STUDYING THE ALL-BUT-DISSERTATION
PHENOMENON

by

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ABSTRACT

When doctoral students complete all required coursework, pass the comprehensive examinations, and develop a proposal for an original piece of research which demonstrates their competence, they are admitted to candidacy. Because at this stage the execution and defence of the dissertation still remain, students become classified as ABD or All But Dissertation. Some never complete their dissertation, and never progress beyond ABD status.

University administrators, the graduate programs they provide, the supervisors of doctoral students, and the doctoral students themselves, are all vested in the outcomes of doctoral education. Doctoral education is one of the primary functions of research universities. Yet studies indicate that only 50 percent of students who start a doctoral program manage to complete it. The reasons for this high level of doctoral student attrition are relatively unexamined: how and why doctoral students arrive at the decision to withdraw isn't fully understood. The current study addresses the issue by developing and pilot testing an instrument to begin investigating the All But Dissertation (ABD) phenomenon.

When an extensive search of the literature on dropouts revealed little information on post-graduate attrition, theory-based research on undergraduate dropout was examined to determine its applicability at the doctoral level. Based on two major theories of undergraduate dropout, (Tinto, 1975; Bean, 1982) a conceptual model was developed to provide the theoretical framework for the current study. Five constructs - - Background, Environment, Organization, Attitude, and Intent - - were incorporated into the model in order to guide the investigation of the personal and contextual factors affecting doctoral students’ completion of their programs.
In-depth interviews, used in the context of the multiple case study method, were employed with six current doctoral students at the ABD stage to pilot test an instrument designed specifically for this study. A self-report measure of procrastination (Tuckman, 1991) was used in conjunction with the interview schedule to address psychological characteristics missing from earlier studies. The interview schedule and procrastination scale were not tested with any TABDs (Terminal All But Dissertation).

Findings indicate that the instrument developed for this study is adequate for collecting data on ABD students enrolled in an adult education doctoral program. As such, it could prove useful to future researchers collecting data on the ABD phenomenon.
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CHAPTER 1
INTRODUCTION

This thesis is a report of a study to develop a data collection process to investigate factors affecting non-completion of the doctoral degree. It considers the plight of doctoral students who do not complete their dissertation within the time allowed and therefore are not granted the doctoral degree. They become part of a group known as ABD's, which stands for All But Dissertation. We know little about these students' perception of their graduate experience. As a result questions about the personal and contextual factors which influence their decision to withdraw are raised. This chapter provides a background to the study, a brief history of the doctoral degree, introduces the ABD phenomenon, states the problem, and describes the purpose and research questions. An overview of the stages of the study is included.

Background to the Study

University student attrition is a problem of some significance both at the undergraduate and graduate levels. Gilbert and Gomme (1986), in Future Directions in Research on Voluntary Attrition from Colleges and Universities, report that for undergraduates

Attrition rates in the US and Canada are quite high. Terenzini and Pascarella (1977) reported that US rates persisted at the 50% level during the first half of the twentieth century, and they asserted that these rates hold for the present. Similarly, Pantages and Creedon (1978) estimated that of every ten students who undertake higher education in the US, only four will graduate from the institution entered. Tinto's (1982) calculation of BA completion rates for higher education in the US 1880-1980 also shows remarkable stability. Apart from world war II, and the immediate post-war period, approximately 55% of students completed their degrees while about 45% dropped out. In a recent review of Canadian research on attrition, Pascal and Kanowich (1979) suggested that the problem is no less severe in Canadian institutions of higher learning (p 227).

Despite the extensive literature, research on the nature of the higher-education dropout process is uneven. Prior to 1970, studies tended to be descriptive and correlational;
attrition was linked to student characteristics (Vander Well and Sartoris, 1973), or to institutional traits (Robinson, 1969).

During the seventies, researchers began to treat the student’s decision to persist or withdraw as the outcome of a longitudinal multivariate process. The need for theory-based research was recognized in the construction of conceptual models of attrition which incorporated multivariate designs and refined statistical procedures. The explanatory longitudinal models, first created by Spady (1970) and later refined by Tinto (1975), served as inspiration for considerable subsequent research.

When students fail to complete a degree program significant costs are incurred -- by the students themselves, by the universities they leave, and by society at large. The students who discontinue may lose their monetary investment in fees, books, and additional living expenses incurred by relocating to meet residency requirements. The lack of the academic credential may limit future earnings, and, whatever the reason, their failure to achieve may contribute to a negative self-concept and a sense of personal frustration. Universities experience direct financial losses, both through the high initial cost of admitting students, and from the expenses associated with developing and administering programs for students who subsequently cease to attend. Mason (1992) suggests that generally, . . . students pay somewhere between twenty and thirty percent of the actual total cost of a program offered at public universities (p 81). Another consideration is that an unsuccessful student occupies a place that a potentially successful applicant who was not admitted could have used. In terms of the cost to society at large: high rates of attrition may erode the confidence of the taxpayering public that the universities are able to meet the intellectual requirements of their students, and create the perception of a less than optimal investment of tax dollars by the government.

High attrition rates are not confined to undergraduate programs. A similar problem has been recognized at the graduate and postgraduate levels, but has not received the same amount of attention. Attrition rates in doctoral degree programs warrant investigation.
The Doctoral Degree

Anderson (1992) reports Yale University awarded the first three American PhD degrees in 1861. The requirements at the beginning were: (1) two years of course work past the bachelor's degree, (2) a comprehensive final examination, and (3) a written dissertation (p 73). Quality of thought in the dissertation was valued over length. James Morris Whitton was one of the inaugural PhDs. His Yale dissertation was a six-page handwritten thesis in Latin on the proverb *Brevis vita, ars longa* (life is brief, the arts endure).

The doctoral degree awarded by most universities is a research degree certifying that the recipient has capabilities and training for independent scholarly work. The doctoral dissertation, and sometimes the associated final oral examination or defence of the study, is the culmination of the degree program.

Simpson (1987) points out the legendary difficulty of the troublesome and challenging transition from course-work to dissertation research:

Movement from the structured environment of course work to the essentially lonely activity of independent and original research involves a shift in tempo which most find traumatic and many find unmanageable (p 111).

There are many pressures inherent in the research process for the dissertation which make it inevitable that a certain number of students will not see it through to completion. Those who do not complete their dissertation will not receive their doctorate. These students become known as ABD's, the somewhat dubious distinction that graduate students obtain when they have completed all required coursework and comprehensive examinations. At that point the only thing standing between the graduate student and the doctorate is the dissertation, an original piece of research that makes a contribution to the field and demonstrates the competency of the doctoral candidate.

The phenomenon of the ABD is not confined to the late twentieth century. Ziolkowski (1990) reports on an infamous, historical example:

Two hundred years ago, Johann Wolfgang Goethe provided a precise model of the type. As a law student at the University of Strasbourg in 1770-71, Goethe, as undisciplined as he was...
brilliant, wasted his first year in extracurricular activities and then, as the deadline approached, hastily patched together a dissertation which was straightway [sic] rejected by his professors. On the basis of an oral examination he received a licence to practice law -- but no doctorate . . . Goethe went on to do quite nicely for himself, acting among other capacities as minister for higher education in the duchy of Saxe-Weimar. Moreover, his revenge on the institution was sublime: shortly after the rejection, he wrote the sections of Faust in which the university and its practices are wickedly satirized by Mephistopheles posing as a professor (p 185).

The purpose of the dissertation is twofold. First, it demonstrates the candidate’s competence to address an important problem in the field independently. Second, it makes an original contribution to knowledge in the field. Isaac, Quinlan, and Walker (1992) state:

Quite apart from the specific characteristics of the doctoral dissertation as a process and a document in itself, the dissertation also can be viewed as reflecting much of our academic and intellectual culture (p 242).

This observation would suggest that the dissertation not only reflects the capabilities of the author, but also reflects on the work of the advisor, and may affect the reputation of the program or department and, one would assume, the university itself.

The dissertation can be seen to have informal emotional and historical importance which extend beyond the document itself. The dissertation process allows the student to become a colleague of the advisor. The document itself provides a historical record of the student’s accomplishment and provides the common core of most doctoral programs, which may differ in almost every other respect.

Statement Of The Problem

The topic of doctoral candidates who never complete their dissertation, and therefore fail to earn their doctorate, has not received much systematic study. Although such candidates are not a new phenomenon little is known about them and their perceptions of the graduate training experience. Therefore without such knowledge professors who supervise these educational programs are inadequately informed about whether and what sort of remedial action might be effective.
Purpose

The purpose of this study is to develop and pilot test an instrument to investigate the All But Dissertation phenomenon. The perspective of this research is that of a single organization, The University of British Columbia, and doctoral attrition/persistance is associated with membership in the field of Adult Education.

Research Questions

The development of the instrument is guided by the following questions:

-- What are the personal and contextual factors influencing the decision to withdraw from a doctoral program?

-- How do ABDs arrive at the decision to disengage?

-- How do ABDs perceive their situation?

In addition to theoretical interest, knowledge of the ABD phenomenon should be of value to university administrators, graduate advisors, and others interested in improving programs aimed at increasing the number of doctoral students who successfully complete their programs.

Summary

This chapter provided a brief background and history of the doctoral degree. The ABD phenomenon was introduced and explained. A statement of the problem and purpose of the study were developed. Research questions to guide the study were formulated. Chapter Two contains a review of the literature describing early theory-based studies of student dropout and withdrawal. Two models, one of student attrition, and one of student integration are analyzed. A further review of the literature explores sub-categories of stopping out, academic and decisional procrastination, as well as ability to pay. A melding of two theories of dropout is explored and a conceptual framework for the study is developed. In Chapter Three a conceptual model is developed to provide the theoretical
framework for the study. The variables used in this study are defined and a conceptual model depicts their arrangement. An overview of the methodology is provided and the unit of analysis identified. A pilot case study protocol is developed to guide data collection. Chapter Four includes the pre-pilot and pilot study reports. The analysis of the data, reporting and interpretation of the results are contained in Chapter Five. The conclusions and implications of the study are found in Chapter Six. Appendix A contains the Case Study Protocol and Interview Schedule. Appendix B holds the case reports and participant profiles. The Analysis, Results and Interpretation of the Data Collected in the Pilot Studies is contained in Appendix C.
CHAPTER 2
REVIEW OF THE LITERATURE

This chapter details the results of a two-part literature search conducted on dropouts. Initially there is a need to delimit the scope of the review to concentrate on attrition/persistence theories and the models that were subsequently developed because of the vast amount of literature which relates to dropouts in general. Models developed by Spady (1970), Tinto (1975), and Bean (1982) are studied in detail. Similarities of the Tinto and Bean models are investigated for applicability to the current study of the ABD phenomenon. In the second part of the literature review subcategories of stopping out, academic and decisional procrastination, as well as ability to pay are explored, and a conceptual framework for the study is developed. The possibility of melding two theories is investigated.

Literature Search

The literature search uncovered a vast amount of material which appeared, at first, to relate to the topic. However, on closer scrutiny, a problem of inconsistent terminology emerged. Those who failed to complete their studies were referenced in various ways -- dropouts, non-persisters, leavers, withdrawers, non-completers, or departers. Those who completed received inverse descriptions -- stay-ins, persisters, completers. Whether or not these descriptions were synonymous could not be determined. For the purpose of this review and for consistency, wherever possible those who do not complete a degree are called dropouts. The terms withdrawal behaviour or withdrawing refer to the action of an individual who exits a program prior to completion of the stated requirements and as such fits the term of dropout. The uneven quality of the research literature complicated the
review, as did the overwhelming amount of material available. The task became one of delimiting the scope of the review.

**Delimiting the Scope of the Review**

The research material selected was limited to seminal studies of college student dropout and those subsequent studies which adopt the theoretical frameworks presented in the seminal studies. These studies were located through computer searches of the literature on dropouts from institutions of higher education, and identifying the most frequently cited theoretical models. These studies were then reviewed to discern the origins of the theoretical foundations used to develop the models of dropout. The primary references listed in these studies were consulted to confirm an understanding of the relevant theories. While these studies were largely concerned with dropout at the undergraduate level, with scant attention paid to attrition at the graduate or post graduate level, it was assumed that the theories might prove beneficial in investigating attrition at the doctoral level.

In the social sciences, the true extent of attrition by all-but-dissertation (ABD) doctoral students is not well documented. There appears to be little experimental interest in the plight of the ABD. Simpson (1987) argues:

> The question of what determines success in graduate school continues to attract attention, but most studies of this phenomenon are concerned with overall success rates -- e.g. success rates as proportions of those entering doctoral programs. A high proportion of these studies are concerned with the psychological characteristics of the successful student, and with predictive identification of the successful graduate school applicant. External influences . . . affecting the ABD are rarely given attention in these discussions (p 113).

Because of such limitations, the literature search reported here concentrates on the theories and models of higher education dropout reported in the literature between 1970 and 1990. This time frame was chosen because prior to 1970 attrition research was mainly atheoretical. Spady's (1970) research is the first example of a model of attrition which provides a theoretical rationale which covers collegiate academic and social systems simultaneously and links precollege experiences and attributes with later social and academic outcomes. Studies which focus on organizational or interactional theories of
Attrition/ persistence are reviewed for their potential to provide a framework for qualitative research into the ABD phenomenon.

Attrition/Persistence

Research literature on post graduate student attrition is sparse to say the least. No theoretical models of graduate or post graduate attrition/persistence were uncovered in the literature search. For this reason models developed to study undergraduates were reviewed to determine applicability at the graduate level. Undergraduate student attrition/persistence is of two types 1) atheoretical research and 2) theory-based research. Atheoretical studies of attrition are mainly descriptive studies concerned with the characteristics of dropouts. These studies do not posit a model or hypothesis-generating theory predicting the causal links between and among the variables which influence student attrition.

Atheoretical Research

According to Terenzini (1982), attrition studies which identify, and then survey by questionnaire, those students who have withdrawn from an institution, are atheoretical studies of retrospective or post-hoc design. He calls such studies "autopsies". Despite the commonsensical and often compelling reasons for withdrawing which emerge from such "autopsy" studies, they have certain limitations. No data are collected from comparison groups of non-dropouts. Thus, the dropout traits that they describe -- the characteristics, attitudes, or behaviors -- may or may not be different from those of non-dropouts. Another drawback of the autopsy design is that it tends to produce a comparatively low response rate. While in itself not problematic, a low response rate is generally accompanied by three unwelcome conditions - sample unrepresentativeness, a diminished likelihood of identifying reliable differences, and constraints on the choice of analytical procedures (Terenzini 1982). Atheoretical studies can identify who is leaving the institutions but not why they are leaving.
Theory-based studies had to be developed which linked the variables found in descriptive studies.

Theoretical Research

The theory-based studies of Spady (1970), Tinto (1975), and Bean (1982) employed longitudinal designs. They attempted to identify causal relationships among variables by studying the interaction between undergraduate students and the institutional environment. While these studies compared students who persisted with those who withdrew, they did not account for the reasons students gave for withdrawal. This poses questions about the significance of such reasons in the withdrawal decision, above and beyond the effects of the various theoretical constructs of these studies. Are the reasons given important factors in the decision to leave an institution? Or are they socially acceptable, post-hoc rationalizations which students offer after they have already decided to leave? Braxton, Brier and Hossler (1988), posit that these factors (reasons) exert their influence on the margins of the decision to persist or withdraw, after such theoretical constructs as institutional commitments, commitment to the goal of graduation, and experience with the academic and social systems of an institution, have been taken into account. While many publications identify an array of variables correlated with student attrition (Lenning 1982), relatively few theoretical conceptual models explain how and why these variables affect student attrition.

