community involvement, and community-oriented literacy activities. Learners were asked to what extent they helped their child with school work or talked with their child about school.

Regarding community involvement, they were asked if they were registered to vote, and how active they were in various clubs and organizations. Under community-oriented activities, learners reported how often they used the public library, talked with neighbors, and attended community meetings.

Cultural Integration. Cultural integration refers to the extent to which learners identify with or experience congruence with the culture of literacy. In this study, learners were asked about their extent of agreement with attitudes that support the practice of literacy.

In this section comparisons are examined between persisters and drop-outs and by parents' educational attainment, gender, marital status, and race, in terms of involvement with their children's school work, their community involvement, and their community-oriented literacy activities. Relationships with attitudes toward literacy were examined in terms of life satisfaction, involvement with the child's school work, and self-esteem.

The next six hypotheses dealt with the extent to which ABE learners were involved with their children's school work. This involvement was in terms of the frequency with which they helped with homework or talked about school with their children.

Ho 29A: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they help their children with school work.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they help their children with school work. Table 4.44 presents the analysis ranked data for the comparison between persisters and drop-outs who have children under 18 at home. The analysis resulted in a computed z of .31. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.44
COMPARISONS BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF HELPING CHILDREN WITH SCHOOL WORK
(Ho 29A)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	13	299.0	195.5	
Persisters	32	723.5	220.5	.31

$z=0.31 < 1.65$, $p > .05$.

Ho 29B: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they talk with their children about school.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they talk with

their children about school. Table 4.45 presents the analysis of ranked data for the comparison between persisters and drop-outs who have children under 18 at home. The analysis resulted in a computed z of 1.10. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.45
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF TALKING WITH CHILDREN ABOUT SCHOOL
(Ho 29B)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	13	343.0	164.0	
Persisters	32	692.0	252.0	1.10

z=1.10 < 1.65, p > .05

Ho 30A: There is no statistically significant correlation between frequency of helping children with their school work and five statements of attitudes regarding literacy.

The Spearman rank-order correlation coefficient (rho) was used to determine the relationship between frequency of helping children with school work and five different attitudes toward literacy. Table 4.46 shows the computed rho correlations. A significant correlation was found between helping children with school work and the attitude, "a book is a good gift for a child" (rho=.25). Another significant correlation was found between helping children with school work and the attitude, "reading gives a person

ideas to share with other people" (rho= .15). T-tests of the strength of the correlations were performed. Both computed values of t exceeded 1.671 which was required for significance at the .05 level with 78 degrees of freedom. Items in Table 4.46 for which no significant correlation was found with helping their children with school work were: "people who can read will get a better job" (rho=-0.06, n=80, t=.531), "most of the time my children like school" (rho=0.07, n=55, t=.511), and "I expect my children to receive a high school diploma" (rho=0.13, n=58, t=.963). Because only two of the five correlations were significant, the null hypothesis was not rejected.

TABLE 4.46
CORRELATIONS BETWEEN
HELPING CHILDREN WITH SCHOOL WORK
AND ATTITUDES TOWARD LITERACY
(Ho 30A)

	n	rho
Frequency of helping children with school work	49	
A book is a good gift to give to a child.	80	.25*
Reading gives a person ideas to share with other people.	80	.19**
People who can read will get a better job.	80	-.06
(If children in school) Most of the time my children like school.	55	.07
(If children in school) I expect my children to receive a high school diploma.	58	.13

t=2.280 > 1.671 with 78 df., *p < .05.
t=1.709 > 1.671 with 78 df., **p < .05.

Ho 30B: There is no statistically significant correlation between frequency of talking with children about school and five statements of attitudes regarding literacy.

The Spearman rank-order correlation coefficient (rho) was used to determine the relationship between frequency of talking with children about school and five different attitudes toward literacy. Table 4.47 shows the computed rho correlations. T-tests of the strength of the correlations were performed. Because no significant correlations between talking with children about school and the five attitudes toward literacy were found, the null hypothesis was not rejected.

TABLE 4.47
CORRELATIONS BETWEEN
TALKING WITH CHILDREN ABOUT SCHOOL
AND ATTITUDES TOWARD LITERACY
(Ho 30B)

	n	rho
Frequency of talking with children about school	80	
A book is a good gift to give to a child.	80	.05
Reading gives a person ideas to share with other people.	80	-.02
People who can read will get a better job.	80	.07
(If children in school) Most of the time my children like school.	55	-.12
(If children in school) I expect my children to receive a high school diploma.	58	-.04

Ho 31A: There is no statistically significant difference between whether or not learners' parents received a high school diploma/GED in terms of the frequency with which learners help their children with school work.

The Mann-Whitney U Test was used to determine if significant differences existed between learners whose parents obtained a high school diploma or GED and those whose parents did not in terms of the frequency with which they help their children with school work. Table 4.48 presents the analysis of ranked data the comparison between the two groups. The analysis resulted in a computed z of 1.04. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.48
COMPARISON OF LEARNERS
BY PARENTS' ATTAINMENT OF THE HIGH SCHOOL DIPLOMA/GED:
RANKED FREQUENCY OF HELPING CHILDREN WITH THEIR SCHOOL WORK
(Ho 31A)

Group	Group Size	Sum of Rankings	U	z
No H.S./ or GED	13	370.5	188.5	
H.S./GED	36	854.5	279.5	1.04

$z=1.04 < 1.65$, $p > .05$.

Ho 31B: There is no statistically significant difference between whether or not learners' parents received a high school diploma/GED in terms of the frequency with which they talk with their children about school.

The Mann-Whitney U Test was used to determine if significant differences existed between learners whose parents obtained a diploma/GED and those whose parents did not in terms of the frequency with which they talk with their children about school. Table 4.49 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of -1.33. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.49
COMPARISON OF LEARNERS
BY PARENTS' ATTAINMENT OF THE HIGH SCHOOL DIPLOMA/GED:
RANKED FREQUENCY OF TALKING WITH THEIR CHILDREN ABOUT SCHOOL
(Ho 31B)

Group	Group Size	Sum of Rankings	U	z
No H.S./ or GED	13	266.0	293.0	
H.S./GED	36	959.0	175.0	-1.33

z=-1.33 < 1.65, p > .05.

Ho 32: There is no statistically significant difference between persisters and drop-outs in terms of their level of activity in clubs or organizations.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in the extent of their activity in clubs or organizations. Table 4.50 presents the analysis of ranked data for each comparison between persisters and drop-outs.

Because each calculated z was less than the 1.65 required at the .05 level of significance, the null hypothesis was not rejected.

TABLE 4.50
COMPARISONS BETWEEN PERSISTERS AND DROP-OUTS:
RANKED LEVEL OF ACTIVITY IN CLUBS OR ORGANIZATIONS
(Ho 32)

Organization/ Group	Group Size	Sum of Rankings	U	z
Church				
Drop-Outs	39	2212.5	1336.5	
Persisters	71	3892.5	1432.5	.30
Lodge/service organization				
Drop-Outs	39	2200.5	1387.5	
Persisters	72	4015.5	1420.5	.43
PTA/PTO				
Drop-Outs	39	2176.5	1379.5	
Persisters	71	3928.5	1396.5	.12
Labor unions				
Drop-Outs	39	2181.5	1406.5	
Persisters	72	4034.5	1401.5	.04
Youth groups				
Drop-Outs	39	2273.5	1314.5	
Persisters	72	3942.5	1493.5	.55
Social/ sports groups				
Drop-Outs	39	2172.0	1416.0	
Persisters	72	4044.0	1392.0	.15
Community associations				
Drop-Outs	39	2197.0	1391.0	
Persisters	72	4019.0	1417.0	.22

All z's < 1.65, $p > .05$.

Ho 33: There is no statistically significant difference between males and females in terms of their level of activity in clubs or organizations.

The Mann-Whitney U Test was used to determine if significant differences existed between male and female ABE learners in the extent of their activity in clubs or organizations. Table 4.51 presents the analysis of ranked data for each comparison. Because each calculated z was less than the 1.65 required at the .05 level of significance, the null hypothesis was not rejected.

TABLE 4.51
MALE AND FEMALE ABE LEARNERS:
RANKED LEVEL OF ACTIVITY IN CLUBS OR ORGANIZATIONS
(Ho 33)

Organization/ Group	Group Size	Sum of Rankings	U	z
Church				
Males	47	2406.5	1682.5	
Females	63	3698.5	1278.5	1.22
Lodge/service organizations				
Males	47	2696.0	1440.0	
Females	64	3520.0	1568.0	.38
PTA/PTO				
Males	47	2546.5	1524.5	
Females	63	3540.5	1436.5	.26
Labor unions				
Males	47	2672.0	1464.0	
Females	64	3544.0	1544.0	.24
Youth groups				
Males	47	2760.0	1376.0	
Females	64	3456.0	1632.0	.76
Community associations				
Males	47	2625.0	1511.0	
Females	64	3591.0	1497.0	.11
Social/ sports groups				
Males	47	2752.0	1384.0	
Females	64	3464.0	1624.0	.72

All z's < 1.65, $p > .05$.

Ho 34: There is no statistically significant relationship between life satisfaction and level of activity in clubs or organizations.