Models and Theories of Dropout

The models developed by Spady (1970,1971), Tinto (1975), and Bean (1980,1982) all emphasize that student retention is not the result of individual or institutional factors alone, but rather of the interaction between the two.
Spady's Model

The purpose of Spady’s (1970) research was to demonstrate how the variables in a theoretical model were operationalized within the framework of a single longitudinal study, and analyze how the separate components and their interrelationships may help to explain the undergraduate attrition process. Spady (1970) defines a dropout as anyone leaving a college at which he is registered (p 65). Following a review of research on college dropouts in the decade between 1960 and 1970, Spady developed a model to provide a theoretical rationale simultaneously covering collegiate academic and social systems, and linking precollegiate experiences and attributes with later social and academic outcomes. An extensive search for empirical studies on attrition from higher education in Canada failed to yield any material pertinent to the years in question. Consequently, the information used to develop the model related to U.S. four-year undergraduate colleges and universities. When operationalized Spady’s (1970) model represented a synthesis and extension of Durkheim’s theory of suicide.

Durkheim (1951) describes an "egoistic" type of suicide likely to occur when...the individual ego asserts itself to excess in the face of the social ego and at its expense. (p 209). Excessive egoism occurs when individuals detach from social life. Durkheim concludes...suicide varies inversely with the degree of integration of the social groups [in either religious, domestic, or political society] of which the individual forms a part (p 209). In other words, the likelihood of this type of suicide increases when individuals lack moral integration or collective affiliation with the fabric of society, perhaps because their values differ, or as a result of inadequate social interaction. Durkheim states:

There is, in short, in a cohesive and animated society a constant interchange of ideas and feelings from all to each and each to all, something like a mutual moral support, which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted (p 210).

Accordingly, when a society is strongly integrated, it holds individuals under its control and the bond which unites them with the common cause allows them to place the interests of the society before their own.
Spady proposed that when the college is viewed as a social system with its own values and social structures, one can treat dropout from that social system as analogous to suicide in the wider society. Lack of integration into the social system of the college will lead to low commitment to that social system, and will increase the probability that individuals will decide to leave college and pursue alternative activities. He directed attention to the interaction between student attributes, such as dispositions, interests, attitudes, and skills, and the attributes of the university environment, such as the influences, expectations and demands it imposed. Spady's model (Figure 1) assumes the decision to leave a particular social system is the result of a complex social process involving the interaction of family and previous educational background, academic potential, normative congruence, friendship support, intellectual development, grade performance, social integration, satisfaction, and institutional commitment.

**Figure 1: Spady’s Model (1970)**
Spady’s population consisted of all 683 students who entered the College of the University of Chicago as freshmen in September 1965. Sixty-two percent were men and thirty-eight percent women. Individual totals of men and women were not provided.

The study design was a standard panel format which required the collection of data on the sample at distinct points in time. Three kinds of data were used in the study: (1) students’ admissions credentials and college records, (2) admissions application and a written forced-choice questionnaire mailed to the students two weeks prior to their orientation week in September 1965 and, (3) a second questionnaire distributed to all freshmen at the beginning of April 1966. The number and validity of items used in the questionnaires was not reported. Spady states merely that the first questionnaire consisted of multiple-choice items directed toward four general areas ...(p 41), and the second questionnaire contained a large number of multiple-choice items ...(p 41). No evidence of pilot testing of these instruments was reported.

The methodology section contained a statement that in-depth structured interviews were to be used. The only reported interviewing however, was the interviewing of friends and acquaintances [no numbers were provided] of the non-respondents to the instrument distributed in April 1966. This was done to gather supplementary information on 19 of the 23 students who had already withdrawn from the College by April 1966. This is the sole reporting of the number of students who withdrew from the College in the first year. After the first year regular checks of registration and graduation lists were made until January 1970, and revealed that after four and a half years, only fifty-one percent of the entering class had received a bachelor’s degree from the University with an additional eleven percent still registered. The number of students who withdrew in each of years two, three and four was not reported. Therefore, it cannot be determined whether or not the same factors that account for dropout after the first year continue to account for attrition at the later stages.

Multiple regression analysis was used to assess the independent contribution of each of the factors in the explanation of outcomes. A second analytical approach involved the
deletion of each variable cluster from the otherwise full regression model and the calculation of the drop in explained variance that results, to arrive at the unique contribution of the excluded set of variables. The 10 variables described in the model were: family background, academic potential, normative congruence, friendship support, grade performance, intellectual development, social integration, satisfaction, institutional commitment and dropout decision. Adequate operational definitions of these variables were provided.

Confusion arises in interpreting Spady’s report on the satisfaction (with the first year of college) variable. He states that... the two factors associated with academic and intellectual life appear to be relatively more important for men (p 51). However, the table of results (p 52) shows social integration to be the stronger variable accounting for 5.25 percent of explained variance while intellectual development contributed only 4.90 percent, both significant at .01 level. Spady explains the finding that academic performance had no bearing on institutional commitment by the fact that grades provide extrinsic satisfaction for students without influencing the more intrinsic and subjective aspects of their relationship to the social and academic systems of the College.

Spady’s finding that the hypothesized relationship between grade performance and social integration was of no consequence at all for either sex (p 50) was surprising in view of Durkheim’s emphasis on the centrality of the occupational role (which in this case is the student role) in generating meaningful ties to the social collectivity. Also, one would assume that since intellectual development accounts for 1.47 percent of the explained variance (significant at the .05 level), (p 51) grade performance would be an indication of that development. When one considers that Spady defines intellectual development as a principal component of four items from the second questionnaire. These items reflect the student’s stimulation in his course work, the expansion of his intellectual and cultural perspectives, his ability to think systematically and critically, and his perceived excellence in his academic work (p 44), the finding is especially puzzling.
Spady (1971) states that students in this entering class were classified as dropouts if they did not return and register for courses in October 1966 (p 44). Analysis of first-year dropouts indicate the dropout process for men was primarily explained by their inadequate grade performance, and only secondarily by their structural relationships, integration, and commitment to the social system of the college. For women, institutional commitment is by far the most powerful determinant of attrition followed by subculture orientations, structural relations, intellectual development and grade performance. This is predicated on Spady's results at the end of the first year, and no evidence is provided to suggest that this process remains the same over time.

Spady attempts to demonstrate the longitudinal nature of this study by reporting on graduation results of the original sample. These results are questionable as he assumes that the effects of the independent variables measured during the freshman year continue to have an impact on the attrition process in ensuing years. In a footnote he states "An extensive questionnaire tapping each of these variables was distributed to the sample during the later part of their third year in the College. The results of this data collection, however, have not been employed in the present analysis" (P 55). No reason was provided for not using this more current data. The results of this part of the study must therefore be regarded with some skepticism.

Spady's model suffers from a lack of methodological rigour in certain areas. This may be explained in part by the fact that the set of variables used in the model had not been operationalized and analyzed empirically before. There appears to be a stronger focus on retention of students than on the dropout process. It would be useful to know the numbers of men and women who dropped out, instead of the total percentage reported at the end of the first year. It would also be interesting to know how many dropped out between year one and year four. While it is possible that some of the students who did not return after the first year may have transferred to a university closer to home, or one with lower standards, this is not addressed.
While Spady's model is the first theoretical model in the literature designed to investigate dropout from higher education, certain considerations should be kept in mind when attempting to build on it. The application of Durkheim's theory of suicide to the phenomenon of dropout does not, in itself, yield a theory of dropout that helps explain how varying individuals come to adopt various forms of dropout behavior. Rather, it is a descriptive model that specifies the conditions under which varying types of dropout occur. Durkheim's treatment of suicide is a structural argument that does not explain the distribution of suicide within society among differing individuals. What is lacking is a set of factors which account for intra-societal variations, such as those pertaining to individual characteristics, especially those psychological attributes that predispose certain individuals toward suicidal responses.

Further, as colleges and universities include both social and academic systems, it is important to distinguish between normative and structural integration in the institution's academic domain from that in the institution's social domain. A student may be able to achieve integration in one area without doing so in the other.

While Spady's study has certain limitations his model nevertheless provides a useful theoretical framework on which other studies can build.

**Tinto's Model**

Tinto's model (1975), draws on the earlier work of Spady (1970, 1971), and is one of the most often cited and generally acknowledged models of dropout behaviour reported in the literature. Tinto (1975) builds on the work of Spady and Durkheim, developing a model to explain the process that motivates students to leave colleges and universities before graduating. He validates Spady's theoretical foundation of social integration, based on Durkheim's treatise on suicide, in understanding student attrition from higher education. Tinto considers the factors leading to a decision to withdraw from college, and lack of social integration as a factor leading to suicide, to be analogous. While Tinto's model is
developed as a result of a theoretical synthesis of recent research, and was not tested by him, it does nevertheless signify a turning point in the theoretical research on dropouts.

In brief, Tinto’s theoretical model of dropout (Figure 2), depicts the process of dropout from college as a longitudinal process of interactions between the individual and the academic and social systems of the college during which experiences (measured by normative and structural integration) modify goals and institutional commitments in ways which lead to persistence or dropout.

Figure 2. TINTO’S MODEL (1975)

As may be attested by its frequent citations and tests of validity, Tinto’s (1975) theory and model of dropout from higher education has become predominant in the field. Tinto (1975) summarizes his theory of integration as:
A longitudinal process of interactions between the individual and the academic and social systems of the college during which a person’s experiences in those systems (as measured by his normative and structural integration) continually modify his goal and institutional commitments in ways which lead to persistence and/or to varying forms of dropout (p 94).

According to Tinto,

Other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion (p 96).

Pascarella and Terenzini (1979) and Terenzini and Pascarella (1980), employing an instrument based on Tinto’s (1975) constructs, found that academic integration, social integration, and goal and institutional commitments, were consistent predictors of withdrawal behaviour. That interaction variables are good predictors was demonstrated by Pascarella and Terenzini (1980) in a study at Syracuse University. They used a thirty-four-item questionnaire with five interaction-variable scales that predicted 79 percent of the persisters and 76 percent of voluntary dropouts correctly. The five interaction-variables were peer group relations, informal interactions with the faculty, faculty’s concern for student development and teaching, academic and intellectual development, and institutional/goal commitments.

In contrast to Tinto’s (1975) report of approximate parity between social and academic integration in their effects on dropout, Munro (1981) using path analysis, found academic integration had a strong effect on persistence, whereas social integration had no significant effect (p 139), in subsequent dropout decisions. She reported direct effects of social integration (r = .076), and of academic integration (r = -.068) on persistence in the institution. Munro defines persistence as . . . the decision to remain in or to withdraw from the institution in which the student originally began study . . . (p 135).

While she was able to account for 14 percent of the variation in withdrawal behavior, there are a number of shortcomings in her report. As an example, she reported that her study supported the findings of recent research that the aspects of socio-economic status, ethnicity, and sex on persistence in higher education are mainly indirect, transmitted through
intervening variables (p 139). There were however, no citations for the "recent research" nor were the intervening variables identified. Her only acknowledgement of prior research is a statement that her study . . . *is guided by a theoretical model* (Tinto, 1975) [which] *extends a model advanced by Spady (1970, 1971) and incorporates work done by Rootman (1972) and Cope (1969)* (p 134). By doing this she ignores major bodies of literature which might provide a more inclusive coverage of the determinants of student attrition. While Munro's path analysis results generally support Tinto's (1975) model for all but one construct, the analysis does not disaggregate by institutional type. Therefore, it is difficult to determine if institutional characteristics are important aspects of her model or if the overall path model obtained is consistent for different kinds of institutions.

In reference to the present state of development of theoretical models and in particular his model which attempts to explain certain behaviors in disengagement from higher education, Tinto (1982), stated:

> What we took to be self-evident in its development has apparently proven not to be; namely that the model was developed to explain certain, not all, modes or facets of dropout behavior that may occur in particular types of higher educational settings.

Tinto was referring to the fact that his (1975) model was concerned with accounting for the differences, *within* academic institutions between academic failure and voluntary withdrawal. He went on to suggest that current theory cannot do, or explain, everything.

Researchers must also decide whether to strive for maximizing a model's ability to statistically account for variation in behaviors or its ability to clearly explain the origins of particular types of disengagement behaviors. The two are frequently mutually exclusive. Attempts to greatly increase a model's explanation of variance -- for instance through the inclusion of large numbers of variables -- often result in comparable loss in clarity of explanation (p 688).

He acknowledges his model does not give sufficient emphasis to the role of finances, stating that students are more likely to accept greater financial burdens to continue attendance when their experiences are positive, than when they're unsatisfactory (p 690).

Pascarella and Terenzini (1983), provide a path analytic test of Tinto's (1975), causal
model. They acknowledge the earlier work of Bean (1980) and Munro (1981) as supporting the predictive validity of parts of Tinto's model but emphasize the need for a comprehensive test of all of the constructs of the model to estimate their influence in an explanatory causal sequence. Using a sample, drawn from a computer generated list of residential university freshmen, data were collected during the 1976-1977, and 1977-1978 academic years. A detailed questionnaire was administered, and a response rate of 53 percent provided 763 subjects for the study. They documented the content and predictive validity of fifty-five items measuring three main variables in the causal model (initial commitments, academic integration, and social integration). Subsequent investigations by Pascarella and Chapman (1983), refined the scales through a series of factor analyses and reduced the fifty-five items to thirty. The Pascarella and Chapman study (1983) confirmed the construct and predictive validity of the measures by contrasting student retention among students at residential and commuter institutions. Data were collected during the 1978-1979, and 1979-1980 academic years from 2,326 full-time freshmen at eleven, 2-year and 4-year post secondary institutions. Subjects completed a questionnaire and provided data on academic and social integration items, (adapted directly from Tinto's (1975) model), and their background characteristics. The 2,326 students responding to the questionnaire represented an overall response rate of 35 percent. Discriminant analysis was used to determine the efficiency of the variables in correctly classifying persisters and withdrawals. In the path analysis only significant standardized path coefficients (beta weights) were retained, resulting in reduced path models for each validation. The significance criterion for retaining a path coefficient was \( p < .05 \). The variance in persistence/withdrawal decisions explained by the total model were quite modest, ranging from 13 percent to 17 percent (all significant at \( p < .01 \)). These percentages are consistent with the multi-institutional findings of Munro (1981), who reported that her model accounted for 14 percent of the variation in withdrawal behavior. The level of significance was not reported in Munro's study.
Pascarella and Terenzini (1979) investigated the interaction effects in Spady's and Tinto's conceptual models of college dropout using a detailed questionnaire to assess students expectations of the college experience and to collect background information. The questionnaire was administered in the summer prior to enrollment (n = 1457; 76.5% response). A second questionnaire, which sought information on the reality of the college experience, was administered during the spring of the year following enrollment (n = 773; 53.1% response). They found significant interactions between sex of student and the peer-group relations and institutional/goal commitment (F = 20.13, p < .01). Peer-group relations had a stronger positive influence on persistence for women (F = 11.62, p < .01), while institutional/goal commitment was more important for men (F = 25.40, p < .01). This indicates that the quality and impact of relations with peers were most important in positively influencing the persistence of women, while for men the goal of graduating from college, and the confidence they had made the right decision in choosing to attend that particular university, were most important.

Frequency of faculty contacts for discussion of personal problems was positively (though non-significantly) related to persistence for women but negatively related to persistence for men. Their results demonstrated that for men the relationship with faculty compensated for low levels of institutional/goal commitment and academic and intellectual development. For women however, frequent contacts (focussing on intellectual issues) with faculty compensated for low levels of satisfaction with the quality and impact of peer relationships. These findings provide support for Tinto's hypothesis of a potentially compensatory association between social and academic integration.

Tinto's model has served as the conceptual framework for numerous studies. However, a major gap in theory and applied research is the role of external factors in shaping perceptions, commitments, and preferences. Bean (1980,1982,1983) has advanced an alternative model which includes external factors to explain the attrition process.
Bean's Model

Bean (1980) discovered a problem with the Spady (1970), and Tinto (1975) models in that the definition of variables used in the analysis rendered the models unsuitable for path analysis. He found that strict attention was not paid either to the recursiveness (directional causality) of the variables in the theoretical models, or to the discreteness of the variables (p 156). When major clusters of variables are contained in a definition such as Spady’s (1971) normative congruence which contains five clusters, no conclusions can be drawn as to which of the elements of the measure are significant. Bean (1980) structured his study to be consistent with the work done on Tinto’s model, but using theories derived from studies of turnover in work organizations. Bean defines student attrition as the cessation of individual student membership in an institution of higher education (p 157). His causal model contained four categories of variables, the dependent variable, dropout; the intervening variables, satisfaction and institutional commitment; the organizational determinants; and the background variables. Bean contends that organizational determinants are expected to affect satisfaction, which in turn is expected to influence dropout. He used university GPA as a surrogate for pay, which is viewed as an indicator of turnover in work organizations. Spady (1970) considered grades extrinsic and used as tangible resources in the quasi-occupational role-playing of the career oriented in his negotiations for improved opportunity for success (p 77).

To test his model Bean (1980) developed and pilot tested an instrument (a questionnaire containing 107 items) which was administered to a freshman composition program (N = 1,836), at a major midwestern university in December 1977. The 1,195 responses represented a return rate of 66 percent. Two homogenous subsamples of 366 men and 541 women were selected comprising only single students under 22 years of age who were Caucasian, U.S. citizens. Four organizational variables were also controlled by selection: current semester was the student’s first; transfers were excluded; only freshmen were included; and only full-time students were included. From the data collected with the
questionnaires measures of 28 variables were obtained. Fifteen indices for variables were constructed through the use of factor analysis. Dropout was ascertained through registration information provided by the university registrar in the fall semester of 1978.

Results indicate that for women, three variables were statistically significant in explaining dropout. The beta weights reported were: institutional commitment (-.47), institutional quality (.11), and routinization (.10). For men, four variables were significantly related to dropout. The beta weights were: institutional commitment (-.29), routinization (.15), satisfaction (.14), and communication (rules) (-.13). For both sexes, the most important indicator of dropout was the intervening variable, institutional commitment. For women this was more than 4 1/2 times as important as institutional quality (the nearest competitor), while for men institutional commitment was nearly twice as important as routinization. The finding that institutional commitment was the primary variable influencing dropout for both sexes was consistent with the previous studies of Spady (1970), and Tinto (1975).

Total causal effects generated by path analysis were used to assess the importance of the independent variables in influencing the dependent variable. For women, institutional commitment (total effect = -.47) was the most important indicator of dropout. The second most important was performance (total effect = -.14), and the third was membership in campus organizations (total effect = -.11). This supports the hypothesis of Spady (1970) and Tinto (1975), who believed that structural integration is one of the two most important factors influencing dropout. For men, institutional commitment was also the most important variable related to dropout. While the zero order correlation (-.30) was much smaller for women (r = -.46), this variable was nearly twice as important in total effects as the second most important variable - university GPA (total effects = -.15). The third most important variable in influencing dropout for men (total effects = .14) was satisfaction.

The determinants in Bean's model accounted for 21 percent of the variance in dropout for females, and 12 percent for males. While institutional commitment was the
most important variable in explaining dropouts for students of both sexes it appears that men left the university even though they were satisfied, whereas women who were satisfied were more committed to the institution and were less likely to leave. Bean recommends that future attrition studies using background variables, organizational variables, and intervening variables should also include environmental variables. His later work (Bean 1982, 1983), incorporates environmental variables.

In his Model of Student Attrition (Figure 3), Bean (1982) views the occurrence of student departure as reflecting the impact that the organization has on the socialization and satisfaction of students. Bean's (1983) study adapts a model, developed by Price and Mueller (1981) of workplace turnover to college student attrition. The industrial model contained variables which reflected the student's interaction with the institution. The variables were expected to influence satisfaction, which in turn was expected to decrease intent to leave.

**Figure 3: Bean's Model (1982)**

- **Objective Interaction with Organization**
- **Background**
- **Environment**
- **Outcomes & Attitudes**
- **Intent**
- **Dropout**

= direction of causal linkages

= causal linkages presumed most important
Bean looked at the impact of organizational attributes (e.g. routinization, participation, and communication) and rewards (e.g., grades, practical value and development) on retention, through their impact on student satisfaction. He argues that, as in work organizations, institutional rates of retention - that is, student turnover - would be enhanced by institutional policies that increase student participation and increase the rewards obtained for "work" in the institution. He posits, but does not demonstrate empirically, that organizational attributes such as participation in organizational decision making, fairness in the administration of policies and rules, and communication indirectly affect students' withdrawal decisions.

Bean (1982) identified four classes of variables - background variables, organizational variables, environmental variables, and attitudinal/outcome variables - that have direct or indirect effects on intent to leave, which is the immediate precursor to dropping out. Intent to leave indicates the students' intention of leaving their present institution before graduating. This is measured at the end of the winter semester by asking students if they intend to return to that institution for the next semester or year. Since the duration of attrition studies is typically one year, intent to leave is an accurate predictor of attrition because it is predicting behaviour over a short period of time. The assumption here being, if one can identify students who intend to leave, one can query them as to why. It must however be remembered that students who intend to transfer also intend to leave the institution, and the potential transfer cannot be distinguished from students who intend to leave for other reasons. Bean argues that student attrition is analogous to turnover in work organizations and stresses the importance of behavioral intentions (to stay or leave) as predictors of persistence behavior.

Bean's Student Attrition Model presumes that behavioral intentions are shaped by a process whereby beliefs shape attitudes, and attitudes in turn shape behavioral intents, as suggested by Fishbein and Ajzen (1975). Beliefs are presumed to be affected by the student's experiences with different institutional components such as institutional quality,
courses, and friends. The model provides a structure for assessing the differential effects of several types of variables on the dropout decision. Bean was able to account for nearly 50 percent of the variance in dropout in a single institution and attributed the success of the model to the inclusion of attitudinal variables and intent to leave (which was measured at the end of the winter semester by asking students if they intended to return to that institution for the next year, and ascertaining dropout through registration information provided by the university registrar in the fall semester). As for predicting who will drop out, the "intent to leave" variable from the model would be useful in identifying potential dropouts before they leave the institution. While these studies refer to undergraduates, it is presumed for the sake of this study that similar results would occur when applied to graduate or postgraduate students.

Similarities And Differences Of The Tinto and Bean Models

Because Tinto (1975) drew extensively on the earlier work of Spady (1970), and both models are based on interactional theories of student departure, it was decided to use Tinto's model for comparison with Bean's (1982) student attrition model, which draws on organizational theories of student departure. Tinto's Student Integration Model and Bean's Model of Attrition both provide a comprehensive theoretical framework on college departure decisions. Also, these two theories have received considerable attention in the literature (Cabrera, Stampen and Hansen, 1990; Mallette and Cabrera 1991; Metzner and Bean 1987; Munro 1981; Nora, Attinasi and Matonak, 1990; Pascarella and Chapman 1983; Pascarella and Terenzini 1979, 1980, 1983).

Tinto's Student Integration Model, based on interactional theories of student departure, and Bean's Student Attrition Model, which draws on organizational theories of student departure, have commonalities and differences. Both models regard persistence as the result of a complex set of interactions over time. Both argue that precollege characteristics will affect how well students subsequently adjust to their institution.
Examination of the two theories reveals that what Tinto refers to as Institutional Commitment, Bean identifies as Institutional Fit. In other words both models argue that persistence is affected by the successful match between the student and the institution.

Tinto’s Student Integration Model regards academic performance as an indicator of academic integration, while Bean’s Student Attrition Model treats it as an outcome resulting from academic integration (Bean 1986, p 50). Research on the Student Integration Model suggests that academic integration, social integration, institutional commitment, and, to some extent, goal commitment, exert the highest effects on retention (Pascarella and Chapman 1983; Pascarella and Terenzini 1980; and Terenzini, Lorang, and Pascarella, 1981). However there have been conflicting results. Munro (1981) found that educational aspirations had a greater effect on goal commitment than did academic integration. Academic integration had a much stronger effect on institutional commitment than did social integration. Her findings supported Tinto’s notion that goal commitment had the strongest effect on persistence in higher education but did not find that final institutional commitment affected persistence. The influence of gender on persistence was found by Munro (1981) and Pascarella and Terenzini (1980) to be mainly indirect, while Pascarella and Chapman found that level of goal commitment had a significantly stronger positive association with persistence for women than for men.

One conceptual difficulty with Tinto’s (1975) Model of Student Integration is the double placement of goal and institutional commitments in the model. The first placement seems to be qualitatively different from the second in that the first appears to be an educational plan, the second a measure of commitment to carrying out that plan. Commitment would come from the student’s interaction with the academic system. Therefore one would expect the second set of goal and institutional commitments to be the better predictor of dropout decisions.
Drawbacks of the Tinto model

One drawback of Tinto's (1975) model is that it does not distinguish between traditional-age (18-22 year olds) and non-traditional age (older and working) student departure. Tinto (1982), acknowledges this and recommends the development of group-specific models of student disengagement that can explain to what degree and in what fashion the process of dropping out differs among persons of different gender, race, age, and social status backgrounds. Recognizing the importance Tinto assigns to academic and social integration in explaining retention in traditional-age students, one wonders if these same concepts would be as useful in exploring retention of older students in post graduate programs.

The difference between traditional-age and non traditional-age students is not a simple dichotomous classification. The two groups may be differentiated on the basis of age, residence, full or part time attendance, and marital status. One’s personal experience would suggest that most older students, unlike traditional-age students, limit their participation in the social life of the institution. Many do not reside on campus, most work full, or at least part-time, and many are married with children. Thus their participation in family and work communities are more extended than is the case with traditional-age students. Generally, these communities are outside the university, so on-campus social integration would probably be less of a consideration for older students than for traditional-age undergraduates. Finally, the concept of intellectual integration, suggested by Tinto, may not fully apply to older students for whom enhanced career potential may be stronger motivation than intellectual growth and self-development.

Bean’s Student Attrition Model on the other hand emphasizes the role played by factors external to the institution (environmental factors) in affecting attitudes and decisions. These environmental variables are structural opposites of the organizational variables - that is, they are variables over which the organization has little or no control. They include such things as: students’ financial status, family responsibilities, and work role,
which may directly influence dropout (Bean 1982). Whereas most research is concentrated on what could push a student out of an institution, these variables indicate ways in which the student may be pulled from the institution.

Drawbacks of the Bean Model

Bean's (1982,1983) Model of Student Attrition, which hypothesizes the highest correlation between "intent to leave" and actual attrition, applies specifically to short-term (consecutive year) dropout studies and for that reason may be somewhat limiting. Another drawback of Bean's (1983) organizational theory is that it does not enable us to understand how organizational attributes, including student-faculty interaction, eventually have an impact on student decisions to stay or leave. This theory does not attempt to explain why different types of students take on different leaving behaviors within an organization. In this regard the theory implicitly assumes that all leavings arise from the same source. It is therefore not well suited to the task of explaining variations in the patterns of student departure which arise among students within an institution.

Enrollment in a post-graduate program is the culmination of a series of decisions made by older students in their extended commitment to the educational process. One would assume that persistence at the undergraduate and graduate levels would indicate significant commitment to the educational process and would positively affect subsequent enrollment in the doctoral program. In terms of Tinto's model then, the greater the social and academic involvement of students in the undergraduate and graduate institutions the more likely they are to extend their education by enrolling in a doctoral program.

Tinto (1986) proposed a refined student departure model which included both individual (psychological) and institutional (sociological) characteristics. He addressed the fact that his earlier (1975) model was not truly longitudinal. His previous model did not provide substantial details of the manner in which the departure process can vary over time. In effect, it assumed that the process of leaving was largely uniform over time. Tinto
suggested that work done in the field of social anthropology and studies of the temporal process of establishing membership in traditional societies may be useful in assessing the longitudinal nature of student departure. To illustrate this he draws on Dutch anthropologist Arnold Van Gennep’s (1960) study of rites of passage in tribal societies.

**Rites Of Passage**

In tribal societies, the passage to adulthood is marked by three distinct phases -- (i) separation from past associations, (ii) transitional interactions with members of the new group, and (iii) incorporation into the new group as a participant member. Tinto (1986) suggests an analogy between the tribal passage to adulthood and the longitudinal process of student persistence in college and, by extension, the time dependent process of student departure from institutions of higher education. He states that,

> Future theory must also lead to or be derived from the perceptions that the actors themselves have of the situation. It must be based on the meanings that students place on their experience. ...future theory must be grounded in the everyday reality of the lives of students and must make sense of their experiences (p 379).

He says the mass of quantitative evidence on reasons for student departure has not provided an adequate understanding of how students perceive their own situation,

> It is for this reason that an agenda for future research must also include more careful qualitative studies of student departure. Though there is much merit in present efforts to provide quantitative tests of existing theory, we should not overlook the important contributions that grounded qualitative research can make to the development of theory (p 379).

How students perceive their own departure at varying points during their college career is not well understood. Nor is it known whether those perceptions are socially and culturally bound. Whether older students understand the temporal quality of persistence in the same way as do traditional age students is not known. While differences in their perceptions and understanding may exist, it is not the intention of this study to investigate the perceptions of traditional age college students and those of older graduate students. Further qualitative research is required to provide a more complete understanding of these questions.
Tinto (1988) recommends that... additional research alone is not enough if that research repeats the highly quantitative patterns of past work. We also need research... which employs ethnographic procedures to explore how students understand the temporal quality of their college careers (p 450). The study proposed herein adopts a qualitative approach. An attempt is made to design a model and assess its suitability for explaining attrition among doctoral students, particularly those who have completed all the requirements for the degree except the dissertation. As the doctoral degree is a terminal degree, those who drop out at the All But Dissertation (ABD) stage, or who fail to complete the program within the time allowed become Terminal ABDs (TABDs).

Section Summary
This section has detailed the results of the literature search and subsequent delimiting of the scope of the review. The theory based studies of Spady (1970), Tinto (1975), and Bean (1982) were reviewed to demonstrate the evolutionary nature of the three models. The relationships between them demonstrates how each built on the other. Because Tinto (1975) drew extensively on the earlier work of Spady (1970), and both models are based on interactional theories of student departure, it was decided to use Tinto's model for comparison with Bean's (1982) student attrition model, which draws on organizational theories of student departure. The similarities and differences of the two models were explored, as were the drawbacks of each.

Because the literature reviewed to this stage concentrated on traditional-age students in undergraduate programs it was considered necessary to explore the literature further for sub-categories which might provide greater insight into variables not often considered in these models of dropout from higher education. In the following section the literature review is continued, and a conceptual framework for the study developed.
CONCEPTUAL FRAMEWORK

Research pertaining to the intention of adults to resume studies after a period of stopping out; the effects of academic and decisional procrastination; as well as ability to pay, are assessed for their applicability to older adults in post-graduate programs. Finally, the possibility is explored of combining some of the constructs of the models of dropout from higher education with the above mentioned variables by melding the two theories of Tinto (1975) and Bean (1982).

Intention to Resume Studies

As "stop out" behavior, (whereby a student leaves college for employment, family rearing or other activities, prior to earning a degree, and returns later), becomes recognized as an attendance pattern (Pascarella and Chapman, 1983; Tinto, 1986), understanding the motives underlying the student's intent to return to college becomes important.

Smart and Pascarella (1987) tested a causal model of the factors associated with the intention of adults to resume their college education. The criterion measure was the intention of adults to re-enter higher education\(^1\). Research has demonstrated that students' subsequent educational and occupational attainments can best be predicted or estimated by reviewing their initial educational and occupational intentions/aspirations (Ethington and Smart 1986). Bean (1982,1983) has shown that "intention to leave" is the single best predictor of subsequent dropout behavior.

Data for Smart and Pascarella's (1987) study were obtained from the 1971 and 1980 Cooperative Institutional Research Program (CIRP) surveys. The overall sample represented 10,326 students attending 487 colleges and universities. Respondents

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\(^1\)This item was completed by those who had dropped out of college before earning a degree. The specific item was: "What are the chances that you will return to college within the next two years?" There were four response categories: 1 "no chance," 2 "not very good," 3 "fairly good," and 4 "very good."
completed an initial survey which collected student background information, aspirations, and expectations of college upon entering in the fall of 1971. These same students completed a follow-up instrument during the winter of 1980, which collected information about their college and job-related experiences since 1971. Respondents were selected if they indicated on the 1980 follow-up survey that they had dropped out before earning a degree or vocational certificate. This yielded a sample of 1,171 participants (611 males and 560 females).