The Spearman rank-order correlation coefficient (rho)

was used to measure whether a relationship existed between life satisfaction and extent of activity in clubs and organizations. Table 4.52 shows the computed rho correlations. There were two significant correlations with life satisfaction: level of activity in church (rho=.25, n=132), and level of activity in PTA/PTO organizations (rho=.17, n=132). T-tests of the strength of the correlations were performed. Both computed values of t exceeded 1.645 which was required for significance at the .05 level with 130 degrees of freedom. Items in Table 4.52 for which no significant correlation with life satisfaction was found were level of activity in lodge and service organizations (rho=-0.08, n=132, t=-0.919), labor unions (rho=0.06, n=133, t=0.688), youth groups (rho=-0.03, n=133, t=-0.343), community associations (rho=0.02, n=133, t=0.229), and social and sports groups (rho=0.10, n=133, t=0.150). Because only two of the seven correlations were significant, the null hypothesis was not rejected.

TABLE 4.52
CORRELATIONS BETWEEN LIFE SATISFACTION
AND LEVEL OF ACTIVITY IN CLUBS OR ORGANIZATIONS
BY TYPE OF CLUB OR ORGANIZATION
(Ho 34)

	n	rho
Life Satisfaction	132	
Church	132	.25*
Lodge and service organizations	133	-.08
PTA/PTO	132	.17**
Labor unions	133	.06
Youth groups	133	-.03
Community associations	133	.02
Social and sports groups	133	.10

t=2.94 > 1.645 with 130 df.; *p < .05;
t=1.97 > 1.645 with 130 df.; **p < .05.

Ho 35: There is no statistically significant difference between Whites and Blacks in terms of frequency of attending community meetings.

The Mann-Whitney U Test was used to determine if significant differences existed between Whites and Blacks in terms of the frequency with which they attend community meetings. Table 4.53 presents the analysis of ranked data for the comparison between Black and White ABE learners. The analysis resulted in a computed z of 2.84. The value of z required for significance at the .05 level was 1.65. Because the calculated z value exceeded this, the null hypothesis was rejected. White ABE learners attend community meetings more regularly than Black ABE learners do.

TABLE 4.53
COMPARISON BETWEEN WHITE AND BLACK ABE LEARNERS:
RANKED FREQUENCY OF ATTENDANCE AT COMMUNITY MEETINGS
(Ho 35)

Group	Group Size	Sum of Rankings	U	z
Whites	50	2567.0	2408.0*	
Blacks	74	5183.0	1292.0*	2.84

$z=2.84 > 1.65$, $p < .05$.

Ho 36: There is no statistically significant difference between male and female learners in terms of frequency of attending community meetings.

The Mann-Whitney U Test was used to determine if significant differences existed between males and females in terms of the frequency with which they attend community meetings. Table 4.54 presents the analysis of ranked data for the comparison between males and females. The analysis resulted in a computed z of .09. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this value, the null hypothesis was not rejected.

TABLE 4.54
COMPARISON MALES AND FEMALES:
RANKED FREQUENCY OF ATTENDANCE AT COMMUNITY MEETINGS
(Ho 36)

Group	Group Size	Sum of Rankings	U	z
Males	59	3521.0	2320.0	
Females	69	4735.0	1751.0	.09

$z=.09 < 1.65$, $p > .05$.

Ho 37: There is no statistically significant difference between married and not married ABE learners in terms of the frequency with which they talk with their neighbors.

The Mann-Whitney U Test was used to determine if significant differences existed between married and not married ABE learners in terms of their frequency of attending community meetings. Table 4.55 presents the analysis of ranked data for the comparison between married and not married ABE learners. The analysis resulted in a computed z of .20. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.55
COMPARISON BETWEEN MARRIED AND NOT MARRIED ABE LEARNERS: RANKED FREQUENCY OF TALKING WITH NEIGHBORS (Ho 37)

Group	Group Size	Sum of Rankings	U	z
Married	55	3670.5	2049.5	
Not married	76	4975.5	2130.5	.20

$z=0.20 < 1.65, p > .05$

Ho 38: There is no statistically significant difference between Black and White ABE learners in terms of being registered to vote.

A chi-square analysis was performed to determine the existence of a difference in the percentages of Black and White ABE learners in those registered to vote. Table 4.56 provides the distribution numbers and percentages of registered Black and White learners. The analysis resulted in a chi-square value of .007. The value of chi-square with 1 degree of freedom required for significance at the .05 level was 3.84. Because the calculated chi-square value is below this value, the null hypothesis was not rejected.

TABLE 4.56
PERCENTAGES OF WHITE AND BLACK ABE LEARNERS
REGISTERED TO VOTE
(Ho 38)

Status on Registered to Vote	Race		Totals
	White	Black	
Registered	5 (20.8%)	12 (20.0%)	17
Not Registered	19 (79.2%)	48 (80.0%)	67
Totals	24	60	84

X^2=0.007 < 3.84 with 1 df., p >.05.

Ho 39: There is no statistically significant difference between persisters and drop-outs in terms of the frequency with which they use the public library.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of the frequency with which they use the public library. Table 4.57 presents the analysis of ranked data for the comparison between persisters and drop-outs. The analysis resulted in a computed z of 1.728. The value of z required for significance at the .05 level was 1.65. Because the calculated z value exceeds this value, the null hypothesis was rejected. Persisters use the public library significantly more regularly than drop-outs.

TABLE 4.57
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS:
RANKED FREQUENCY OF USING THE PUBLIC LIBRARY
(Ho 39)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	39	2441.0	1108.0*	
Persisters	71	3664.0	1661.0*	1.728

z=1.728 > 1.65, p < .05.

Ho 40: There is no statistically significant difference between persisters and drop-outs in terms of their ranked scores on selected attitude scales.

The Mann-Whitney U Test was used to determine if significant differences existed between persisters and drop-outs in terms of their attitudes about literacy. Tables 4.58, 4.59 and 4.60 present analyses of ranked data for comparisons between persisters and drop-outs regarding three attitudes.

Table 4.58 presents group comparisons on whether "A book is a good gift for a child." This analysis resulted in a computed z of 1.254.

Table 4.59 concerns the attitude, "Reading gives a person ideas to share with others." This analysis resulted in a computed z of .62.

Table 4.60 presents group comparisons among persisters and drop-outs on the attitude, "I expect my children to receive a high school diploma." Because the item concerned one's children, only learners who had children living at

home were included. This analysis resulted in a computed z of .60.

The computed values of z in each of the above comparisons are less than the 1.65 required at the .05 level of significance. Therefore, the null hypothesis concerning the differences between persisters and drop-outs in their attitudes toward literacy was not rejected.

TABLE 4.58
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS: RANKED RESPONSES TO THE ATTITUDE STATEMENT, "A BOOK IS A GOOD GIFT FOR A CHILD" (Ho 40A)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	39	2387.0	1201.0	
Persisters	72	3829.0	4235.0	1.254

$z=1.254 < 1.65$, $p > .05$.

TABLE 4.59
COMPARISON BETWEEN PERSISTERS AND DROP-OUTS: RANKED RESPONSES TO THE ATTITUDE STATEMENT, "READING GIVES IDEAS TO SHARE" (Ho 40B)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	39	2098.0	1490.0	
Persisters	72	4118.0	1318.0	.62

$z=0.62 < 1.65$, $p > .05$.

TABLE 4.60
COMPARISONS BETWEEN PERSISTERS AND DROP-OUTS:
RANKED RESPONSES TO THE ATTITUDE STATEMENT,
"I EXPECT MY CHILDREN TO GET H.S. DIPLOMA"
(Ho 40C)

Group	Group Size	Sum of Rankings	U	z
Drop-Outs	14	314.0	253.0	
Persisters	33	814.0	209.0	.60

$z=0.60 < 1.65$, $p > .05$.

Ho 41: There is no statistically significant difference between whether or not learners' parents received a high school diploma/GED in terms of the frequency with which they use the public library.

The Mann-Whitney U Test was used to determine if significant differences existed ABE students whose parents obtained a high school diploma or GED and those whose parents did not in terms of the frequency with which they use the public library. Table 4.61 presents the analysis of ranked data for the comparison between the two groups. The analysis resulted in a computed z of .45. The value of z required for significance at the .05 level was 1.65. Because the calculated z value is below this, the null hypothesis was not rejected.

TABLE 4.61
COMPARISON OF LEARNERS
BY PARENTS' ATTAINMENT OF THE HIGH SCHOOL DIPLOMA/GED:
RANKED FREQUENCY OF USING THE PUBLIC LIBRARY
(Ho 41)

Group	Group Size	Sum of Rankings	U	z
No H.S./ or GED	35	1752.5	1012.5	
H.S./GED	61	2903.5	1122.5	.45

$z=0.45 < 1.65$, $p > .05$.

Ho 42: There is no statistically significant correlation between self-esteem and attitudes toward literacy.

The Spearman rank-order correlation coefficient (rho) was used to determine the relationship between self-esteem as measured by Rosenberg's Self-Esteem Scale and five attitudes toward literacy. The sample mean for self-esteem was 3.65 (N=127). Table 4.62 shows the computed rho correlations. A t-test of the strength of the correlations was performed. The t value with 125 degrees of freedom required for significance at the .05 level is 1.658. The computed values of t for two of the attitudes exceeded this: the correlation for "A book is a good gift to give to a child (rho=.16) produced a t value of 1.81; for "Reading gives a person ideas to share with other people" produced a t value of 1.97. The higher their self-esteem, the greater is their agreement with the above statements. No significant correlation was found between self-esteem and the responses to the statement, "People who can read will

get a better job" (rho=-.03, n=133, t=-.345).

Only learners who had children under 18 living at home were included in the following correlations because they dealt with statements about children. No significant correlation was found between self-esteem and the responses to the statement, "Most of the time my children like school" (rho=.11, n=55, t=.806). No significant correlation was found between self-esteem and the responses to the statement, "I expect my children to receive a high school diploma" (rho=.03, n=58, t=.225). Because two of the five correlations were significant, the null hypothesis was rejected. Self-esteem is positively related to attitudes toward literacy.

TABLE 4.62
CORRELATIONS BETWEEN SELF-ESTEEM
AND FIVE ATTITUDES TOWARD LITERACY
(Ho 42)

	n	rho
Self-esteem scores	133	
A book is a good gift to give to a child.	127	.16*
Reading gives a person ideas to share with other people.	133	.17**
People who can read will get a better job.	133	-.03
(If children in school) Most of the time my children like school.	55	.11
I expect my children to receive a high school diploma.	58	.03

t=1.81 > 1.65, *p < .05.
t=1.97 > 1.65, **p < .05.

Summary of Phase 3 Results

This section examined the statistical significance of Phase 3 variables in relation to persisters and drop-outs. Academic integration was represented by the frequency of engaging in activities that require the use of basic literacy skills such as reading magazines, newspapers and books, and reading to one's child. A significant difference was found between persisters and drop-outs in terms of the frequency with which they read magazines, newspapers or books. Persisters read these items more regularly than drop-outs, which indicates that persisters are more academically integrated at the time of enrollment.

Social interaction, which was represented by attendance as an indicator that the individuals interacted with instructors and other learners during class time, was also found to have a statistically significant relationship to persistence and dropout. It was found that persisters attended more hours of instruction than drop-outs.

Cultural interaction also had a statistically significant relationship with persistence and dropout through the variable, community-oriented literacy activities. It was found that persisters used the public library more regularly than drop-outs.

Other tests of statistical significance sought to examine relationships between Phase 1 variables and Phase 3 variables and between Phase 2 variables and Phase 3

variables. In terms of Individual Attributes (Phase 1) and Social Interaction (Phase 3), Black learners attended significantly more hours in class than White learners. The learning press variable (Phase 2), life satisfaction, had a significant positive correlation with only two aspects of cultural interaction/community involvement (Phase 3); life satisfaction (learning press, Phase 2) was positively correlated with level of activity in church and PTA/PTO clubs (cultural integration, Phase 3). The individual attribute, self-esteem (Phase 1), was positively correlated with only two aspects of the cultural integration variable (Phase 3), attitudes toward literacy. These were responses to the statements, "Reading gives a person ideas to share with other people," and "A book is a good gift to give to a child."

No significant differences were found between men and women, married and not married learners, and learners with clear goals and learners with unclear goals in terms of mean attendance. No significant correlations were found between attendance and the following variables: age, income, self-esteem, last grade completed, and frequency of reading magazines, newspapers, or books.

Summary

The analysis of data is organized according to three phases of the provisional model of persistence/dropout. The findings and conclusions are presented in Chapter V.

CHAPTER V

FINDINGS, DISCUSSION, AND RECOMMENDATIONS

The purpose of the study was to provide a comprehensive, theoretically-based provisional model to explain persistence and dropout in adult basic education. The task of the study was to find justification for including specific factors in the model.

The population selected for this study was comprised of ABE students from eight Tennessee counties whose entering level proficiency in basic reading, math and writing skills was assessed at below sixth grade equivalency. This sample represented the first cohort of a three-year project, "Study of Adult Learners in Tennessee," conducted by the Center for Literacy Studies (CLS) of the University of Tennessee, Knoxville.

Findings

This section presents the findings of the study in terms of the research hypotheses for which significant results were found and, in general, terms of non-significant relationships. Three alternative ways for examining the significant findings are provided: significant relationships between hypotheses, significant factors and the significant variables they represent, and phases of the model in which significance was found.

Significant Relationships

Ten of the forty-two hypotheses were supported by the

data while thirty-two were not. The following hypotheses were supported by the data:

1. Persisters are more likely to be not married than married (H 5).
2. Number of hours of attendance in ABE is higher among Blacks than Whites (H 22).
3. White ABE learners are more likely than Black ABE learners to attend community meetings (H 35).
4. There is a positive relationship among ABE students between self-esteem and perceptions about the work environment (H 12).
5. There is a positive relationship among ABE students between self-esteem and life satisfaction (H 11).
6. There is a positive relationship between ABE learners' self-esteem and their attitudes toward literacy (H 42).
7. ABE students who have clear educational goals are more likely to have more positive perceptions about their work environment than ABE students who have unclear goals (H 16).
8. Persisters engage in academic literacy-related activities more frequently than drop-outs (H 18).
9. Number of hours of attendance in ABE is higher among persisters than drop-outs (H 19).
10. Persisters are more likely to use the public library than ABE learners who drop out (H 39).

Significant Variables

Another way of describing the findings is to compare significant variables and the factors they represent in the model. Table 5.1 lists the variables which were significantly related to other variables in the model.

Of the eighteen variables examined in this study, ten significantly related to other variables in the model. Persistence or dropout was related to four variables. Goal clarity was related to one variable, as was learning press/life satisfaction, learning press/perceptions about the work environment, social interaction/attendance, and cultural interaction/community involvement. Cultural integration/attitudes toward literacy was related to two variables.

TABLE 5.1
LIST OF SIGNIFICANT RELATIONSHIPS
AMONG FACTORS OF THE PROVISIONAL MODEL

Persistence or Dropout
is significantly related to:

Individual Attribute/Marital Status (H 5)*
Academic Integration/Academic Literacy Activities (H 18)
Social Interaction/Attendance (H 19)
Cultural Interaction/Community-Oriented Literacy Activities (H 39)

Goal Clarity
is significantly related to:

Learning Press/Perceptions about their Work Environment (H 16)

Learning Press/Life Satisfaction
is significantly related to:

Individual Attribute/Self-Esteem (H 11)

Learning Press/Perceptions about Work Environment
is significantly related to:

Individual Attribute/Self-Esteem (H 12)

Social Interaction/Attendance
is significantly related to:

Individual Attribute/Race (H 22)

Cultural Interaction/Community Involvement
is significantly related to:

Individual Attribute/Race (H 35)

Cultural Integration/Attitudes Toward Literacy
is significantly related to:

Individual Attribute/Self-Esteem (H 42)

*Names of factors in the model precede the names of variables represented by the factors, followed by the hypotheses number.

Non-Significant Relationships

The data failed to support significant relationships to persistence or dropout in terms of gender, age, income and hours of work, last grade completed, parents' educational attainment, goal clarity, frequency of personal literacy requirements, literacy requirements on the job, involvement

with their children's school work, and literacy attitudes. No significant relationships involving goal clarity were found with respect to self-esteem, life satisfaction, frequency of personal literacy requirements and literacy requirements on the job, and hours of classroom attendance. No significant relationships concerning attendance were found with respect to sex, age, marital status, income, self-esteem, last grade of school completed, and frequency of academic literacy activities. Despite the lack of significant relationships between several variables and persistence/dropout, goal clarity and attendance, these remain as important variables in the model, as evidenced by significant relationships with other variables discussed below. Table 5.2 lists non-significant relationships found in the study as a result of tests of the null hypothesis.

TABLE 5.2
LIST OF NON-SIGNIFICANT RELATIONSHIPS AMONG FACTORS OF THE PROVISIONAL MODEL

Persistence or Dropout
is not significantly related to:

- Family Background/Parents' Education (H 1)*
- Individual Attributes/Gender (H 2)
- Individual Attributes/Age (H 3)
- Individual Attributes/Race (H 4)
- Individual Attributes/Workhours (H 6)
- Individual Attributes/Income (H 7)
- Individual Attributes/Self-Esteem (H 8)
- Pre-ABE Schooling/Last Grade Completed (H 9)
- Learning Press/Literacy Requirements on the Job (H 10)
- Goal Clarity (H 13)
- Cultural Interaction/Involvement with Child's School Work (H 29)
- Cultural Interaction/Community Involvement (H 32)
- Cultural Interaction/Community-Oriented Literacy Activities (H 39)
- Cultural Integration/Attitudes Toward Literacy (H 40)

Goal Clarity
is not significantly related to:

- Individual Attributes/Self-Esteem (H 14)
- Learning Press/Life Satisfaction (H 15)
- Learning Press/Job Satisfaction (H 16)
- Learning Press/Job Satisfaction (H 16)
- Learning Press/Literacy Requirements (H 17)
- Social Interaction/Attendance (H 27)

Social Interaction/Attendance
is not significantly related to:

- Individual Attributes/Gender (H 20)
- Individual Attributes/Age (H 21)
- Individual Attributes/Marital Status (H 23)
- Individual Attributes/Income (H 24)
- Individual Attributes/Self-Esteem (H 25)
- Pre-ABE Schooling/Last Grade Coompleted (H 26)
- Academic Integration/Academic Literacy Activities (H 28)

Cultural Interaction/Involvement in Child's School Work
is not significantly related to:

- Family Background/Parents' Education (H 31)
- Individual Attributes/Self-Esteem (H 42)
- Cultural Integration/Attitudes Toward Literacy (H 30)

Cultural Interaction/Community Involvement
is not significantly related to:

- Individual Attributes/Race (H 36)
- Individual Attributes/Gender (H 33)
- Learning Press/Life Satisfaction (H 34)

Cultural Interaction/Community-Oriented Literacy Activities
is not significantly related to:

- Family Background/Parents' Education (H 41)
- Individual Attributes/Marital Status (H 37)

*Names of factors in the model precede the names of variables represented by the factors, followed by the hypotheses number.