Smart and Pascarella (1987) developed a causal model containing the following sets of variables: 1) initial undergraduate experience, 2) characteristics of their employing organization, 3) early career experiences and 4) current self concept, and (5) intention to return to college. They postulated that intention to resume college education would be dependent on all the variables in the model. Ordinary least squares regression was used to estimate the coefficients of the structural equations defining the model. Each endogenous variable (early career experiences, self-concept, and intention to return) was regressed on the exogenous variables (initial undergraduate experiences, and employing organization characteristics), which produced regression coefficients representing the direct effects of the causal factors on the dependent measures. The statistical significance of the indirect effects were tested using GEMINI, a FORTRAN program. The causal model did account for a significant portion of the variance in the intention of adults to re-enter higher education. The variables in the model were somewhat more powerful for men ($R^2 = 0.26$) than women ($R^2 = 0.19$). This type of "stopout" behavior, whereby the student intends to return to complete the degree, as opposed to dropping out or discontinuing, was reported earlier by Pascarella and Chapman (1983), and Tinto (1986), in their work on undergraduates, but is not well understood at the graduate and post-graduate level.

Some students will enter, or return to, the workplace after completing the coursework and comprehensive exams for the doctorate with intentions to complete the dissertation on a part-time basis. The environmental factors affecting these students
(employment pressures, time commitments, family responsibilities, financial considerations) may be different from those of students who are able to concentrate full time on their studies until they complete. In order to gain insight into the experiences, expectations and plans of these students, the following questions require answers. Do these students have a plan or a time-line proposal for how they are going to complete their dissertation? Will they be able to implement their proposed plan? What barriers might they experience in implementing their plan? (e.g. time management, motivation, personal problems, financial problems, pressing commitments to family.) Do these students experience problems in sustaining interest from one session to the next of work on the dissertation? What is the probability they will complete their dissertation before time runs out?

Smart and Pascarella (1987) state men who are likely to return to college [to resume or complete their education] tend to have jobs with higher status, lower income, and to derive less intrinsic satisfaction (for example, challenge of the job, variety of activities) from their jobs (p 318), than those who are unlikely to return to college. They state further that ... a major reason for their return to campus is to acquire the training and preparation that will enable them to pursue careers that provide higher levels of reward and satisfaction (p 319). This raises further questions. What if they are currently employed in jobs satisfactory to them in most respects, where completion of the dissertation is not seen as necessary either for advancement or for successful continuation in present employment? If they have no intention (or see no possibility) of pursuing an academic, research or other position where the completed doctorate is an essential credential, may they view the cost/benefit of completing as not worth the extra stress and further time commitment? Or, do they have difficulty in making decisions which might cause them to procrastinate or put off any action while the time runs out?
Procrastination: What part does it play?

Procrastinators put things off. It would be a rare individual who would not admit to having postponed, or put something off until later, but does that mean they are procrastinating? There are probably as many definitions of procrastination as there are suggestions of why people engage in the behavior. Lay (1986) defines procrastination as the tendency to postpone that which is necessary to reach some goal (p 475). This definition however, understates the complexity of the concept. Silver and Sabini (1982) investigated a number of situations in which people put things off and tried to determine whether or not the actions of these people constituted procastinatory behavior. They concluded that behavior can only be procrastinatory if it is irrational... the irrationality of procrastination is rooted in rationality: it depends on a person's knowing what to do and then [deliberately] doing something else (p 40). Some ways of procrastinating depend on irrational uses of time. This can include putting things off in the belief that, drawing from one's past experience, one can accurately judge the amount of time required to complete a task. They contend that if procrastinators consistently underestimate the time required to complete a task, they are being unrealistic and irrational.

Reporting on their clinical experience as staff psychologists at the counselling centre of the University of California at Berkeley, Burka and Yuen (1982) state that procrastination is not just a bad habit but a way of expressing internal conflict and protecting a vulnerable sense of self-esteem (p 32). They contend that procrastinators view their self-worth as based solely on task ability and, by delaying task completion, the procrastinator's perceived (or actual) inability at the task is never tested. Burka and Yuen report that the work of habitual postponers reflects not their true ability but brinksmanship. It demonstrates how well they can pull things together under pressure (p 34), and while procrastinators may say they're lazy, more often, they fear doing poorly, or doing too well. Or they are rebelling - indirectly - against authority (p 36). Burka and Yuen developed a treatment program, a time-limited group counselling session which runs for eight to nine weeks during one academic term. The
program integrates strategies from the behavioral, cognitive, and psychodynamic schools of psychological thought. Over three years of the group counselling program, ninety-one percent (of 150 clients) reported on evaluations that the group was "very helpful" or "extremely helpful" in accomplishing their goals. Burka and Yuen attribute the success of their program in part to the fact that they perceive that individual procrastinators can see in others what they cannot see in themselves. Becoming aware of others' unrealistic expectations and perfectionist standards helps them see these same patterns in their own behavior (p 44).

Academic Procrastination

Solomon and Rothblum (1984) investigated the frequency of college student procrastination on academic tasks and the reasons for such behavior. Their subjects were university students enrolled in an introductory psychology course. The sample included 101 males and 222 females. Using self-report measures and self-paced quizzes they report that frequency of procrastination for a variety of academic tasks reveal that 46.0% of subjects reported that they nearly always or always procrastinate on writing a term paper, 27.6% procrastinate on studying for exams, and 30.1% procrastinate on reading weekly assignments (p 505). A factor analysis of variance to examine possible sex differences in procrastination found that there were no significant sex differences for any area of academic procrastination nor for total self-reported procrastination (p 506).

A factor analysis of the reasons for procrastination indicated that the factors Fear of Failure and Aversiveness of the Task accounted for most of the variance. The first factor, which accounted for 49.9% of the variance, reflected fear of failure. This factor reflects items related to anxiety about meeting others' expectations (evaluation anxiety), concern about meeting one's own standards (perfectionism), and lack of self-confidence. The second factor accounted for 18.0% of the variance and related to aversiveness of the task. Items in this factor include task unpleasantness and lack of energy. Analysis of variance of sex differences on the two primary reasons for procrastination yielded a significant
difference for the Fear of Failure factor, $F(1,273) = 6.96, p < .001$. Females were significantly more likely to endorse items that reflected this factor (mean score 10.63) than were males (mean score 8.52). The researchers found no significant sex difference on endorsement of items that reflected aversiveness of the task.

These results indicate that procrastination is not solely a deficit in study habits or time management, but involves a complex interaction of behavioral, cognitive and affective components. Some of the reported reasons for procrastination were evaluation anxiety (anxiety about meeting others' expectations), concerns about meeting one's own standards (perfectionism), and low self-confidence. In other words, students may procrastinate because they cannot meet their own or others' expectations, or because of concerns about poor performance.

One of the common complaints of doctoral students is the feeling of isolation they experience. One wonders if this feeling of isolation is intrinsic to the pursuit of doctoral studies, or if it is self imposed, i.e. brought about by procrastination which may manifest itself in evaluation anxiety or perfectionistic concerns.

Solomon and Rothblum (p 503), quote (Semb, Glick, and Spencer 1979), who contend that the tendency for students to procrastinate increases the longer they are in college: freshmen procrastinate the least; seniors, the most. If this is indeed the case one would expect procrastination behavior to be evident, if not further increased in students at the doctoral level.

Situational Correlates Of Procrastinatory Behavior

Lay (1986) conducted three studies designed to examine procrastinatory behavior. The first study used a sample of 110 students from an introductory psychology class. Subjects were asked to complete a procrastination scale and mail it back to the researcher's home address, in a stamped addressed envelope, within six days. Scores on the scale were related to a number of behavioral measures, primarily the number of days taken to return
the completed inventory by mail and the respondent’s undergraduate grade-point average. This study sought to examine the relationship between procrastination and a measure of actual achievement. There were 81 returns (74%) within a twenty day period. Of these 76 (15 male and 61 female) were complete and usable. From the twenty day period over which the questionnaires were received high and low levels of procrastination were determined. The median split was 9 days and below (low procrastinators) and 10 days and above (high procrastinators). They determined that based on Pearson Product-moment correlations, procrastination scores were not related to grade-point average ($r = -.10$). In this context, it would appear that actual academic achievement is unrelated to procrastination. The second part of this study involved the student’s performance on the final exam in the introductory psychology course. The exam consisted of 75 multiple-choice items over a two hour time limit. In addition to grade on the exam, the duration of time in minutes to complete the test was recorded. The exam was viewed as a highly contained, time limited structure. Whether procrastinatory tendencies manifest themselves in such a situation was the object of this assessment. The results showed that procrastination scores were not related to the mark obtained on the final exam ($r = .01$), nor did procrastinators work any more or less slowly on the exam ($r = -.05$).

In the second study the same procrastination scale from the previous study was administered to 161 students enrolled in four independent sections of an Introductory Psychology course. In a subsequent session these students were asked to complete a version of Little’s Personal Projects Analysis and return it by mail. Little (1983), assessed the interrelated sequences of action intended to achieve some personal goal. In his method respondents were asked to provide ratings on the importance of a project, the amount of time spent on a project, the adequacy of the time spent and the amount of stress associated with a project. In Lay’s (1986) study participants were asked to take the Personal Projects Analysis with them after class and return the completed form by mail. Of the original group of 161 students 119 subjects took the Projects task with them. Attrition was accounted for
by absenteeism (36 subjects) and students electing not to participate further (6 subjects). Subjects were paid $3.00 in advance and asked to sign a receipt, thereby indicating their intent to complete and return the Projects Analysis questionnaire. If intent is a predictor of subsequent behavior, as suggested earlier by Fishbein and Ajzen (1975), one would expect a high return rate. The response rate of 81.5% (97 responses) is high. Twenty-two subjects took the questionnaire, and the $3.00, and were never heard from again (p 480). This group consisted of 12 high procrastinators and 10 low scorers. This suggests that high procrastinators are not any more or less responsible than low procrastinators. Responses were evaluated for accuracy of completion and a total of 94 subjects participated in the study. The relationship between various aspects of the Project Analysis and scores on the procrastination scale were assessed. High procrastinators (N = 44); compared to low procrastinators (N = 45), indicated that they spent less time and less adequate time working on their projects (p < .01). High and low procrastinators did not differ on any other dimension.

The third study examined the relationship between procrastination scale scores and accuracy in remembering to mail back an envelope. Lay investigated to what extent procrastinatory behavior might be the result of disorganized thinking or forgetting, which he labels "cognitive disorganization". In this novel approach, passengers waiting to board planes in an international airport were approached to take part in a study. The subjects were informed that the study was being carried out to test the efficiency of the Federal postal service. Participants were asked to complete a brief questionnaire (which was designed to assess personality characteristics), and were given a stamped, addressed envelope which they were asked to mail back to the researchers from the point of their destination 3 days after their arrival. A total of 86 subjects (57 males and 29 females) completed the questionnaire and accepted the envelope. Of the 68 envelopes returned, 62 were useable. The results indicate that subjects more predisposed to procrastinatory behavior erred to a greater extent in returning the envelope, F(2, 60) = 3.4, p < .05. There
were no significant main effects or interaction when subjects were distinguished in terms of their cognitive failure (forgetting) scores, although the interaction did approach significance, F(2, 60) = 2.8, p < .07. What is not made clear by these results is whether remembering to do something on time is more of a reflection of procrastinatory tendencies than of a predisposition to forget. What is evident is that procrastinators fare less well in remembering to do something and in doing it, than do non-procrastinators. These results support the earlier work of Silver and Sabini (1982) that procrastinators do not draw well from past experience in accurately estimating how long it will take them to complete a task. This includes not only those things they ought to be doing, but also the secondary tasks they undertake while avoiding what they ought to be doing. In these situations, factors like work, family, or friends may present a more prominent profile and seem to be more pressing.

When procrastinators are under pressure, they tend to underestimate the time needed to complete tasks. This pressure can take the form of time to some deadline, or enticing alternatives to working on the task at hand. Lay (1986) states... *part of the irrationality of the procrastinator (as opposed to the irrationality of the act) may be in their [sic] failure to maintain priorities over a series of ongoing, and upcoming, tasks and goals* (p 493).

**Decisional Procrastination**

In a study on decisional procrastination (the postponement of major decisions) Effert and Ferrari (1989), administered four self-report scales (designed to measure decisional procrastination, cognitive failures, self-esteem and task activity) to 27 male and 84 female college students enrolled in a psychology class. Their results showed no significant sex differences on any of the self-reported inventories. They found that decisional procrastination related significantly to cognitive failures (forgetfulness), low self-esteem, speed and impatience at tasks, and low competitiveness at tasks. Their results suggest decisional procrastinators may fail to cognitively assess all task possibilities, then, as the task deadline approaches, they "speed up". Poor performance usually results. These
procrastinators may experience low self-esteem at the outcome, only to repeat the cycle in
the next decision-making situation.

When decisional procrastinators are unable or unwilling to weigh alternatives in
stressful situations they might claim a tendency toward forgetfulness and absent mindedness.
Being indecisive may mask low self-esteem. Indecisive persons may protect their vulnerable
self-esteem by creating situations in which they never have to put their abilities to the test.
For example, as the decision deadline approaches they have to work faster in order to meet
the deadline. A subsequent failure or incomplete project could then be attributed to
insufficient time -- a factor other than the individual’s ability. Recognizing this researchers
began to look for ways to measure procrastination.

Tuckman’s Procrastination Scale

Tuckman (1991) developed a self-report measure of procrastination tendencies and
investigated its relationship to a behavioral measure of procrastination, and to a self-report
measure of self-efficacy. A Procrastination Scale was developed which contained 72 written
statements covering three topics: (a) a general self-description of the tendency to delay or
put off doing things; (b) a tendency to experience difficulty performing unpleasant tasks,
and to work to avoid the unpleasantness and (c) a tendency to blame others for one’s own
plight. The 72-item scale was pilot tested with 50 subjects who were preparing to become
teachers. The data were factor analyzed using the principal component solution and
orthogonal rotation to produce a shorter version of the scale with a coherent structure and
an adequate reliability. In this analysis 10 factors were extracted before commonalities
exceeded 1.00, but only two factors by themselves each accounted for 10% or more of the
common variance. The first factor, accounting for 25% of the variance, included the
description of oneself as a procrastinator or delayer, along with the tendency to avoid
unpleasant tasks. The second factor, accounting for 11% of the variance, included the
externalization of blame. Using a factor loading of .45 as a minimum requirement for
inclusion, Tuckman created a 35-item scale from the original 72 with three-quarters of the items representing the first factor and one-quarter representing the second factor.

The 35-item scale was re-administered to a new sample of 183 subjects drawn from the same population as the original sample of 50 subjects. The same factor analytic technique was employed as was used on the original data (50 responses) and it was determined that the 35-item version of the Procrastination Scale yielded a much better one-factor solution than a two-factor solution since only one factor had an eigenvalue much above 1.00. (The first factor had an eigenvalue of 5.32 and accounted for almost 30 percent of the variance). Of the 35 items, 16 had loadings of .40 or higher on this factor. The 35-item Procrastination Scale had an alpha reliability coefficient of .90. This shortened version of the Procrastination Scale was recommended for use as a means of detecting students who may tend to procrastinate in the completion of college requirements. Within the limits of the initial validity study this Procrastination Scale appears to provide a valid and reliable estimate of the tendency to waste time, delay, and intentionally put off something that should be done. As such it has the potential to be a predictor and detector of the inclination to procrastinate and may be a useful component in the study of the ABD phenomenon.