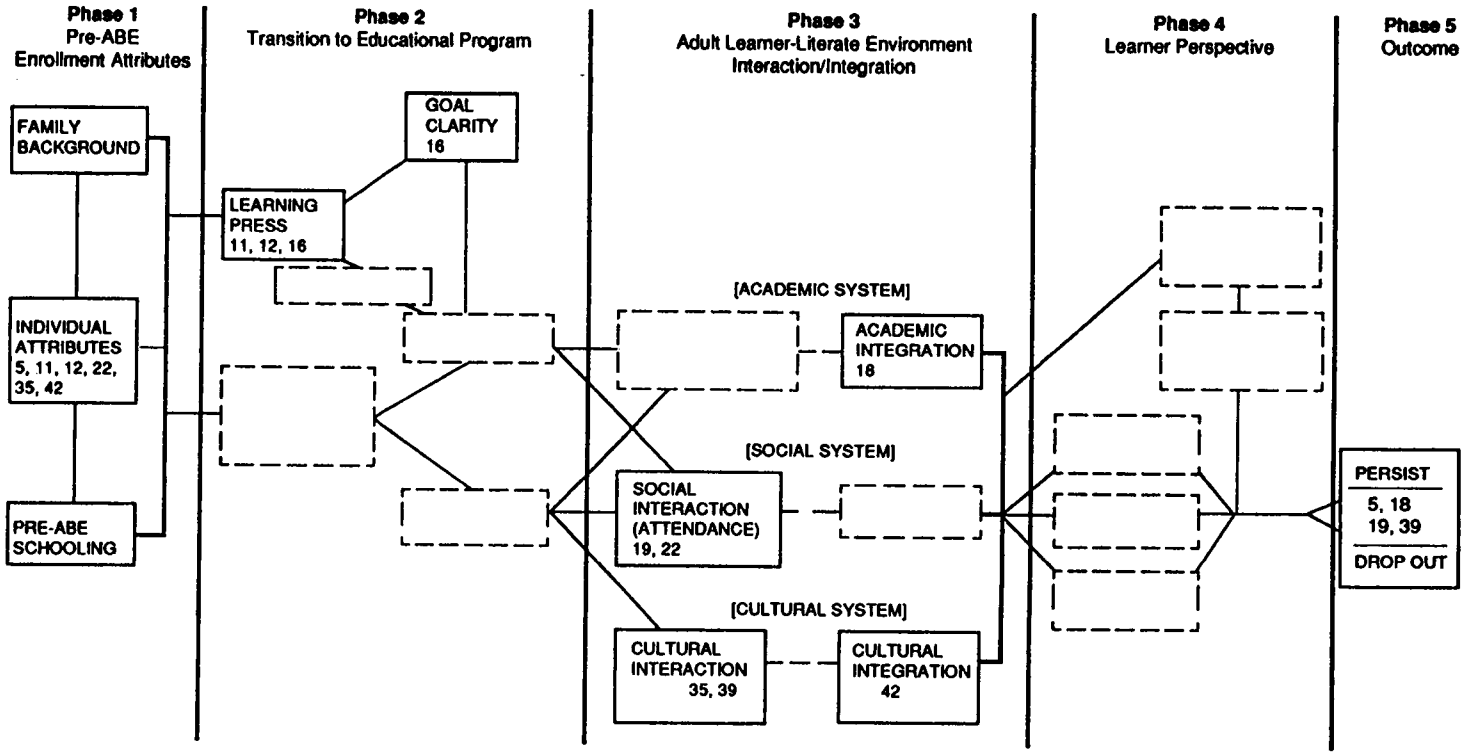
Provisional Model of Persistence/Dropout

The provisional model of persistence/dropout is illustrated in Figure 5.1. The model consists of five phases representing meaningful clusters of factors that characterize the process leading to the decision to continue participation or drop out from ABE.

The model indicates significant factors within the five phases. The numbers located in the boxes refer to significant research hypotheses involving variables which represent those factors. To locate two significantly related factors, the reader should select any specified hypothesis number associated with a factor and scan the model for the same number to locate the other factor. For example, the reader will find the number 5 (for the hypothesis) in the box labeled individual attributes (marital status) and in the box labeled persist/drop out.

While twelve factors in the provisional model were investigated, eleven factors were not investigated because relevant data were not available. The placement of these variables in the chart is indicated by empty boxes for the benefit of future research.

The provisional model may be considered in terms of significant relationships one phase at a time and by comparing significant relationships in two or more phases. The following discussion begins with a single phase treatment followed by a cross-phase comparison.



NOTE: Boxes with solid borders contain variables investigated in the study.
Numbers in boxes refer to significant hypotheses enumerated in the model.
Empty boxes represent variables in the model which were not investigated.

FIGURE 5.1
PROVISIONAL MODEL OF PERSISTENCE/DROPOUT IN ABE
AND SIGNIFICANT RELATIONSHIPS

Phases of the Model

Phase 1, Pre-Enrollment Attributes, consists of family background, individual attributes, and pre-ABE schooling, all of which have some influence on the decision to persist or drop out. They also influence one or more factors that contribute to that decision.

Phase 2, Transition to the Educational Program, consists of learning press and goal clarity. Circumstances in adults' lives lead them to engage in formal educational activities. These circumstances also influence the formulation of learning goals. Internally or externally generated pressures to engage in formal learning as well as learning goals have a degree of influence on persistence/ dropout.

Phase 3, Interaction and Integration of the Adult Learner within the Literate Environment, consists of academic integration, social interaction, cultural interaction and cultural integration. Learners increase their literacy skills through formal learning and through greater involvement with the literate culture. By engaging in formal learning they become members of the academic system and social system of the educational program. Through their involvement in the literature culture, they become members of a cultural system, that is, the print culture. Interactive experiences within a system promote integration or incorporation (Tinto, 1987). The degree to

which learners become integrated within one or more of these systems influences their likelihood to persist or drop out of ABE.

Phase 4, Learner Perspective, refers to the strength of the learners' goal commitment and program commitment, any new or recurring barriers to participation, and learners' perceptions and evaluations regarding the ABE program. Interactive and integrative experiences in the academic, social and cultural systems influence learners' perspectives. The strength of their goal commitment and program commitment affects the decision either to continue their persistence or drop out.

Phase 5, Outcome, refers to the decision to persist or drop out of ABE. During the course of participation in an educational program, learners weigh the advantages and disadvantages of remaining in the program. Their decision is influenced by their family and personal background, the pressure to engage in learning and other aspects of the transition into the educational program, integrative and integrative experiences, and the perspectives they develop as a result of their experiences.

The model indicates that significant relationships were found in the four phases which were included in the study. All factors, except for family background and pre-ABE schooling, were involved in at least one significant relationship among the variables investigated in the model.

Cross-Phase Comparison

An additional approach to analyzing the findings of the overall model is to identify phases which are significantly linked with other phases by way of their respective variables. Referring again to Figure 5.1, significance was found between adjacent phases and between distant phases. The following lists the ways in which phases are connected to each other through significant findings:

(1) Phase 1 and Phase 5 (H 5);

(2) Phase 1 and Phase 2 (H 11 and H 12);

(3) Phase 1 and Phase 3 (H 22, H 35, and H 42); and

(4) Phase 3 and Phase 5 (H 18, H 19, and H 39).

Significant results were also found within phase in:

(5) Phase 2 (H 16).

This cross-phase comparison evidences the inter-connectedness of phases in the model.

Discussion of Findings

This section presents conclusions related to each of the significant relationships suggested by the data and presents conclusions on the overall provisional model of persistence/dropout in ABE.

Significant Relationships

The finding that persisters were more likely to be married and drop-outs more likely to be not married (H 5) contradicts Knibbe and Dusewicz's (1991) finding that single adults had higher attendance in literacy programs. Marital

status seems to be the only individual attribute directly related to persistence and dropout. However, there was no evidence that helped to explain the relationship.

The finding that attendance was significantly greater among Black students than White students (H 22) is consistent with Knibbe and Dusewicz's finding in which employed African-American literacy students attended more hours of classes than White students. However, Darkenwald (1981) found that Blacks were more likely to drop out of adult education activities than Whites. Research by Bean, Partanen, Wright, Aaronson (1989) reported that attendance is higher among Black students in literacy programs in which Blacks comprise the majority. The sample of the present study contained a large number of Black students who attended programs in which they were in the majority. Therefore, the sample composition may explain the above finding.

That number of hours of attendance was higher among persisters was supported by the data (H 19). As an inferred measure of social interaction, attendance represents the amount of time students are in contact with instructors and other students. During this period of contact it is assumed that social interactions, including friendships with other students and supportive teacher-student relationships, would occur. Thus, forms of social interaction seems to enhance one's integration into the social life of the educational

program, a conclusion supported by Tinto's research (1987).

Social interaction is related to persistence and the individual attribute, race, is related to social interaction. This suggests that some racial groups attend ABE classes at higher rates, which increases their likelihood of persistence.

That White ABE students are more likely than Blacks to attend community meetings was supported by the data (H 35). The frequency with which ABE students participated in meetings in their community was an inferred indicator of cultural interaction. Participating in community meetings is assumed as one expression of participation in the literate culture. No research in the ABE literature was found regarding racial or ethnic patterns of community involvement to help explain the greater participation of Whites. A possible explanation is that White learners are less likely to experience alienation from an historically White-dominated culture compared to Black learners. Therefore, considering the historical context, Whites are more likely to participate in cultural activities such as community meetings.

The above findings seem to indicate that the racial groups that attend more hours of ABE classes are different from the racial groups that participate more frequently in the community. However, attendance was significantly linked with persistence/dropout, while there appears to be no

relationship between community involvement (participation in community meetings) and persistence/dropout. Therefore, the findings with respect to racial patterns in attendance and community involvement are unclear.

The expected positive relationship between self-esteem and perceptions about the work environment was confirmed (H 12). Job satisfaction and perceived level of responsibility on the job were the significant variables representing perceptions about the work environment which correlated with self-esteem. It was found that the more positive global feelings learners have about themselves the more positive feelings they have about their work. It was also found that the more positive global feeling learners have about themselves the more job responsibility they perceive having. A positive relationship between self-esteem and work satisfaction was also found by Tharenou (1979). Therefore, ABE learners seem to derive global sense of self-esteem, in part, from their jobs.

Self-esteem was positively correlated with life satisfaction, as expected (H 11). This confirms the work of Andrews and Withey (1976) who also found a positive correlation between self-esteem and overall satisfaction using a national sample of adults. Although no significant relationship was found between self-esteem and persistence or between life satisfaction and persistence, high levels of self-esteem and life satisfaction seem to be ideal

conditions for pursuing learning activities. Average or higher self-esteem is necessary to possess confidence in one's ability to learn (Tinto, 1987). Overall satisfaction with one's life may imply that few barriers exist to impede progress toward one's goals.

The expected positive relationship between life satisfaction and level of club and organization activity was only partially confirmed by the data (H 34). The two variables represent learning press and cultural interaction, respectively. Activities in clubs and organizations encourage and often require the use listening, speaking, reading, writing and math skills. Therefore, it was reasoned that participation in one's culture through community group activities appears to create a learning press to improve basic skills.

That self-esteem is positively related with the ABE learners' attitudes toward literacy was confirmed by the data (H 42). As an indicator of cultural integration, learners' attitudes toward literacy represent the extent to which students have incorporated literacy into their behaviors, beliefs, and attitudes. Thus, it appears that the more positive global feelings learners have about themselves, the more positive their attitudes toward literacy.

That students with clear educational goals have more positive perceptions about their work environment than

students with unclear goals was confirmed by the data (H 16). The two variables represent goal clarity and learning press, respectively. More specifically, ABE learners' perceptions regarding their chances for promotion, given their present skills are related to goal clarity. Learners who set clear goals for their educational program thus appear more likely to rate their own chances for promotion high compare to learners who set unclear goals. Workers who perceive that they have better chances for promotion may be able to formulate clearly the kinds of skills required for advancement.

That persisters engage in academic literacy activities more frequently than drop-outs do was suggested by the data (H 18). The frequency with which one used academic skills such as reading books was an inferred indicator of academic integration. Thus, more frequent use of academic skills appears to promote greater academic integration or greater incorporation of literacy skills into one's behavior patterns.

The expected positive correlation between parent's involvement in their children's school life and attitudes toward literacy was only partially confirmed by the data (H 30). Involvement in children's school life is an inferred indicator for cultural interaction; attitudes toward literacy is an inferred indicator for cultural integration. The significant indicator of involvement in their children's

school life was helping them with their school work. The more positive their attitudes toward literacy, the more frequently ABE learners help their children with school work. These results are consistent with Tinto's finding that interaction within a system promotes integration or incorporation (1987). In addition, the work of Albert and D'Amico-Samuels (1991) found that desire of ABE students to assist their children with school motivated them to participate and continue in ABE programs. Therefore, ABE parents' desire to assist their children with school work is indicative of their values concerning literacy.

The expected positive relationship between persistence and use of the public library was confirmed by the data (H 39). Using the public library is one facet of community-oriented literacy activities, a cultural interaction variable. The public library is a symbol of the literate culture and an agent of transmission of that culture. The act of using the public library on a regular basis suggests an appreciation for learning and intention to achieve basic literacy.

The lack of significant results in the present study regarding gender, age, income and hours of work, and last grade completed runs counter to findings of studies of similar populations. Gender (Knibbe & Dusewicz, 1990), age (Heathington, Boser & Salter, 1984; Truesdell, 1975), working hours (Garrison, 1985), and last grade completed

(Garrison, 1985; Truesdell, 1975) were all linked significantly with persistence or dropout. Parents' educational attainment was inferred from studies of younger populations (Cope & Hannah, 1975) to be linked to persistence and dropout.

The lack of a significant relationship between goal clarity and persistence did not agree with Garrison's (1985) findings. Goal expectations contributed significantly in Garrison's model to predicting persistence in ABE for young high school dropouts preparing for the GED. The relationship between goal clarity and persistence may be obscured by other factors that interfere with continued participation in adult education such as participation barriers and negative perceptions of the program.

The Overall Model

The model as a whole provides a preliminary framework for understanding factors that contribute to persistence and dropout. While some factors appear to be linked directly to persistence and dropout, these same factors seem to be linked with other factors within the model. Most of the factors in the model are represented by significant variables. Each of the three phases included in the study are significantly linked with at least one other phase.

The Pre-Enrollment Attributes, marital status, race, and self-esteem have some influence on other factors in the model. Significant relationships involving marital status,

race, and self-esteem span Phases 1, 2, 3 and 4.

The Interaction and Integration of the Adult Learner within the Literate Environment factors seem to be related to persistence and dropout. Significant relationships involving academic social interaction, and cultural interaction span Phases 3 and 5.

Considering the number of hypotheses specified in this study, the ten significant differences found might have occurred by chance. One should be cautious in evaluating the findings, given the large number of hypotheses tested that were not supported by the data. Therefore, the hypothetical relationships in the models itself should be viewed in terms of both the significant and non-significant relationships found.

The theoretical model was useful in specifying ten significant relationships that span the entire model. The phases in the model were found to be inter-connected in terms of statistically significant relationships, and each phase of the model contained significant factors related to persistence and dropout. Thus, it was concluded that the model is useful as a framework for research on the problem of ABE persistence and dropout.

Recommendations

The findings of this study and resulting conclusions form the basis of the following recommendations for research and educational practice.

Future Research

1. Researchers interested in the problems of persistence and dropout among ABE learners and other adult learners should consider this provisional model as a useful framework for developing a comprehensive theory.

2. The study should be replicated using the second and third cohorts of the Study of Adult Learners in Tennessee. The comparison of two or more cohorts would enhance the validity of the findings.

3. In replication studies, improvements should be made in the measurement of several factors related to persistence and dropout. Of great importance is improvement in the operational definitions for persisters and drop-outs. While the literature on persistence argues for the recognition of different types of drop-outs based on timing of departure and reasons for departure, this study was limited in its ability to provide an improved measure of persistence.

Improved measures should be developed to investigate other variables represented in the model as well. It was necessary to use several inferred measures to represent factors that contribute to persistence. For example, hours of attendance was used to measure social interaction between learner and instructor and among learners. More direct measures of social interaction, academic integration and cultural integration are needed.

New measures should be developed to investigate factors

in the model for which there are currently no measures available. These factors include: academic interaction, social integration, goal commitment, program commitment, participation barriers, expectations concerning the educational experience, perceptions of the ABE experience, and evaluation of the ABE experience. Comparisons between expectations of the educational experience and evaluation of ABE experiences have the potential of producing valuable insights into persistence and dropout. In addition, while self-esteem was not related to persistence and dropout in the present study, researchers may find relationships between self-esteem and one or more alternative variables that could not be examined in the study such as expectations concerning the educational experience or participation barriers.

4. Relationships among each of the variables in the model should be further explored. Adult educators and learners often make subjective comments on the improvement of learners' self-esteem as they progress through a literacy program. Yet, improvements in self-esteem have proven to be difficult to quantify. A better understanding of self-esteem may be achieved through its relationship to specific domains of adult life: for example, perceptions of the work environment, community involvement, and involvement with their children's school life.

5. New procedures for conducting survey research with

low-literate adults should be developed. The problems of missing data especially those in connection with subjective response items signal the need for alternative approaches to quantitative research involving this group of adults.

Educational Practice

1. ABE programs should develop educationally appropriate ways to obtain and incorporate into instruction more diverse information from ABE-1 learners about their personal attributes, learning press factors, goals, their personal and work-related needs for literacy skills, and their attitudes toward literacy.

2. Since goal clarity seems to be related to perceptions about the work environment, ABE instructors should assist learners in developing clear goals for their educational experiences. Instructors should strive to facilitate the achievement of work-related goals, as well as other goals.

3. Because self-esteem seems to have direct and indirect linkages with job satisfaction, community involvement, and involvement with children's school work, instructors should draw upon these content areas and related skills in developing curriculum and teaching strategies.

4. ABE instructors should help learners become more effective participants in their own community's activities. Through their participation in clubs and organizations they

will experience opportunities to develop and practice new literacy skills.

5. ABE instructors should encourage and assist learners in practicing literacy skills at home, such as reading newspapers, magazines, and books for their own information as well as for their children. The more integrated these skills become within their lives, the more they will continue their participation in ABE.