Perfectionism And Procrastination

In a related study Flett, Blankstein, Hewitt and Koledin (1992) examined the relations between individual differences in perfectionism and procrastinatory behavior in college students. A sample of 131 undergraduate students (75 females, 56 males) enrolled in an introductory psychology course completed measures of self-oriented, other-oriented, and socially prescribed perfectionism as well as measures of academic procrastination and general procrastination. Multivariate analysis of variance and subsequent univariate analyses were conducted separately on the perfectionism and procrastination measures and demonstrated that the multivariate effect of gender was not significant for either perfectionism measures or procrastination measures. However, correlational analysis
revealed that it was the socially prescribed perfectionism dimension that was the most closely correlated with both generalized procrastination and academic procrastination, especially among males. The results suggest that procrastination stems, in part, from anticipation of social disapproval from individuals with perfectionistic standards for others. While procrastination and perfectionism are factors that will affect persistence/attrition there are also environmental factors, such as difficulty in financing studies and support from significant others that must be considered.

Environmental Factors

There are external factors over which an institution has little or no control. These environmental factors include the students' difficulty in financing their studies and family responsibilities, and support for continuation of studies. Cabrera, Stampen and Hansen (1990) studied the effects of ability to pay on college persistence when academic ability, motivational, and institutional variables included in the student integration model were taken into account. They developed a model containing all the variables of Tinto's student integration model and then introduced institutional prestige and significant others as critical independent variables. They incorporated ability to pay as a variable that directly affects a student's decision to persist in college and that also has an indirect effect by moderating the effects of commitments, academic performance, and institutional variables on persistence decisions. They hypothesized that ability to pay would moderate the effect of academic and social integration.

Ability To Pay

Cabrera, Stampen, and Hansen (1990) drew their sample from the National Longitudinal High School and Beyond (HS&B) 1980 Senior Cohort. The HS&B data base follows twelve thousand 1980 high school seniors. The sample is a matched one, and information is collected every two years during spring. The subjects consisted of 1,375
college students attending public four-year institutions in the spring of 1982 when the first HS&B follow up took place. The students chosen were at the end of their second academic year. The dependent variable was institutional persistence measured by a categorical variable. The independent variables were: goal commitment, academic and social integration, ability to pay, institutional prestige, significant others' influence, and skills and abilities. Analysis was carried out using logistic regression analysis. To test their hypotheses they employed a three-step strategy: (1) they fitted to the data a model containing only the indicators of ability to pay; (2) they then tested the presumed interaction effects among non economic variables and selected the model that could be used as a baseline for examining the hypothesized moderating effects of ability to pay, and (3) they tested the hypothesized interaction effects of ability to pay and social interaction; ability to pay and academic performance; and, ability to pay and goal commitment. The model produced in the second step was employed as a baseline to help select the final model (see Cabrera, Stampen, and Hansen p. 320). Two indicators were used to measure the construct, ability to pay. The first was satisfaction with the cost of attendance as reported by the student in 1982. The second was socio-economic status.

The results did not support the hypothesis that academic integration interacts with goal commitment in shaping persistence decisions. By examining the parameters in successive models they found that only the interaction between satisfaction with cost of attendance and goal commitment was statistically significant. When the data were incorporated in a new model, the improvement of fit was significant at .02. This model accounted for 23 percent of the variance in persistence. This result compares well with the $R^2$ increment (a statistic that expresses the additional variance in the criterion variable that can be explained by adding a new predictor variable to the multiple regression analysis) reported by Munro (1981), $R^2 = .14$ and .15; and Pascarella and Chapman (1983), $R^2 = .11$ to .15. The results of Cabrera, Stampen, and Hansen (1990) supported the hypothesized effects of ability to pay on persistence. This is not surprising in view of previous research.
The finding that ability to pay moderates the effect of educational aspirations however, demonstrates how external factors (i.e., finances) can indirectly influence college persistence. It also raises questions for consideration in the current study. Can the moderating effect of ability to pay be further moderated by financial assistance? If students receive aid packages that assist with the cost of attendance will this increase goal commitment and thereby persistence to the completion of the doctoral degree?

This is the first report uncovered in the literature which attempts to examine empirically the potential moderating effects of finances on goal and institutional commitments. It also calls into question the assumption that a student’s commitment to finish college can overcome the lack of financial resources, and contradicts Tinto’s (1986) statement that there is little evidence to support the contention that financial forces are paramount to individual retention decisions (p 363). Qualitative study using in-depth interviews may provide an opportunity to explore this further.

Because of the similarities of certain constructs in the Tinto (1975) and Bean (1982) models, and the fact that empirical research supports both theoretical positions, a merging, or combining of the major propositions embedded into these two theories, might better explain the ABD phenomenon. A subsequent search of the literature located two such studies.

Melding of Theories

The melding of the two theories was first attempted by Braxton and Brier (1989) in a limited way. They used a longitudinal design with freshmen drawn from the University of California at Los Angeles (UCLA), Cooperative Institutional Research Program (CIRP) in the fall of 1983 at a midwestern, urban, commuter university. A response rate of 40.0 percent yielded a sample size of 104. Students initially completed a student information form providing background data and subsequently a follow up instrument which operationalized constructs from Pascarella and Terenzini (1980) and Bean (1982; 1983),
which related to the students' perceptions of their college experience. Statistical tests conducted (t-test and chi-square goodness of fit), suggested that the sample was representative of the larger group (CIRP) on such factors as age, academic aptitude (ACT composite scores), high school percentile rank, gender, and race.

Six different sets of variables or constructs were employed. Five were derived from Tinto's model (1975): student background characteristics; initial commitments; academic and social integration; subsequent commitments; and withdrawal decisions, while the sixth represented organizational attributes identified by Bean (1982). Braxton and Brier (1989) used path analysis to test their causal model defining the background variables as exogenous to the model and the remaining variables as endogenous. To test the model, ten separate structural or regression equations, regressing each of the ten endogenous variables on all exogenous variables and on all causally antecedent endogenous variables were solved. Each of the ten regression analyses generated standardized partial regression coefficients, or beta weights which were used as path coefficients. The path model indicated a direct, but negative, path between initial goal commitment (beta = .212, p < .05), and student participation in institutional decision making. This participation measure was a composite of four items indicating how much say respondents feel they have in making the following decisions: (1) kinds of course assignments, (2) amount of course assignments, (3) making social rules, (4) making academic rules. These items were derived from Bean (1980, 1983) and have an alpha estimate of 0.80. This suggests that the greater the commitment to college graduation, the less the students feel they participate in making decisions. The model shows that organizational attributes positively influence both academic and social integration. Fairness in enforcing policies and rules (beta = .200, p < .05), and participation in decisions (beta = .186, p < .05) have a positive, direct effect on academic integration. Communication (beta = .211, p < .05) directly and positively influences social integration, though social integration has little or no influence on subsequent institutional commitment. In contrast, academic integration (beta = .333, p < .05), exerts a positive direct effect on
institutional commitment (beta = .303, p < .05) which directly and positively affects student persistence. The results further demonstrated that academic integration (.099, p < .05) was the only variable with a statistically significant indirect effect on student persistence. These findings provided mixed support for melding organizational and interactional perspectives on student attrition. The study had limitations of small sample size (N = 104), a low response rate (40 percent) and focused only on voluntary persistence/withdrawal from one term to another and did not consider stopouts who might re-enroll at a later date.

In a more rigorously controlled study Cabrera, Casteneda, Nora, and Hengstler (1992) used an improved methodology in testing for both the predictive validity and the convergence between the two theories. They found that an examination of the factor loadings and unique variances in the measurement for both the Bean (1982) and Tinto (1975) models made it possible to: (1) control for nuisance variance and (2) determine the extent to which the observed variables actually constituted reliable and valid indicators of the constructs in a manner consistent with each theory.

An improvement on the use of path analysis to investigate causal relationships among variables, as was done by Braxton and Brier (1989), was the choice of Linear Structural Equation Models (LISREL 7) computer software for data analysis. As an analytical technique LISREL is more versatile than path analysis. While path analysis allows researchers to speculate about the importance of identified significant paths to the fit of the specified model to the data, LISREL allows the investigator to easily test the significance of specific paths to the model and the data. For example, a model can be run and the resulting chi-square noted. A change can be made to the model (such as adding a path) and the model run again. The chi-square of the new model is then compared with the chi-square of the old model for one degree of freedom, which was lost with the addition of a

\[ \chi^2 \]

Although chi-square is a nonparametric statistical measure, it is useful in this instance as a test of discrete variables. The number of students who drop out is a discrete, rather than a continuous, variable. Dropping out is also a discrete variable because it either occurs or does not occur.
path to the model. If the chi-square value is significant the addition of the path is interpreted as significantly improving the fit of the model to the data.

The sample was drawn from the fall 1988 entering freshman class at a large southwestern urban institution and represented traditional students (full-time freshmen who were United States citizens, under twenty-four years of age, and not married). The number of students meeting these criteria was 2,453. Data were collected at several points in time and in April 1989, subjects were mailed a questionnaire containing 79 items to measure the following constructs: (1) Intent to persist (defined as a student’s intent to re-enroll in the fall of 1989, and measured by consulting the institutional transcripts to determine the academic status of students at the beginning of the fall 1989 semester), (2) Family Approval of institution, (3) Institutional Fit, (4) Courses taken, (5) Encouragement of Friends, (6) Opportunity to Transfer, (7) Academic Integration, (8) Social Integration, (9) Institutional Commitment, and (10) Goal Commitment. The initial, and a follow-up survey yielded 466 usable surveys.

Their results demonstrate that, from a theoretical perspective, a more comprehensive understanding of the persistence process can be achieved when the two major theories of Tinto (1975) and Bean (1982) are combined. The structural coefficients for Bean’s student attrition model accounted for 44.0 percent of the variance observed in persistence and for 60.3 percent of the variance observed in intent to persist (the students stated intention at the end of the first academic year to re-enroll in the fall of the next year). Finance attitude (satisfaction with financial support) was found to have significant direct effects on both persistence and grade point average. The structural coefficients of Tinto’s student integration model accounted for 38.0 percent of the variance observed in persistence and for 36.0 percent of the variance observed in intent to persist (intent to re-enroll in the next fall semester). An examination of the underlying structural patterns in the quantitative model (see p 156), indicates that most of the effect of both integration constructs on persistence are of an indirect nature and are channeled through intent to
persist, (a student’s intent to re-enroll in the subsequent fall semester). This finding is consistent with organizational behaviour research reported earlier (Fishbein and Ajzen 1975), which indicated that behavioral intents predict actual behaviours. The results further indicate that both theories correctly presume that college persistence is the product of a complex set of interactions among personal and institutional factors.

These findings also support Bean’s (1982) proposition that the role played by factors external to the institution is far more complex and comprehensive than the one portrayed by Tinto’s (1975) model. This is consistent with results by Nora, Attinasi, and Matonak (1990), who studied 253 first-time college freshmen in Houston and found the role of significant others on measures of retention to be statistically significant (beta = .146), and by Cabrera, Stampen and Hansen (1990), in their study on the effect of ability to pay on persistence.

In regards to convergence, Cabrera, Castaneda, Nora and Hengstler (1992) reported that the two theories were complementary to one another on the following constructs: Courses, (a factor in Bean’s attrition model) could be regarded as a measure of Academic Integration, (a construct in Tinto’s integration model). There was also a significant amount of overlap (0.789) between Institutional Commitment (Tinto’s model) and Institutional Fit and Quality (Bean’s model). This indicates that a possibility exists for combining constructs from Bean’s attrition model, and Tinto’s integration model, to provide a different perspective on the process as it applies to older students at the doctoral level.

Summary

In the first part of this chapter the results of the literature search and subsequent delimiting of the scope of the review were detailed. The theory based studies of Spady (1970), Tinto (1975), and Bean (1982) were reviewed to demonstrate how each study built on the one previous. The similarities and differences of the Tinto and Bean models were explored, and the drawbacks of each identified.
In the second part of the chapter the literature review was continued, and a conceptual framework for the study developed. Research pertaining to the intention of adults to resume studies after a period of stopping out; the effects of academic and decisional procrastination; as well as ability to pay, were assessed for their applicability to older adults in post-graduate programs. Finally, because of similarities of certain constructs in the Tinto (1975) and Bean (1982) models, and the fact that empirical research supports both theoretical positions, the possibility was explored of merging the two theories to provide a more comprehensive understanding of the process.

In the next chapter the conceptual framework is used to integrate some of these rarer variables into a conceptual model which is used to guide the current research.
CHAPTER 3
DESIGN OF THE STUDY

In this chapter a conceptual model is developed to provide the theoretical framework for the study. Constructs from the two major theories of Bean (1982), and Tinto (1975), are incorporated into the model in an attempt to investigate the personal and contextual factors affecting doctoral students and the ABD phenomenon. An overview of the methodology chosen for the study is provided and the unit of analysis identified. A pilot case study protocol is developed to guide the data collection process.

Models

One of the useful functions of models is that they limit the number of variables considered in explaining relationships. McLaren (1990), in his study on long-term persistence to degree completion by adults, states ... not many variables are needed (between three and six) to account for the significant variation in degree completion (p 191). Proceeding from a model is more productive than speculation or simply collecting descriptive data and making interpretations.

A conceptual model is proposed to investigate personal and contextual factors which may influence the failure of ABD's to complete a doctoral dissertation. The model draws on previous theoretical models of Tinto (1975), and Bean (1982), for selection of certain constructs. A brief review of these models follows to remind the reader of the major characteristics of each.

In Tinto's (1975) model (Figure 2) background characteristics (family background, individual attributes, and pre-college schooling) interact with each other and are expected to influence both initial goal commitment (commitment to the goal of graduation) and institutional commitment (where the student will study). In the academic system, goal
commitment leads to higher grade performance and intellectual development, which in turn leads to academic integration which leads to even greater goal commitment. Increased goal commitment reduces the likelihood of dropping out. In the social system, institutional commitment is expected to produce peer group and faculty interaction which leads to social integration, which in turn increases institutional commitment. Institutional commitment is also expected to reduce the likelihood of dropping out. The theoretical base is the social and academic integration of the student with the institution, a theory developed by Durkheim (1951).

Bean's (1982) model (Figure 3), identifies four classes of variables (background, organizational, environmental, and attitudinal/outcome) that directly or indirectly affect intent to leave, the immediate precursor to dropout. Bean hypothesizes that intent to leave (measured at the end of the academic year, and indicated by the student's intention to re-enroll for the next fall semester) is the best predictor of dropout; it subsumes most of the effects of the attitudinal, organizational, environmental, and background variables in explaining the variance in dropout. The theoretical base for this model is that student attrition is analogous to turnover in work organizations, and students leave for reasons similar to those that cause employees to leave work organizations. Theories guiding the development of this model were derived from studies of turnover in work organizations by Price and Mueller (1981).

The theories of traditional-age student attrition/persistence consist of certain key constructs. Each contains a set of background variables expected to affect how a student will interact with the institution, each indicates that dropout is a longitudinal process, and each identifies a set of academic variables that are expected to affect attrition decisions. Tinto (1975) relies on socialization or similar social processes (e.g., shared values and friendship support) to explain the attrition process. Bean (1982) suggests there are elements other than socialization (e.g., environment and intent), which should not be ignored. These relationships are maintained in the conceptual model (Figure 4). The key
constructs to be investigated are: background characteristics, environmental effects, organizational characteristics, attitudes and intent, each of which is defined in greater detail below.

**Conceptual Model**

The purpose of proposing this conceptual model is not to attempt a full explanation of the persistence or withdrawal process. Rather, it is to indicate that information about an ABD student which, if it were known, would indicate a student’s probability of dropping out, and to suggest reasons why this occurs.

![Figure 4: Conceptual Model](image)

**Definition Of Conceptual Model Constructs**

The constructs chosen for the conceptual model distinguish between traditional-age i.e. 18-24 year old undergraduates, (which are the group predominantly studied in the literature reviewed), and non-traditional-age or older graduate students. Unlike traditional-age students, most older students limit their participation in the social life of the institution. Many do not reside on campus, most work full, or part-time, and many are

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3 For the questions specific to each of these constructs, developed for the interview schedule, see page 66.
married with children. Thus their participation in family and work communities is usually more extensive than that of traditional-age students. Generally, these communities are outside the university, so on-campus social integration would be less of a consideration for older graduate students than for traditional-age undergraduates.

**Background Characteristics:**

The background characteristics of a student influence the way in which the student interacts within the environment of the institution. These variables can determine the degree to which the student is satisfied with the institution. An increased level of satisfaction will increase the level of institutional commitment. Bean (1980), found institutional commitment to be the most important indicator of dropout for both sexes (p 167). He defined institutional commitment as the degree of loyalty toward membership in an organization (p 160). When background variables are used, previous performance can be considered as a predictor of subsequent performance. The fact that students had successfully completed a master's program with a high enough Grade Point Average (GPA) to permit admission to the doctoral program would indicate academic integration with their institution. Success in reaching the doctoral stage would indicate that they would perform well in their program. The background variables consist of: age (to determine at what stage of life and career the student began doctoral study); length of residency (to investigate any differences in perceptions of the program by those who completed a one year residency as opposed to two years); type of masters degree (arts, education or science); and length of time to complete (previous behavior in a similar situation may be an indicator of expected behavior); plus the reason for enrolling as a doctoral student.
Organizational Characteristics:

Organizational characteristics are indicators of the student's interaction with the institution. They reflect the student's objective experience of the organization and are indicated by the number of close friends, amount of informal contact with the faculty, the amount of help an advisor gives in specified areas, and membership in campus organizations. Organizational variables can be administratively manipulated. They also determine the extent of the student's sharing of group values, friendship support, and the regulation of behavior by institutions (Durkheim, 1951). The following organizational constructs are placed in the conceptual model: formal and informal contact with faculty and other students (deemed important by both Tinto and Bean); selection of research supervisor and committee (to assess the process by which this is done); sources of financial aid (to determine the impact of financial aid on completion); selection and refinement of research topic, and preparation of the dissertation proposal (which may indicate the student's ability to focus on a researchable topic that can be completed within the time allotted); attendance at conferences (to investigate whether this assists or hinders progress on the dissertation); and difficulties encountered in the stages of the doctoral program (to determine if certain stages are considered more problematic than others). These organizational constructs are similar to Spady's (1970) "normative congruence and friendship support"; Tinto's (1975) "peer group interaction"; and Bean's (1982) "close friends, informal and formal contact with faculty, and membership in campus organizations".

Environmental Characteristics:

Environmental characteristics are the structural opposites of the organizational characteristics. That is, they are variables over which the organization has little or no control. These environmental factors comprise the students' work
situation, and family responsibilities (both of which are presumed to impact the time and energy available for study); difficulty in financing studies (because of other financial commitments); and support (by family or significant others) for continuation of studies. These variables should reflect more-or-less objective assessments of the students’ environment outside the educational institution. Considered in the model are family responsibilities, employment status and work role, support of "significant others", impact of studies on home life, and personal finances. This area has not been well studied. (These external characteristics are similar to Bean’s (1982) "family approval of institution, and student’s major, family responsibilities", and "difficulty of financing studies").

Attitudes:

Attitudinal and outcome variables, by and large, represent the psychological results of interacting with an organization. These variables indicate subjective evaluations of education, educational institution, and goals, that is, a subjective interpretation of the objective educational experience. The variables include assessments of the practical value of the doctoral degree and confidence in achieving goals. These variables include some of what Pascarella (1980) considered educational outcomes, what Bean (1980) termed personal variables, and what Fishbein and Ajzen (1975) call attitudes.

A new variable, procrastination, not found in other models, is introduced here. No research was located in the literature related to persistence/attrition in higher education that examined an association between procrastination and dropout. A review of the psychological literature indicates that procrastination is not strictly an attitude, but involves a complex interaction of behavioral, cognitive and affective components. Research reveals that students may procrastinate because they cannot meet their own or others’ expectations, or because of concerns about poor

The attitude variables investigated in the conceptual model compare students’ attitudes toward the utility of the degree, procrastination behavior, and the process of research and write-up. These reflect Bean’s (1982) "practical value of education, institutional quality, one’s own self-development, and loyalty and certainty of choice". It should be noted that institutional commitment, which is important in both Spady (1971) and Tinto (1975), is also indicated in the model by the attitudinal variables.

**Intent:**

Empirical studies (Bean, 1980, 1982, 1983; Pascarella and Terenzini (1980, 1983), determined that students’ intent to leave their college at the end of the current term or academic year was highly predictive of actual attrition (intent to leave was measured at the end of the spring semester by determining whether the student intended to re-enroll at the institution in the subsequent fall semester, and confirming the intention by reviewing each student’s record in September of that year). Intent to leave is hypothesized by Bean (1982), to be the best predictor of dropout and to subsume most of the effects of the attitudinal, organizational, environmental, and background variables in explaining the variance in dropout. No research was found that investigated the association between intent to leave and the attrition of older or part-time graduate students. The areas considered in the conceptual model are: students’ intention to complete the program, and predicted time of completion (to determine if they think they will complete within the time allotted); future career objectives (what they want to do when they complete); and stated intentions (as outlined in the "career letter" submitted as part of the application to the doctoral program in adult education). The primary value of intent as a variable is for predicting attrition, not in the explanation of the factors that cause
attrition. Intent is from Bean (1980, 1982), and is placed where Spady (1971), and Tinto (1975), locate "institutional commitment" as the last endogenous variable before dropout.

A further reason for including intent in the conceptual model is because intentions are hypothesized to intervene between attitudes and behavior (Fishbein and Ajzen, 1975). Bean (1982), states that *Intent is not a perfect predictor of behavior and grows worse as time elapses between the measure of intentions and the expected behavior* (*p* 30). While there is no length of time specified by Bean, nor evidence as to how this conclusion was arrived at, it seems reasonable to assume that the degree of certainty about one’s intentions would vary with time. The location of intent in the model is well supported by the extensive research of Fishbein and Ajzen (1975), as well as the previous studies of Bean (1980, 1982). The model is dynamic and is used to provide some understanding of the process as the student proceeds through it. Case study methodology was chosen for data collection and is described next.

**Overview Of Methodology**

The primary purpose of this study is to develop and field test an instrument which can be used to collect data on ABD (all but dissertation) students in the doctoral program of adult education. It might be appropriate to repeat that the doctoral degree is a terminal degree, and those who drop out at the ABD stage, or who fail to complete the program within the time allowed will become Terminal ABDs (TABDs). Subjects chosen for this study were limited to those students currently enrolled in the program for the following reasons: a) the institution and program area were chosen for convenience as the researcher was a graduate student there, b) the purpose of the study was to develop an instrument suitable for collecting data on factors influencing the decision to withdraw from the doctoral program in Adult Education, c) it was presumed that students currently enrolled in the program would cooperate in the study, and could supply the base-line information required, d) these students were readily available as subjects as many of them were located locally,
still in attendance at the university, and could become graduates and thereby move beyond
the ranks of the ABD, e) it was important that the researcher develop skills in instrument
construction and interviewing before attempting a study with a less accessible, and possibly
more reluctant, group of TABDs. A future study might consider expanding to include those
individuals who are TABD members and investigate their experience. The means by which
data are gathered, analysed, and reported in the pilot study are crucial to the research
design. This section describes the methodology chosen for the study, the types of questions
to be answered, the unit of analysis (defining what the "case" is), the factors to be examined
to fit the theoretical framework (developed in the previous section), and considerations as
to the reliability and validity of the evidence collected.

Research Design

The multiple case study method was selected to cover contextual conditions believed
pertinent to the study of the ABD phenomenon. The case study methodology is appropriate
when the phenomenon being studied is within a real-life context over which the
investigator has little control (Yin, 1989). Because the research questions address the topics
of how and why ABD students arrive at the decision to disengage, and as phenomenon and
context are not always distinguishable in real-life situations, in-depth interviews are used to
explore and describe the situation. Propositions on factors that can impact on the decision
to disengage and questions on process -- why or how it happens -- guide the study research.

Definition of the case study as a research strategy

Some definitions of case studies are drawn from the topics to which they are applied.
Schramm (1971) states . . . the essence of a case study, the central tendency among all types of
case study, is that it tends to illuminate a decision or set of decisions: why they were taken, how
they were implemented, and with what results. (reported in Yin, 1989, p 22-23). This definition
emphasizes "decisions" as the major component of case studies.
Yin (1989) provides a more "technical" definition: *A case study is an empirical enquiry that: investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used* (p 23). Case studies should not be considered solely as "qualitative research" as they ... *can include, and even be limited to, quantitative evidence* (Yin, p 24). Robson (1993) adds further refinement. *Case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence* (p 5).

Case studies also have a number of different applications in evaluation research. Yin reports they can be used to explain the causal links in real-life, interventions that may be too complex for survey or experimental strategies. They can be used to describe the context in which an intervention has occurred, or to explore those situations in which the intervention has no clear, single set of outcomes. Candidates for a case study are drawn from a unit of analysis.

**The Unit of Analysis**

The subjects for this study were six students currently registered in the doctoral program of the Adult Education Program Area, Department of Educational Studies, University of British Columbia, as of September 1, 1994. This was a convenience sample chosen for a number of reasons. First, students currently enrolled in the program were readily accessible, could be easily contacted as their whereabouts were known, and were likely to agree to participate in the study. Second, as the purpose of this study was to develop and pilot test an instrument to collect data on the ABD phenomenon, individuals in the doctoral program were presumed to be knowledgeable about, and willing to assist in assessing an instrument's construction, the relevance of its constructs and wording, and the order of the questions. Third, the researcher would be able to develop effective interview techniques for data collection with participants who were friendly and forthcoming. Fourth,
in order to assess the importance of the variables used in constructing the interview schedule, and to refine the instrument for use in future studies, data collection from a group of participants who could provide this information was essential. Fifth, before investigating the ABD phenomenon further, by undertaking a study with TABDs, it was deemed important to emerge from the current study with an instrument that could, with minor modifications, be applicable to this group. It was presumed that participants selected for the current study would assist in assessing applicability.

They had started their program between 1987 and 1992. This provided a group of participants at different stages of their doctoral program, all still within the six year time limit set for the completion, with the exception of one having been granted an extension. ABD participants had completed all the coursework, the comprehensive exams, and the dissertation proposal. Candidates selected for the pilot case studies were from the Greater Vancouver area (which meant they had ready access to the university and might indicate more of a likelihood that they will complete their program than doctoral students at a distance), had time remaining in their allotment, and could successfully complete, rather than become terminal ABDs. Participants had entered the doctoral program with a masters' degree and had fulfilled the residency requirements for the doctorate.

**Characteristics of participants**

Students in a doctoral program in adult education are older than traditional-age (18 to 24 year old) undergraduates. As such, they bring a broader range of experience to their role as students. Most have been employed before returning to university for doctoral studies. The external factors affecting their decisions are different from those experienced by traditional-age undergraduates. These may include family responsibilities, and roles such as spouse, parent, employee, caregiver, and social group/community organization membership. Accordingly, one would expect these students to be more affected by external
factors, than by the social integration variables affecting traditional-age undergraduate students.

Older graduate students are likely to have been members of other institutional societies or cultures through work or travel and to have experienced what Tinto (1986), refers to as the stages of passage -- separation, transition and incorporation -- and to have a more defined sense of self than traditional-age undergraduates. Experience of collaborative ventures (in home or worklife), and decision-making and following-through, is likely to be reflected in this group.

Their roles in society may have changed and they may have insights into how they have been affected. Their motivation for seeking further education may differ (e.g., self-fulfillment vs. academic teaching positions; career change rather than simple career advancement; lifestyle change) from that of traditional-age students. A greater variety of life experiences -- marriage, mortgage, employment, birth of offspring, death of parents, financial dealings including major purchases and debts, upwardly or downwardly mobile lifestyle changes -- will have impacted on them as individuals. All of these factors, or some combination of them, could affect progress to completion of the doctoral program and possibly result in terminal ABD status for the student. Hence the choice of these subjects as suitable for the pilot case study.

Preparing for Data Collection

A pilot case study protocol was developed containing the interview schedule and the procedures and general rules to be followed in using the instrument. Yin (1989) considers the case study protocol essential when a multiple case design it used, as it increases the reliability of the case study research. The protocol includes an overview of the case study project; field procedures; case study questions; and a guide for the case study report.
Pilot Case Study Protocol

As has been stated previously, the purpose of this study is to develop and field test an instrument that can be used to collect data on ABDs in adult education. Investigations will determine which personal and contextual factors influence the decision, whether consciously or unconsciously, to withdraw from, or complete, a doctoral program. A multiple case study methodology, using in-depth interviews and a brief questionnaire, were selected to investigate how and why some ABD students might arrive at the decision to discontinue the doctoral program.

The Pilot Case Study

A pilot case study is the final preparation for data collection in a case study. A pilot test is used to refine data collection plans pertaining both to content of the data and procedures to be followed. The pilot study consists of a multiple-case study (N = 6), with participants selected from the doctoral program in adult education. There were a limited number of potential participants (N = 15) to draw from, making this a convenience sample. Fifteen students met the criteria established in the unit of analysis, and all were contacted by letter to request their participation. Pilot testing allows for assessment of the interviewer's abilities to conduct interviews, to assess the usefulness of the type and order of questions, to test the methods of recording and transcribing data, and to assess measures used to diminish threats to reliability and validity.

Interviews

In-depth interviews are deemed the best data-collecting technique for the proposed research because an interview with open-ended questions allows respondents to communicate perceptions without restricting them to narrowly focused questions and simple responses. An interview schedule containing the questions to be asked of participants is included in Appendix A. The interviews are intended to be relaxed, empathic and flexible.
This is not to suggest that they are conducted in a casual and unsystematic manner. All interviewees are asked a given set of questions, though the order may differ from one interview to the next. Probes are used to obtain full answers. All probes are non-directive so as to avoid implying or suggesting a particular answer or direction of answering. This encourages participants who are currently going through the process to reflect on their experiences. As the data are collected and transcribed the narratives are shared with the interviewees and reviewed by them for accuracy. If reflection on their responses brings about changes in the narrative, these are incorporated in the report.

Each interview is audio-taped then transcribed verbatim within two weeks of the interview. Notes about the interview and interviewee are recorded immediately after each interview, and supplemented during transcription if an idea is triggered by listening to the tapes. During the interview and transcription process, participant responses are noted when they appear especially significant, or similar to responses of previous interviewees.

Reliability and Validity

The following considerations during data collection help to establish the construct validity and reliability of the pilot case study. (1) Multiple sources of evidence are used including interviews, direct observation and results of previous studies. The student’s career letter^4 discloses stated intentions at the time of admission to the doctoral program and provides a cross-check against the student’s recollection of intent expressed in the interview. Information thus collected is used as corroboration to triangulate the data, thereby increasing the construct validity of the study. (2) A case study data base containing the information collected is developed as a separate entity; this should not be confused with the pilot case report. The circumstances under which the information was collected is

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^4 When applying to the doctoral program in Adult Education at the University of British Columbia applicants are required to prepare a “career letter” which describes the applicant’s academic and professional background, indicates why the applicant has decided to pursue doctoral study in adult education, what research interests the applicant plans to pursue during the program, and what the applicant hopes to do after completion of the program.
documented (i.e. audiotapes and transcripts of interviews, primary and secondary source material used for the literature review, and any documents or records collected). By inspecting this database interested parties will be able to establish how the study's conclusions were derived. The developed data base increases the reliability of the study and becomes a resource for future studies. (3) The maintenance of a chain of evidence increases the reliability of the information in the pilot case study, enabling the reader to follow the derivation of evidence from initial research questions to ultimate conclusions. The initial questions are reflected in the content of the protocol and the specific procedures which direct how the data are to be managed and conclusions reported in the pilot case report, thus ensuring quality control during the data collection process. The close association created by the in-depth interview situation means that it is rarely bias free, and calls for self-awareness of personal assumptions and values on the part of the researcher. Acknowledging this, objectivity, the neutrality or freedom from researcher bias, is maintained by the researcher adopting a friendly yet professional approach during the interviews. Biases, when identified, are made explicit to ensure that the conclusions arrived at are those of the subjects and not the researcher. The tapes and transcripts of the interviews are reviewed by an individual external to the investigation for possible bias due to interviewer error. Bias may be created by the introduction of the interviewer's own comments, ideas, or suggested answers. In addition the interviewer's non-verbal communication, in the form of expressions or gestures such as movement of the eyebrows, tilting of the head, smiling or frowning, may be understood by the interviewee as indications of approval or disapproval. These forms of bias are not apparent in the audio-tapes or transcripts. The interviewer must be aware of these sources of bias and avoid them by using a nondirective interviewing technique and leaving it entirely up to the interviewee to provide answers to the questions.
Case Study Questions

The case study questions are of two types: those posed to the investigator as reminders of the information to be collected and why (research questions); and those asked of the interviewees (interview questions). The research questions for this study are: What are the personal and contextual factors influencing the decision to withdraw from a doctoral program? How do ABDs arrive at the decision to disengage? How do ABDs perceive their situation? The interview questions which the subjects are asked are listed in the Interview Schedule in Appendix A, and described below.