6. Recordkeeping improvements are needed for the benefit of research and practice. Uniform recordkeeping systems for attendance, enrollment, withdrawal, and completions as well as the use of standard testing practices would enhance the reliability of information for confidential research and program evaluation.

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APPENDIXES

APPENDIX A

office use only

Respondent ID _____
Quality Check _____
Date of Check _____

ABE-1 LONGITUDINAL STUDY: BASELINE INTERVIEW

Interviewer_____ County _____ Date _____

PLEASE CIRCLE THE NUMBER THAT CORRESPONDS WITH THE ANSWER GIVEN.

SECTION A: PERSONAL CHARACTERISTICS

1) **INTERVIEWER CIRCLE:** 1 male 0 female

2) What is your date of birth? _____

3) Where were you born?

1 this county
2 another county in Tennessee
3 another state in the United States
4 another country

4) What race do you consider yourself?

1 white; 2 black; 3 asian; 4 hispanic; 18 other

5) Are you currently: 1 married **[GO TO Q.6]**; 0 not married **[GO TO Q.7]**?

6) **[IF CURRENTLY MARRIED]** How long have you been married? ____

7) Do you have any children under 18? 1 yes; 0 no

8) What was the last grade of school you completed? _____
[IF GRADUATED HIGH SCHOOL, SKIP Q.9--GO TO Q.10]

9) What was the main reason you left school?
[READ ANSWERS AS PROMPTS IF NEEDED; CIRCLE ONE NUMBER]

1 Wanted to go to work
2 Had to go to work for money
3 Military service
4 Marriage
5 Medical reasons or pregnancy
6 Not doing well in school
7 Doing okay in school but did not like school
8 Family moved a lot
18 Other _____

10) [ASK EVERYONE] When were you last in school? 19__

[FOR EACH FAMILY MEMBER ASK Q.11. IF YES, ASK Q.12 AND Q.13.]

	11) Did your "_"leave school before receiving high school diploma?	12) Years of school completed [APPROX]	13) Was GED later received?
Mother	1 yes; 0 no; 19 DK		1 yes; 0 no
Father	1 yes; 0 no; 19 DK		1 yes; 0 no
Brother #1	1 yes; 0 no; 19 DK		1 yes; 0 no
Brother #2 (IF MORE THAN 2 BROTHERS USE THE SEPARATE TABLE)	1 yes; 0 no; 19 DK		1 yes; 0 no
Sister #1	1 yes; 0 no; 19 DK		1 yes; 0 no
Sister #2 (IF MORE THAN 2 SISTERS USE THE SEPARATE TABLE)	1 yes; 0 no; 19 DK		1 yes; 0 no
Spouse	1 yes; 0 no; 19 DK		1 yes; 0 no

14) What is the main reason you are enrolling in this program?

_____

_____

Why? [PROBE RESPONDENT'S ANSWER]

_____

_____

15) What do you see as potential barriers that will keep you from making progress as quickly as you would like or that would keep you from attending class?

1 health
2 diagnosed disability (emotional, mental, learning)
3 no home support
4 transportation problems
5 childcare problem
6 work conflict
7 no barriers
18 other _____

16) Aside from this program, are you currently taking any other kind of training or schooling?

1 yes [ASK Q.17] 0 no [GO TO Q.18]

17) [IF YES] What kind? _____

18) Have you enrolled in any other classes or programs since leaving school?

1 yes [ASK Q.19] 0 no [GO TO Q.20]

19) [IF YES] What program?

1 basic skills (reading)
2 vocational
18 other _____
When?_____
How long did you participate? _____

SECTION B: SOCIO-ECONOMIC BACKGROUND

20) Are you employed right now, either full-time or part-time?

0 NO, not employed [ASK Q.21,22] 1 YES, employed [GO TO Q.25]

21) Are you . . .

1 unemployed, looking for work
2 unemployed, not looking for work
3 unable to work due to health condition
4 homemaker
5 retired

22) Have you worked in the last five years?

1 yes 0 no

[IF YES]
1 Part-time ?
2 Full-time ?
3 Both part-time and full-time ?

[IF THE RESPONSE TO Q.21 WAS "UNEMPLOYED, LOOKING FOR WORK" (1) ASK Q.23, 24; OTHERS NOT EMPLOYED GO TO Q.40]

23) How long have you been looking for a job?
1 less than 6 months
2 6 months -- one year
3 over one year

24) What reasons have made it hard for you to find a job? [READ LIST AS PROMPTS IF NECESSARY; CIRCLE NUMBERS OF ALL REASONS GIVEN]

1 not enough education or training
2 unable to fill out job application
3 jobs are scarce
4 didn't like available work, working conditions, pay
5 race or nationality, racial discrimination
6 age (jobs open to younger people only, or jobs open to older people only)

7 sex (jobs open to men only, or to women only)
8 problems with transportation
9 problems with childcare
18 other _____
19 don't know

[IF EMPLOYED ASK Q.25-39; IF NOT EMPLOYED GO TO Q.40]

25) If employed, are you . . .

1 full-time (36+ hr/wk)
2 part-time (up to 35 hr/wk)
3 employed but not at work due to illness, vacation, temporary layoff, strike etc.
4 self employed, full-time
5 self employed, part-time

26) Is this a permanent or temporary job?

1 permanent
2 temporary

27) What is your job? What sort of work do you do?

_____

[INTERVIEWER: DO NOT READ LIST--CODE OCCUPATION AND INDUSTRY BASED ON ANSWER]

OCCUPATION:
5 Professional, Manager, Proprietors
(e.g. business owners employing more than 5 people, RNs)
4 White Collar
(e.g. secretaries, telephone operators, bookkeepers, mail carriers, retail-sales, clerks)
3 Skilled technical/technicians, craftspeople (e.g. automechanics, TV repairers, carpenters, electricians, LPNs, CNAs, x-ray technicians)
2 Semi-skilled
(e.g. assembly line workers, welders, truck/van drivers, cabdrivers, bartenders, food/restaurant workers: cooks and waiters/waitresses)
1 Low-skilled
(e.g. laborers, cleaners/janitors, farm laborers, dishwashers, hospital orderlies)

28) INDUSTRY:
1 Agriculture/mining
2 Construction
3 Manufacturing
4 Transportation, communication, public utilities
5 Wholesale/retail trade
6 Finance, business services (e.g. real estate, insurance, business machine repair)
7 Entertainment, recreational service (e.g. restaurant, motel)
8 Health tech services (e.g. hospital, nursing home)
9 Protective services (e.g. guards, police, firefighters)
10 Government
18 Other _____

29) How many hours per week do you usually work? _____ hrs

30) What is your rate of pay? **[RECORD IN ANY OF THESE WAYS]**

Hourly $_____/hour
Part day $_____ per part day of _____ hours
Full day $_____ per 8 hour day
Weekly $_____ per week
Two weeks $_____ per two weeks
Other $_____ for _____

31) Does your job have any of the following benefits?

2 paid vacation
3 retirement plan
4 sick leave
5 health insurance plan **[ASK Q.32]**
1 no benefits **[GO TO Q.37]**
18 other _____

32) **[IF HEALTH PLAN]** Are you covered under this plan?

1 yes 0 no **[GO TO Q.37]**

33) **[IF YES]** Does your employer pay a portion of your insurance premium?

1 yes 0 no **[GO TO Q.35]**

34) **[IF YES]** Is this . . .

1 less than 1/2,
2 more than 1/2, or
3 all of the premium?
19 don't know

35) **[IF MARRIED]** Does your health insurance cover your spouse?

1 yes 0 no

36) Does your health insurance cover your children/dependents?

1 yes 0 no

[ASK ALL EMPLOYED] I'm going to read some sentences about work. Please tell me how much you agree or disagree with each sentence. Tell me if you strongly agree, agree, disagree or strongly disagree with each sentence. If you are undecided, please tell me so.

		SA	A	UND	D	SD
37)	I am satisfied with my present job	5	4	3	2	1
38)	I have a lot of responsibility at work	5	4	3	2	1
39)	With my present skill level, I have no chance for promotion	1	2	3	4	5

40) **[ASK EVERYONE]** Do you rely on anything else (**[IF EMPLOYED]** other than your job) to help make ends meet, things such as gardening, trading, bartering, or selling things at the flea market?

1 yes 0 no **[GO TO Q.42]**

41) **[IF YES]** How important are these extra things to your survival? **[READ LIST IF NECESSARY TO PROBE FOR RESPONSE]**

5 not really important
4 somewhat important
3 pretty important
2 very important
1 only source of income

42) **[IF MARRIED]** Is your wife/husband currently employed? **[IF NOT MARRIED GO TO Q.46]**

0 NO, not employed **[ASK Q.43]** 1 YES, employed **[GO TO Q.44]**

43) Is she/he . . .

1 unemployed, looking for work
2 unemployed, not looking for work
3 unable to work due to health condition
4 homemaker
5 retired

[SKIP Q.44 AND 45; GO TO Q.46]

44) **[IF SPOUSE EMPLOYED]** Is she/he . . .

1 full-time (36+ hr/wk)
2 part-time (up to 35 hr/wk)
3 employed but not at work due to illness, vacation, temporary layoff, strike, etc.
4 self employed, full-time
5 self employed, part-time

45) Is this a permanent or temporary job?

1 permanent
2 temporary

46) **[ASK EVERYONE]** Does your total household income include any of the following kinds of payments, right now or in the last year?

1 Food stamps
2 Aid to Families with Dependent Children (AFDC)
3 Unemployment pay
4 Worker's Compensation
5 JOBS program allowance/JTPA (this sometimes includes transportation, child care allowance, housing subsidies)
6 Supplemental Security Income (SSI)
7 WIC
8 Social Security (transfer payments--disability, veteran's, retirement, survivors)
9 None of the above
18 other _____
19 don't know

47) I'm going to read some yearly income ranges. Considering all sources of income, (including the ones we just talked about **[IF ANY CIRCLED]**), can you tell me the range that's closest to your total household income?

1 less than $ 5,000
2 $ 5,000 - $ 9,999
3 $10,000 - $14,999
4 $15,000 - $19,999
5 $20,000 - $24,999
6 $25,000 - $29,999
7 $30,000 or more
19 Don't know

48) Have you moved in the last year?

1 yes 0 no **[GO TO Q.50]**

49) **[IF YES]** How many times in the past year? _____

SECTION C: FAMILY/HOME LIFE

Now I'd like to ask you some questions about your family and home life.

50) Do you own your home, do you rent, or have some other arrangement? **[CIRCLE ONE]**

1 own
2 rent
18 other _____

51) How many people live in your home (including yourself)? **[IF NO CHILDREN IN THE HOME GO TO Q.61)**

_____ adults _____ children 18 or under

52) **[IF ANY UNDER 18]** How many in each of these age groups?

____ under 5 ____ age 5-11 ____ age 12-18

53) Are any of these children in Head Start, a pre-school program or school?

1 Head Start or preschool; 2 School; 3 Both; 4 Neither
[IF CHILDREN IN SCHOOL, HEAD START OR PRE-SCHOOL, ASK Q.54-60; IF NO CHILDREN IN SCHOOL GO TO Q.61]

54) In the last month, how often have you helped your children with their school work?

1 Never
2 Rarely (once or twice)
3 Sometimes (three to five times)
4 Often (six times or more)

55) How often have you talked with them about school in the last month?

1 Never
2 Rarely (once or twice)
3 Sometimes (three to five times)
4 Often (six times or more)

56) How many times in the past year have you visited or called teachers about your children's progress?

1 None
2 Once, twice, three times
3 Four or more times

57) Why would you call or visit your child's teacher? **[CIRCLE ALL REASONS GIVEN]**

1 To regularly check on her/his progress
2 If there are problems with her/his behavior or school work
18 Other _____

58) Do you attend school activities, other than sports?

1 yes **[ASK Q.59,60]** 0 no **[GO TO Q.61]**

59) **[IF YES]** How many school activities, other than sports, have you attended in the last year?

1 None
2 One to three
3 Four or more

60) What kinds of school activities have you attended?

_____
_____
_____

61) **[ASK EVERYONE]** Do you have any children who left school before getting their high school diploma?

1 yes 0 no **[GO TO Q.62]**

[IF YES, COMPLETE FOR EACH CHILD]

	Years of school completed	CHECK THIS BOX IF RECEIVED GED
Child #1		
Child #2		
Child #3		
Child #4 **[IF MORE SPACE NEEDED, USE SPACE BELOW OR SEPARATE PAGE]**		

[ASK EVERYONE] I am going to read you some more statements. Please tell me if you strongly agree, agree, disagree, or strongly disagree with each sentence. You may be undecided, and if so just tell me.

		SA	A	UND	D	SD	N/A
62)	A book is a good gift for a child	5	4	3	2	1	
63)	Reading gives a person ideas to share with other people	5	4	3	2	1	
64)	I have friends who have problems reading	1	2	3	4	5	
65)	People who can read will get a better job	5	4	3	2	1	
66)	**[IF MARRIED]** I have a good relationship with my spouse	5	4	3	2	1	99
67)	**[IF CHILDREN IN SCHOOL ASK Q.67-70]** Most of the time my children like school	5	4	3	2	1	99
68)	I am satisfied with how my children are doing with their school work	5	4	3	2	1	99
69)	I am satisfied with my children's behavior in school	5	4	3	2	1	99
70)	I expect my children to receive a high school diploma	5	4	3	2	1	99

SECTION D: ROSENBERG SELF ESTEEM ASSESSMENT

Now I'm going to ask you if you agree or disagree with a number of statements about yourself and your feelings. As before tell me if you strongly agree, agree, disagree, strongly disagree or if you are undecided. **[CIRCLE NUMBER UNDER ANSWER GIVEN]**

		SA	A	UN	D	SD
71)	I feel pretty healthy most of the time.	5	4	3	2	1
72)	On the whole I am satisfied with myself.	5	4	3	2	1
73)	At times I think I am no good at all.	1	2	3	4	5
74)	I feel that I have a number of good qualities.	5	4	3	2	1
75)	I am able to do things as well as most other people.	5	4	3	2	1
76)	I feel I do not have much to be proud of.	1	2	3	4	5
77)	I certainly feel useless at times.	1	2	3	4	5
78)	I feel that I'm a person of worth at least on an equal level with others.	5	4	3	2	1
79)	I wish I could have more respect for myself.	1	2	3	4	5
80)	All in all I am inclined to feel that I am a failure.	1	2	3	4	5
81)	I take a positive attitude toward myself.	5	4	3	2	1

SECTION E: POLITICS AND COMMUNITY INVOLVEMENT

Now I'd like to ask you a few questions about politics and your community.

82) Are you a registered voter?

1 yes 0 no **[GO TO A.84]**

83) **[IF YES]** Have you voted in any election in the last four years?

1 yes 0 no

84) I'm going to read a list of clubs and organizations that some people belong to. Please tell me if you belong to one.

[CHECK BOX IF RESPONDENT BELONGS TO THE CLUB OR ORGANIZATION; FOR EACH YES,] How active are you in their activities? **[CIRCLE NUMBER UNDER ANSWER]**

		Very	Somewhat	Not Very	Not at all
church or synagogue	[ ]	4	3	2	1
fraternal lodges, veterans' or service organizations	[ ]	4	3	2	1
parent-teacher association, organization (PTA,PTO)	[ ]	4	3	2	1
labor unions	[ ]	4	3	2	1
youth groups (Scout Leaders, Little League Managers, etc.)	[ ]	4	3	2	1
neighborhood or community associations	[ ]	4	3	2	1
social or sports group	[ ]	4	3	2	1
other _____	[ ]	4	3	2	1

I don't belong to any club or organization [ ] 18

I'm going to read some more statements. Again, please tell me if you agree strongly, agree, are undecided, disagree, or disagree strongly.

		SA	A	UND	D	SD
85)	My community does not have good quality public schools	1	2	3	4	5
86)	My neighborhood is a safe place to live	5	4	3	2	1
87)	I am satisfied with my community	5	4	3	2	1
88)	I worry about environmental problems in my community	5	4	3	2	1
89)	I am more interested in what goes on in my own community than in the rest of the world	1	2	3	4	5
90)	I feel hopeful about the future	5	4	3	2	1
91)	As a citizen I can help bring about needed change in government	5	4	3	2	1
92)	Public officials don't show enough concern for ordinary people	5	4	3	2	1

SECTION F: ACTIVITIES

Now I am going to ask you how often you do various activities. Some may not apply to you, but for those that do please tell me if you regularly do, sometimes do, rarely do, or never do them.

HOW OFTEN DO YOU . . . ?		reg	some	rare	never	N/A
93)	use the public library	4	3	2	1	
94)	read magazines, newspapers, or books	4	3	2	1	
95)	[IF CHILDREN AT HOME] read books to your children	4	3	2	1	99
96)	[IF CHILDREN AT HOME] tell your children stories	4	3	2	1	99
97)	pay bills yourself	4	3	2	1	
98)	talk with neighbors	4	3	2	1	
99)	need to memorize things because you can't read well enough	4	3	2	1	
100)	[IF MARRIED] have arguments with your spouse	1	2	3	4	99
101)	attend community meetings	4	3	2	1	
102)	how often does your health keep you from doing things you want to do	1	2	3	4	
103)	talk politics with friends and family	4	3	2	1	
104)	[IF NOT EMPLOYED GO TO Q.109] have problems understanding rules and regulations at work	1	2	3	4	99
105)	need to write on the job	1	2	3	4	99
106)	work with numbers on the job	1	2	3	4	99
107)	need to read to get your work done	1	2	3	4	99
108)	miss work because of illness	1	2	3	4	99

SECTION G: PHYSICAL WELL BEING

We have one last set of questions, these dealing with your physical well being.

109) Do you have any major physical or health problems at this time?

1 yes 0 no

110) Do you have a family doctor? 1 yes 0 no

111) Do you visit the local public health clinic?

1 yes 0 no

112) **[IF CHILDREN LIVING AT HOME]** Do you take your children to the doctor or public health clinic for shots and regular check-ups?

1 yes 0 no

113) How often do you go to the dentist?

1 never
2 only when needed
3 once a year
4 every six months
18 other _____

114) **[IF CHILDREN LIVING AT HOME]** Do you take your children to the dentist for regular check-ups?