Interview Questions

The questions contained in the interview schedule were developed as a result of readings in the literature, personal observations, and reflections on previous studies. The questions were developed to represent the five constructs outlined in the conceptual model previously described (page 53). Once developed the questions were reviewed by two student researchers, and the thesis research committee. As a result of this review, revisions were made to the wording and order of the questions prior to including them in the interview schedule. Definitions of the constructs and questions used to operationalize them follow:

Background Construct

Certain characteristics of the individual have been shown to be related to dropout. Tinto (1975), states: ... the more important pertain to the characteristics of his family, the characteristics of the individual himself, his educational experiences prior to college entry, and his expectations concerning future educational attainments (p 99). Background variables

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5 The following sources proved useful in the construction of interview questions: Bradburn, Sudman and Associates (1979); Brenner, Brown and Canter (1985); Douglas (1985); Hyman (1975); and Sudman and Bradburn (1982).

6 The interview questions listed here are not in the same order as the interview schedule. For correct order of questions see Appendix A.
reflect the influence of characteristics students bring to the program and which affect their interaction with the organization. Of these, "educational experiences" and "future expectations" are included in the questions, largely to enhance the explanation of organizational and environmental constructs. The appropriateness of considering background variables in this way is supported by Bean's (1982), suggestion that *These variables can be used to indicate the types of problems an institution can expect when admitting students with certain attributes* (p 26). For a more complete understanding of why students pursue graduate education, how they find out about a program, and why they apply to a specific institution the reader should consult Malaney (1987). This study used the following five questions to collect background information.

1) I will start by asking why you chose UBC to do your doctorate?
2) Did you know any ADED faculty before you registered?
   Probe: Did you know them by reputation or personal contact?
       Any ADED students?
       Any ADED graduates?
3) What type of master's degree did you have when you started the program? From which institution and department?
4) How long did it take you to complete your masters? How would you describe your experience of the masters program?
5) Tell me about starting your doctoral program.
   Probe: Why did you enroll as a doctoral student?

Two additional background characteristics, *gender* and *ethnicity*, have been shown to affect persistence in higher education, but the effects are mainly indirect, transmitted through intervening variables (Munro, 1981; Pascarella and Terenzini, 1979; and Terenzini and Pascarella, 1980). Also, the roles of men and women in both the external and internal environments of the institutions are still somewhat distinctive, even though the stereotypes of the past are disappearing. For these reasons it was deemed important to include gender as a characteristic. The following question was developed to obtain information on perceptions of gender differences in the doctoral program.

1) Do you think there is a difference in the way men and women experience the doctoral program? Can you describe this?
Early empirical studies at predominantly white institutions typically categorized students' ethnicity as: white or nonwhite, nonminority or minority. They produced varied results about the association of ethnicity with attrition. Later the studies of Munro (1981); Pascarella and Terenzini (1980); and Terenzini, Lorang, and Pascarella (1981) revealed that there was no direct relationship between students' ethnicity and attrition. However, because ethnicity and culture might affect the way international students experience the doctoral program the following question was developed for the interview schedule.

1) You have studied with people from a number of different countries. How do you view their experience of the doctoral program?  
   Probe: What part do you think background and culture play?  
   Anything else?

Environmental Construct

Environmental variables are largely beyond the control of an institution, but they can contribute to student's decisions to withdraw or persist. Environmental variables were first introduced by Bean (1982), who argued that... environmental variables (for example, opportunity to transfer, family responsibilities, and difficulty in financing school) may directly influence dropout, ... (p 28). Tinto (1986) states: Persistence requires the individual to successfully play the role of student, whereas family life requires the person to play different roles (p 376). He suggests that when these two roles are in conflict, students are placed in a difficult situation. If they are unable to cope with the conflict they may view departure from the institution (or from the family) as a viable way of resolving it. The influence of "significant others" in the student's life was introduced as a factor by Bean and Metzner (1985).

To obtain information on work role, and family and financial responsibilities the following nine questions were asked:

1) Are you currently employed?  
   (if answer is No go to question # 4)  
   Probe: Please describe your work role.
Organizational Construct

Organizational variables are regulated by the institution. They determine the extent to which students share in group values and friendship support (Durkheim, 1951). Spady (1970) cites grade performance, normative congruence and friendship support, while Tinto (1975), lists grade performance, peer group interaction, and faculty interaction. Bean (1982) includes close friends, grades, membership in campus organizations, informal contact with faculty and helpfulness of advisor as variables which affect the student’s interaction with the organization. Cabrera, Stampen, and Hanson (1990) added to the list of organizational variables by exploring the effects of financial aid on persistence. They incorporated ability to pay into Tinto’s student integration model.

Fifteen questions were developed in this study to obtain information on the participant’s interaction with the organization.

1) Do you get together with other doctoral students?
   Probe: How do you view their present situation?
   Do you exchange ideas?
   Do you support one another? Please describe this.
2) Do you think that this kind of group is helpful?
   Probe: In what way?
3) Do you have a research topic?
   Probe: Did you have a research topic when you started?
Still the same one?
4) How did you choose your topic?
   Probe: Was your choice influenced by anyone?
5) What was the most difficult part of preparing your dissertation proposal?
   Probe: How long had you been in the program when your dissertation proposal was accepted?
6) In your opinion what is the most important quality or characteristic in a research supervisor?
   Probe: What were the most important considerations in choosing yours?
7) How did you select your research committee?
   Probe: How have they functioned as a committee?
8) Describe your relationship with your research supervisor.
   Probe: Can you be more specific? Can you give me an example? Why do you think that is?
9) Did you expect that your research supervisor would assist you to pursue funding?
   Probe: What happened? Was your supervisor helpful in this regard? Did you try?
10) What were the sources of financial assistance for your doctorate?
    Probe: Were you able to obtain a fellowship, or become a teaching assistant?
11) In your opinion what stage of the doctoral program has been the most difficult?
    Probe: Could this be any different? How was the coursework?
    How was the comprehensive exam?
    Have you found that others have the same difficulty?
12) During your time in the doctoral program you have seen people that complete and those that don’t - what makes these two groups different from each other?
    Probe: Would you have been able to predict this?
13) Have you known anyone on the point of giving up on the doctorate?
    Probe: What things did they suggest were bothering them? What did they do? Do you think that was the right choice? Have you ever felt like giving up on your program? Can you describe that for me?
14) Have you attended one or more conferences to present papers on your research? On other topics?
    Probe: How often?
    Have you been encouraged to do this?
    By whom?
15) Describe how your results will contribute to the existing body of knowledge?
    Probe: How would you describe original knowledge?
    Do you feel that your research will be accepted as original?

Attitudinal Construct

The attitudinal construct provides a subjective interpretation of the student’s objective educational experience. Students enroll in a doctoral program with a set of attitudes toward the program and the institution, which are modified by the subsequent experience of the process. When this experience is positive the student is likely to stay and complete the program. When the reverse is true the student is likely to leave. These variables are considered by Pascarella (1980) as educational outcomes, and by Bean (1982) as attitudinal and outcome variables, while Tinto (1986), calls for theory to be derived from
the student’s own perceptions of the situation. He argues that future theory must be grounded in the everyday reality of the lives of students and must make sense of their experiences in the various realms of college life (p 379). Bean (1982) includes assessments of the practical value of one’s education, occupational certainty, educational goals, and loyalty (the importance of graduating from a particular institution) among his attitudinal variables. Loyalty, here, is similar to institutional commitment, important in the models of Spady (1970), and Tinto (1975).

The current study differs from prior studies by incorporating the concept of procrastination as an attitudinal variable. Procrastination is defined by Lay (1986) as the tendency to postpone that which is necessary to reach some goal (p 475). Academic procrastination (Solomon and Rothblum, 1984); decisional procrastination (Effert and Ferrari, 1989); and the difficulty procrastinators have in estimating the time needed to complete tasks (Lay, 1986), have been reported earlier in Chapter 2. They combine with the attitudinal variables of Bean (1982), to form the basis for the eight questions developed to investigate the attitude construct.

1) Do you see utility in the doctoral degree?
   Probe: Please explain.
2) How do you view the future employment prospects for adult educators with a doctorate?
3) Do academic tasks take longer to complete than you expect?
4) Did you ever withdraw from a course in university? Why?
5) Describe a normal week of work on your dissertation?
   Probe: How much time per week do you devote to your dissertation?
6) Some people describe the process of working on the dissertation as a lonely process or one where they feel isolated. What has your experience been?
7) Are you often distracted by other, more "interesting" things when you try to get to work on your dissertation?
   Probe: Can you describe what happens?
   How do you maintain interest in your topic?
8) When papers were due for your courses, how did you organize your time?
   Probe: Did you establish a schedule that would allow you to complete on time or did you put it off until the last minute? Or both?

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In addition to the questions in the interview schedule, Tuckman’s (1991) Procrastination Scale was administered as the final stage of the interview. For a full description of this scale please see Chapter 3.
Intent

Intent, was introduced as a variable by Bean (1980, 1982), and confirmed by Pascarella and Terenzini (1983), who found a highly predictive relationship between intent to leave and actual attrition. In this regard intent to leave is closely associated with the measures of institutional commitment of Tinto (1975). Intent is included in this study (and located where it is in the conceptual model) because intentions are hypothesized to intervene between attitudes and behaviors (Fishbein and Ajzen, 1975). According to Fishbein and Ajzen, attitudes lead to intentions, which in turn lead to behavior. In this instance, attitudes toward the academic experience and its outcome, should affect the intent to continue in the program. Further support can be found in Ethington and Smart (1986), who demonstrate that students’ subsequent educational and occupational attainments can best be predicted or estimated by reviewing their initial educational and occupational intentions or aspirations.

1) When you embarked on your doctoral program, what type of position did you consider you would obtain upon completion?
   Probe: And now?
   Why?
2) When did you expect to complete your dissertation at the time you began?
   Probe: And now?
   Why?
3) Do you think you will complete in time?
   Probe: If not, what will you do?
4) Would you agree to let me review the career letter you submitted in your application to the doctoral program?

Procedures

A pre-pilot case study (N = 3), followed by a pilot case study (N = 3) were used to collect, analyse and report findings in accordance with the research design previously outlined. Data were gathered from these students (N = 6) in the doctoral program of adult education using interviews, questionnaire and documentation. The following procedures were carried out:

- subjects contacted and times arranged for interviews
- transcription services located and confirmed
- resources gathered for the interviews, including a tape recorder with an external microphone and extra cassette tapes, interview schedule, paper and pens.
- a questionnaire with a stamped, addressed envelope to be left with each subject at the conclusion of the interview session, with a request to mail the completed form to the investigator within six days.

Reports From the Pilot Cases

Reports from the pilot cases address what has been learned in terms of research design and field procedures. The reports from the initial pre-pilot cases (N = 3) indicate necessary modifications for the subsequent pilot cases (N = 3). Provision is made for interviewees to review the reports for content accuracy. The pre-pilot, and pilot case study results are reported in the following chapter.

Summary

In this chapter a conceptual model was developed to provide the theoretical framework for the study. Certain constructs from the two major theories of Tinto (1975) and Bean (1982), were incorporated into the model in an attempt to investigate some of the personal and contextual factors affecting doctoral students and the ABD phenomenon. An overview of the methodology chosen for the study was provided and the unit of analysis identified. A pilot case study protocol was developed containing an overview of the case study project, field procedures, case study questions and a guide for the case study report. The pilot case study using in-depth interviews for data collection was described. Considerations for use during data collection to help establish the validity and reliability of the pilot case study were provided. Adherence to these considerations makes the process as explicit as possible and ensures that the results are suitable for further analysis. The reports of the pre-pilot and pilot case studies are the subject of the next chapter. The analysis, results, and interpretation are reported in Chapter 5, and conclusions and implications in Chapter 6.
CHAPTER 4
CASE STUDY REPORTS

This chapter presents the pre-pilot and pilot case study reports. Limitations of the case study method, and data collection procedures, are identified. Profiles of the interview participants are developed and threats to reliability and validity reported.

The reporting phase of the case study is considered by Yin (1989) as the area perceived as the most difficult part of the process. Because the purpose of this study is to develop and field test an instrument that can be used to investigate the ABD phenomenon, two reports are included to represent both the pre-pilot and pilot studies. The pre-pilot report provides details of the selection, and interviewing of participants in the initial field test. The information derived from this pre-pilot study was carefully considered and appropriate changes made to the case study protocol prior to the next stage of the study, the pilot test. The second report presents the results of the subsequent pilot test. Finally, the data collected from these pilot tests are prepared for comparison with the theoretical propositions.

Case Study Reports

The pilot case study reports explain what has been learned from the research design and field procedures. The pilot reports summarize the details of the individual case reports, each of which suggested modifications for the following cases. The data gathered in the pilot cases came largely from in-depth interviews. The participants' perspectives are presented in the reports and their perceptions of the ABD phenomenon help form its structural framework. The conclusions and implications of the multiple-case pilot study will provide a prototype for a future in-depth study of the ABD phenomenon.
Limitations

The multiple-case study, because of its intensive nature, can focus on only a small number of cases. The limited number of potential participants, (there were only 15 students to draw from), provokes questions about the representativeness of the findings, and whether or not they provide an adequate base for the development and answering of the research questions. The close involvement of the researcher with the interviewees raises concerns about interviewer influence on events and persons involved. The investigator’s limited experience with in-depth interviewing techniques might have led to incomplete or inaccurate data. Bias could have occurred on the part of the investigator as he collected and interpreted data, or from the respondents who attempted to please or deceive the interviewer. The use of the conceptual model, which had not previously been tested, could have proved problematic. Further limitations to the study are identified in the reports that follow.

Report Of The Pre-pilot Case Study

The participants chosen for the pre-pilot case study were drawn from students registered in the doctoral program in adult education, described previously in the Unit of Analysis. Because of the small number of potential participants in this population it was decided to contact all of them. In September 1994, a letter was sent to all participants (N = 15), requesting their participation in the study. A response rate of 66% (N = 10) was achieved with a single mailing. There was no follow up mailing as only a small number (N = 6) were to be interviewed in depth. In order to determine which of the respondents would be interviewed their names were written on slips of paper and placed in a bowl. Names were drawn, (N = 3) to be the participants in the pre-pilot study. This sample consisted of two males and one female. These names were not replaced. A second sample was drawn, (N = 3) from the remaining names and consisted of two females and one male to be interviewed for the pilot study.
Due to the limited number of qualified subjects, this was a convenience sample generated to provide access to participants. There was no attempt at random sampling or possibility of generalization, and as such the sample suffers from additional limitations. First, those responding to the request for participants, (N =10) may be different from non-respondents, (N = 5) in a number of characteristics. Second, some may have been prompted to respond by respect for the author of the letter requesting participants (who is also the coordinator of doctoral admissions), and by the fact that the study was being conducted in the adult education program area. Third, the student researcher was known to many of the respondents, (one of their own). Next, those students who were successfully completing the program may have wanted to 'tell their story', as a reason for participating. Finally, those who were experiencing difficulty in the program may have participated in the hopes of finding some inspiration or understanding from the process. Or, if they had felt isolated, they may have seen participation as a way of re-engaging in activities of the department. A further limitation was the decision to not do a follow-up mailing. Those not responding to the first mailing, may have responded to a second mailing, and provided additional insights. Lastly, it must be noted that the instrument used in the pre-pilot study was constructed by the researcher and had not been previously tested.