1 yes 0 no

115) Do you and your family have any medical insurance, or are you covered by Medicaid or Medicare? **[CHECK ALL THAT APPLY]**

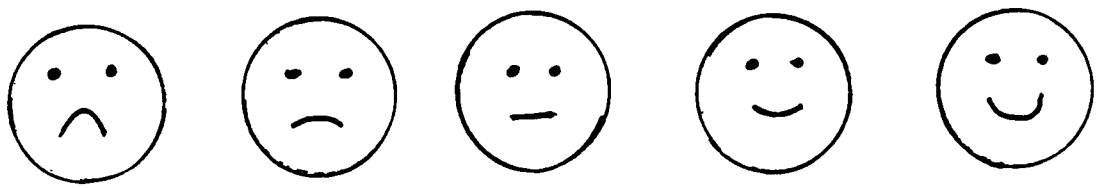
1 no coverage **[GO TO Q.117]**
2 Medicare
3 Medicaid
4 Private health insurance
5 Employer-paid health insurance

116) Who is covered? **[CIRCLE NUMBER UNDER ALL ANSWERS GIVEN; IF NOT MARRIED OR NO CHILDREN, CIRCLE 99]**

	COVERED	NOT COVERED	N/A
self	1	0	99
spouse	1	0	99
children or other dependents	1	0	99

117) Here are some faces expressing various feelings **[SHOW RESPONDENT CARD WITH FACES ON IT]**. Think for a moment what each face means to you. Point to the face that comes closest to expressing how you feel about. . .

Your house or apartment	1	2	3	4	5
The city or neighborhood where you live	1	2	3	4	5
The community where you live	1	2	3	4	5
Our national government	1	2	3	4	5
[IF EMPLOYED] Your work	1	2	3	4	5
Your non-working activities, hobbies, and so on	1	2	3	4	5
Your religion	1	2	3	4	5
Organizations you belong to	1	2	3	4	5
[IF MARRIED] Your marriage	1	2	3	4	5
Your family life	1	2	3	4	5
Your friendships	1	2	3	4	5
Your health/ physical condition	1	2	3	4	5
Your financial situation	1	2	3	4	5
Your life in general	1	2	3	4	5



1 2 3 4 5

Respondent ID # _____

ABE-1 LONGITUDINAL STUDY: Follow-Up Information

YOUR NAME _____
first last

YOUR ADDRESS _____
street apt. #

_____
city state zip code

YOUR TELEPHONE NUMBER ( ) - - (home)
( ) - - (work)

The University of Tennessee would like to do a follow-up interview in about a year with some of the people who complete this interview. Would you be willing to be interviewed again later?

[ ] Yes [ ] No **[IF NO, END INTERVIEW]**

[IF YES] In case you move in the next year or so, please give us the names and telephone numbers of two people with whom you will not lose touch, so that we can find you.

#1 NAME _____

ADDRESS _____
street apt. #

_____
city state zip code

TELEPHONE NUMBER ( ) -

How do you know this person? **Circle:** friend relative other_____

#2 NAME _____

ADDRESS _____
street apt. #

_____
city state zip code

TELEPHONE NUMBER ( ) -

How do you know this person? **Circle:** friend relative other_____

THANK YOU VERY MUCH FOR HELPING US WITH THIS STUDY. WE APPRECIATE YOUR TIME.

APPENDIX B

MEASUREMENT OF VARIABLES

Phase 1. Pre-Enrollment Attributes:

I. Family Background

1. PARENT'S EDUCATION
*Item 11: Mother/father left "school before receiving high school diploma"
1 yes
0 no

Item 13: (If parent left school,) was GED later received?
1 yes
0 no

LEARNERS WHOSE PARENTS RECEIVED A HIGH SCHOOL DIPLOMA/GED:
Combined format for statistical analysis:
Mother and/or father:
1 received diploma or GED
0 no diploma or GED received

II. Individual Attributes

1. SEX
Item 1: 1 male
0 female

2. AGE
Item 2: Computed age from date of birth of ABE participant

3. RACE
Item 4: 1 White
2 Black
3 Asian
4 Hispanic
18 Other

Combined format for statistical analysis:
1 White
2 Black

4. MARITAL STATUS
Item 5: 1 Married
0 Not married

*Note: Source of variable is indicated by item number enclosed in parentheses. Non-numeric sources indicate the source as the Center for Literacy Studies (CLS).

5. HOURS OF WORK
   Item 29: How many hours per week do you usually work?
   ___hrs.

   Number of work hours

6. INCOME
   Item 30: Hourly rate of pay

7. SELF-ESTEEM
   Items 72-81:
   Rosenberg's Self-Esteem Scale (possible score range 1 to 5):
   Mean composite score,
   5=Strongly Agree
   4=Agree
   3=Undecided
   2=Disagree
   1=Strong Disagree

   #72 On the whole I am satisfied with myself.
   #74 I feel that I have a number of good qualities.
   #75 I am able to do things as well as most other people.
   #78 I feel that I'm a person of worth at least on an equal level with others.
   #81 I take a positive attitude toward myself.

   Reversed scoring in following items:
   #73 At times I think I am no good at all.
   #76 I feel I do not have much to be proud of.
   #77 I certainly feel useless at times.
   #79 I wish I could have more respect for myself.
   #80 All in all I am inclined to feel that I am a failure.

III. <u>Pre-ABE Schooling</u>

1. GRADE
   Item 8 Last grade of school completed; mean grade completed

Phase 2: Transition to Educational Program:

I. Learning Press

1. LIFE SATISFACTION (#117)
   A Likert-type scale response was used with 5 faces displayed on an interviewer card. Respondents were asked to point to the "face that comes closest to expressing how you feel about..." various aspects of life; these expressions ranged from 1=frown representing a sentiment similar to "very dissatisfied" to 5=smile for a sentiment similar to "very satisfied."

   Response score on feelings about... "your life in general"

2. WORK ENVIRONMENT
   Items 37-39:
   Response score on Likert-type scale:
   5=Strongly Agree
   4=Agree
   3=Undecided
   2=Disagree
   1=Strong Disagree

   #37 I am satisfied with my present job.
   #38 I have a lot of responsibility at work.

   Reversed scoring for the following item:
   #39 With my present skill level, I have no chance for promotion.

3. LITERACY REQUIREMENTS --
   A. PERSONAL:
   Frequency of occurrence with which they ...
   (4-point scale)
   4 Regularly do
   3 Sometimes do
   2 Rarely do
   1 Never do

   #99 Need to memorize (information to compensate for inability to read)

   B. ON THE JOB:
   Reversed scoring for the following items:
   #104 (If employed), have problems understanding rules and regs at work
   #105 (If employed), need to write on the job
   #106 (If employed), work with numbers on job
   #107 (If employed), need to read to get work done

II. Goal Clarity

1. REASON FOR ENROLLING
   Item 14 Panel judgment of clarity using open responses to question, "What is the main reason you are enrolling in this program? Why?
   1 Clear goals
   0 Unclear goals

Phase 3: ABE Learner-Literate Environment Interaction/Integration Variables:

I. Academic Integration

1. ACADEMIC LITERACY ACTIVITIES
   Items 94-95
   Frequency of occurrence with which they ... (4 point scale)
   4 Regularly do
   3 Sometimes do
   2 Rarely do
   1 Never do

   #94 Read magazines, newspapers or books
   #95 (If children at home), read books to children

II. Social Interaction

1. ATTENDANCE
   Total number of instructional hours attended by student according to telephone interviews between CLS and ABE programs

III. Cultural Interaction

1. INVOLVEMENT IN CHILD'S SCHOOL WORK
   Items 54-55
   Frequency of involvement; two items tested separately (4 point scale)
   1 Never
   2 Rarely (once or twice)
   3 Sometimes (three to five times)
   4 Often (six times or more)

   #54 (If children at home), in the last month, how often have you helped your children with their school work?
   #55 (If children at home), how often have you talked with them about school in the last month?

2. COMMUNITY INVOLVEMENT
Items 82-84

#82 Are you a registered voter?
1 yes
0 no

#84 (If you belong to a club or organization) how active are you in related activities? (church or synagogue, fraternal lodges, veterans' or service organizations, parent-teacher association, organization (PTA/PTO), labor unions, youth groups (Scout Leaders, Little League Managers, etc.), neighborhood or community associations, social or sports groups)

How active are you in related activities?
4 Very active
3 Somewhat active
2 Not very active
1 Not at all active
Level of involvement was measured in terms of the club or organization, if any, in which the individual was most active.

3. COMMUNITY-ORIENTED LITERACY ACTIVITIES
Frequency of involvement in various activities; items tested separately. (4 point scale)
4 Regularly do
3 Sometimes do
2 Rarely do
1 Never do

#93 Use the public library
#98 Talk with neighbors
#101 Attend community meetings

IV. Cultural Integration

1. LITERACY ATTITUDES
   Mean score on Likert-type scale:
   5=Strongly Agree
   4=Agree
   3=Undecided
   2=Disagree
   1=Strong Disagree

   #62 A book is a good gift for a child.
   #63 Reading gives a person ideas to share with others.
   #65 People who read can get a better job.
   #67 (If children at home), most of the time my children like school.
   #70 (If children at home), I expect my children to receive a high school diploma.

Phase 5. Outcome

Persistence vs. Dropout

1. PERSISTENCE (CLS files):
   Whether the ABE student remained in the program until the end of the school year in June 1992.

2. DROP-OUT: The ABE student did not remain in the program until June 1992.

VITA

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She is president of Adult Education Services, Inc., an educational consulting firm located in Walland. She is also employed as a part-time GED instructor with the Blount County Adult Education Program.