Conduct of the Pre-Pilot Study

Participants (N =3) were contacted by telephone and e-mail and interview times arranged. Interviews were approximately two hours in duration and each was conducted in a similar manner. The interviewer began by thanking interviewees for their participation. The purpose of the study was briefly explained and an assurance of confidentiality provided. Participants were asked to confirm their understanding of this, and also asked if they had any questions before the interview began. These preliminaries were tape recorded so they appear in the transcripts which were shared with participants. This allowed participants to provide honest and full responses to the questions. It was hoped the transcribed statement
would prompt disclosure of additional information, thus providing further insights into participants’ experiences as doctoral students. It should be noted however, that there was no way to test whether honest answers were provided.

The pre-pilot study was used to refine data collection plans pertaining both to content of the data and procedures to be followed. It provided an opportunity to assess the interviewer’s abilities to conduct interviews; to assess the usefulness of the type and order of questions; to test the methods of recording and transcribing data; and to assess measures used to diminish threats to reliability and validity.

**Interview Questions**

The questions in the interview schedule were developed as a result of readings in the literature, personal observations, peer suggestions, and reflections on previous studies. The questions were developed to operationalize the five constructs outlined in the conceptual model previously described (page 53). Each question was subjected to the following criteria: 1) is the question related to the research problem and objective? ; 2) does the question refer to the construct being operationalized? ; 3) is the item clear and unambiguous? ; 4) is the question in any way leading? ; 5) does the question demand knowledge or information that the respondent does not have? ; 6) does the question demand personal or sensitive information that the respondent may resist?

To arrive at the final number of questions used to operationalize each construct the following process took place. First, preliminary questions were developed representing factors suggested by the literature. Second, the questions were presented to two student researchers with a request for additional suggestions. Third, a list of 70 questions was compiled and reviewed by two student researchers, and the research committee. Finally, once duplicate and redundant questions were removed the 43 remaining questions, representing the five variables, were used to develop the interview schedule. Interview questions were used to operationalize the constructs as follows: Background, 7 questions;
Environment, 9 questions; Organization, 15 questions; Attitude, 8 questions; Intent, 4 questions. Because the organizational and environmental constructs proved more complex they required a larger number of questions to address them. Lastly, following the recommendations of Sudman and Bradburn (1982), the background questions were used as a "warm-up" before questions which dealt specifically with the perspectives being sought.

**Interviews**

In-depth interviews were conducted with each of the participants (N = 3). While the interviews were relaxed, empathic, and flexible, they were not casual and unsystematic. All interviewees were asked a given set of questions, although their order varied depending on the answers provided by the respondent. If the interviewee provided an answer which led into a question further along the interview schedule, that question was asked next to obtain as full and consistent a response as possible. When the response was complete the interviewer directed the questioning back to the scheduled sequence. Out of sequence questions/responses were not frequent enough to merit re-ordering the questions. Non-directive probes were used to obtain full answers.

Approximately half-way through the interview, about one hour after the start, participants were asked if they wished to take a break. Two of the three participants took a 10-15 minute break. The audio-tape was stopped, and no discussion of the interview or topic took place until the interview resumed and the audio-tape re-started. The interviewer then gave a brief synopsis of the previous dialogue to allow participants to add further information, and to set the stage for proceeding. When all questions in the interview schedule had been responded to, with what the researcher deemed to be as full an answer as possible, the interviewees were asked if they had any questions or wished to make any last comments. This usually provided some additional remarks.

Next, participants were asked if they would allow the researcher to review the 'career letter' submitted as part of their application to the doctoral program. This request
represented an attempt to triangulate information by cross-checking participants' interview responses regarding their reasons for undertaking doctoral study, with those stated at the time of application. It was presumed the career letter would provide some information on perceptions of the doctoral process, the perceived utility of the doctoral degree, and intent at the time of application. Participants signed a consent form which allowed the researcher to have access to the career letter in their file.

When the interview was completed, but before the interviewer departed, three additional items were addressed. First, each participant was provided with a questionnaire, (Tuckman's procrastination scale) and instructed to complete and return to the researcher in the self-addressed, stamped envelope provided. Second, each participant was asked if he/she would agree to review the interview transcripts. All agreed. Third, each participant was provided with an evaluation form and a copy of the questions asked in the interview. They were requested to evaluate the interview schedule for appropriateness, wording, and possible omissions, and to comment on the interview process. Participants were asked to return the evaluation in the same envelope as the questionnaire (all participants complied). The interviewer then thanked them again for their participation and departed.

The interviewer then recorded his observations of the interview for comparison with notes taken during the interview. This proved to be one of the least successful parts of the process. Due to the inexperience of the interviewer, hastily written observations indicating changes in body language, (such as eye movements, changes in facial expression, changes in posture, or shrugging and squirming, which might provide additional insight to the experienced observer) became a series of almost unintelligible half-words which could not be relied upon for clarity or meaning. This area would definitely benefit from improvement.

A verbatim transcription of the interview was provided to each participant for review and comment. An individual, independent of the study, was asked to review random sections of the audio-tapes and transcriptions and to indicate any perceptions of interviewer bias. These comments are taken into account for the pilot study. The reviewer was asked to
note whether the questions were asked in a consistent manner, whether the interviewer allowed the respondent to provide complete answers without assistance, and, any other perceived bias on the part of the interviewer. These incidents of bias are included in the pre-pilot study report which follows.

**Pre-Pilot Study Report**

An initial set of three interviews was undertaken to refine data collection plans and procedures, to assess the interviewer's ability to conduct interviews, the usefulness of the type and order of questions and methods of recording and transcribing data. Transcripts were reviewed by participants. The researcher cross-checked interview audio-tapes with transcripts for accuracy of transcription. When these reviews were completed the researcher read each transcript in a first attempt to identify themes; themes were defined as commonalities in the opinions of the doctoral students interviewed. However, it became evident that recognizing commonalities from the transcripts was only a beginning. Themes might be deeply embedded in responses, and only identifiable after repeated scrutiny of an enlarged data base. To provide this additional data subsequent interviews were required.

As a first step toward analysis of the data, summaries of pre-pilot interviews were developed. Each was reported as an individual case (see Appendix B). These reports, and the methods used to develop them add to the chain of evidence increasing the reliability of the information in the pre-pilot case study, enabling the reader to follow the derivation of evidence.

**Information Arising From Pre-pilot Interview Process**

The process of conducting the pre-pilot study uncovered useful information for consideration before undertaking the subsequent pilot study interviews. Miles and Huberman (1994) describe one of the major features of well-collected qualitative data as the focus on naturally occurring, ordinary events in natural settings, so that we have a strong handle
on what "real life" is like (p 10). However, before this "real life" can be described, an understanding of the conditions under which the data were obtained must be provided. How, where, when, and from whom the data were collected place limits on the conclusions that can be drawn and how much confidence the investigator, and others place in them. The following subsections contain descriptions of data collection for the pre-pilot study.

**Scheduling:** The scheduling of interviews did not prove difficult. In one case an interview had to be re-scheduled for the following day due to family responsibilities, but this did not pose a problem. Other than that, interviewees were good about keeping appointments and ensuring they would be able to spend enough time on the interview, by not scheduling anything immediately afterward. They participated fully in the interviews and appeared eager to discuss their experiences. They were candid and forthcoming in their responses to questions when assured of confidentiality.

**Interview Locations:** The first interview took place in the interviewee's home, while the second and third interviews were conducted in room #5 at the Adult Education Research Centre.

**Conducting Interviews:** All interviews were conducted in accordance with the pilot case-study protocol established earlier.

**Length:** The first interview was two hours and twenty-five minutes in length, the second one hour and fifty-five minutes, and the third one hour and fifty minutes.

**Order:** All questions on the interview schedule were asked of each participant. The order changed somewhat in the first interview because of a telephone interruption, and in the second and third interviews as a result of participants digressing slightly and referring to topics which appeared later in the schedule. It was felt appropriate to allow them to continue along that line by asking the related questions and probing for full answers. This did not appear to interrupt the order or flow of the interview.

**Interruptions:** The second part of the first interview was interrupted by the interviewee being called to the telephone to take a call from his research supervisor. On the
chance that this conversation might bias the participant’s response to questions regarding his/her relationship with his/her supervisor, the order of the questions on the interview schedule was altered. Questions about peer support, research topic selection, and preparation of the dissertation proposal were asked before questions regarding important qualities or characteristics in a research supervisor, and the participant’s relationship with his supervisor. The elapsed time between the phone call and questions about the research supervisor was thirty minutes. Whether or not this delay was long enough to dampen any effect of the phone call (which the participant remarked at the time was a "positive" and "supportive" one), can only be speculated. The interruption did not appear to disturb the interviewee. To allow the participant to complete his interrupted answer the interviewer provided a summary of the discussion up to the time of the interruption. At that point the focus had been on the word "power" which the subject had used in his response statement just prior to the call. The summary helped him complete his response.

**Objective Distance:** The friendliness of the interviewees, and their willingness to participate in the study made objectivity difficult to maintain initially. The interviewer realized that if he appeared to be too friendly, the reliability and the validity of the data might be adversely affected. However, an overly cool demeanor on the interviewer’s part could lead to respondents’ being unwilling to share true perceptions. The interviewer decided that a friendly, informal relationship would increase the range and depth of data provided by the interviewees. In an attempt to insure the validity of the approach, each interview followed a similar pattern of questioning.

**Digression:** The non-formal nature of the interviews allowed a certain amount of digression in the response. Unless the digression appeared to be a way of not answering the question, in which case a non-directive probe was used to return attention to the question until an answer was received.

**Tape Recording:** All interviews were audio-taped and transcribed verbatim. Tapes from the first and third interviews were transcribed by a transcription service. Because the
service had difficulty understanding the accent of the participant in the second interview it was transcribed by the researcher. Copies of transcripts were delivered to the interviewees for content verification and accuracy of transcription. The accuracy of the transcripts was verified by the interviewer listening to the audio recordings while simultaneously reading the transcripts. Only minor errors in transcription were found; they were corrected. Lengthy pauses before answering questions ( > 5 seconds), laughter, emphatic statements and changes in tone of voice were noted on the transcripts. Random portions of each of the interview tapes were reviewed by peer researchers for instances of interviewer bias. The same individual reviewed the transcripts.

Weaknesses Identified

Certain weaknesses were made obvious by this process. Due to the inexperience of the interviewer, there were instances in the first interview of a tendency to offer interpretations when the interviewee appeared to be having difficulty answering a question fully. This coaching bias was initially recognized during the interview. Subsequently, the interviewer consciously attempted to develop patience and allow the interviewee to take whatever time was necessary to formulate a response. This proved somewhat, but not completely, successful. To prevent coaching bias from recurring in later interviews notes were made in the border of the interview schedule that read "wait for response - probe for full answers". This was placed on each page of the interview schedule and helped to dramatically reduce the incidence of this type of bias in subsequent interviews.

Another weakness attributable to interviewer inexperience appeared in the second and third interviews. Because the participants in these two interviews were international students, whose first language was not English, the interviewer found that he had unconsciously included more information in their questions, which might have biased the way a question was answered. For example:
Case #1 - Tell me about starting your doctoral program. What was that like?

Case #2 - Tell me about starting your doctoral program. What got you interested in doing a doctorate, and why in adult education?

Case #3 - Tell me about starting your doctoral program. Why did you enroll as a doctoral student? When did the decision come up?

Because the difference in the amount of information provided in the question might have biased the response this is a limitation which must be taken into consideration when analyzing the data. The tendency to provide additional detail in questions appeared to be more prominent with the female respondent. In subsequent interviews this is eliminated by maintaining awareness of the problem, asking the same questions of each participant, and by having an impartial individual listen to the tape recording after each interview to identify incidences of interviewer bias before subsequent interviews are conducted.

**Reliability:** To diminish threats to reliability in subsequent interviews the relationship between interviewers and interviewees is kept friendly, yet professional. Because the circumstances of an interview can affect the type of information revealed, attempts were made to hold interviews in a neutral setting where possible. Room #5 at the Adult Education Research Centre (AERC) is quiet, free from disruptions (such as telephones), and can be reserved ahead of time. One must be aware, however, that this may not be considered a neutral setting by some of the potential interviewees, (if, for instance, they have had a negative experience in AERC at some time in the past). They might feel they can’t be completely forthcoming because of the proximity of faculty in the building, or they may not want it known that they are participating in the study. If this proved to be a concern, the participants’ selection of an interview setting, (if they felt more comfortable discussing things in their home for instance) took precedence.

As mentioned earlier the pre-pilot study interviews were audio-taped and transcribed verbatim. Copies of the transcripts were provided to interviewees who checked for content accuracy, and made additional comments which resulted from reviewing the transcripts.
The dependability of the researcher's data-collecting process, and the reliability of his description of it, were verified by a peer researcher who read the transcripts and listened to the tape recordings to detect any interviewer bias. If bias is found it is reported.

**Validity:** An effort is made to minimize threats to validity by reviewing the results of the pre-pilot interviews and ensuring that a similar friendly yet professional relationship is established between the interviewer and interviewee. Attention is paid to the interview schedule to ensure each participant is asked the same questions and that probes are used effectively to elicit full answers.

To discourage participants from providing the response they suspect the interviewer wants, non-directive probes are used. These avoid the implication that there is a "correct" way to answer the question. To prevent "leading the witness" or helping respondents with their answers, the interview schedule is more strictly adhered to. As in the pre-pilot study, the order of questions are determined by the interview situation, and all questions on the interview schedule are asked of each participant. It was anticipated that these efforts would minimize threats to reliability and validity during data collection for the pilot study.

**Peer Examination:** At the close of each pre-pilot interview an evaluation form, a set of interview questions, and a questionnaire (the procrastination scale) were left with each participant, with instructions to complete and return them in a stamped envelope, addressed to the interviewer's home, within six days. Only one, Case #3, returned the materials according to the instructions (by mail, within six days). Of the remaining two: Case #1, completed the materials and placed them in the stamped addressed envelope, but hand delivered this to the researcher while Case #2, placed the completed materials in a separate envelope, and included the unused stamped, addressed envelope, which he then delivered to the researcher at the university. He suggested that the envelope could be used again.

The evaluation form contained a brief description of the purpose of the study and the following four questions:

1) In your opinion, were the questions included in the interview appropriate to the topic under investigation?
2) Were the questions worded in a way that was easy to understand?

3) Were there other questions you think should have been asked? If so, please describe.

4) In your opinion, were any areas missed? If so, please indicate.

Participant responses are briefly outlined below:

1) All participants agreed that the questions included in the interview were appropriate to the topic under investigation. Case #1, asked the purpose of the career letter review, and Case #3, asked how the interviewer would define student progress.

2) All agreed that the questions were worded in such a way that they were easily understood. Case #1, commented that question #1 and question #5 may be interpreted as asking the same question. They are in fact quite different with question #1 asking about the choice of UBC as an institution, while question #5, asks why they enrolled as a doctoral student.

3) In regards to other questions they indicated should have been asked, Case #1 suggested the following: a) ask about different courses - were some harder, more challenging/more enjoyable than others? Is the order in which you do courses’ important? b) ask participants to describe the stages of their doctoral program, and then ask which stages were most difficult/stressful and why? c) have students say what they would have liked to have known during their program that would have helped them/made it easier. Case #2 suggested that specific questions could be directed at each stage of the doctoral process e.g., coursework, comprehensive exams, proposal, data collection, preparation of the dissertation.

4) When asked to indicate any areas that were missed, Case #1 suggested to ask about UBC’s facilities e.g. computer system and library. Case #2 felt that the range of questions was adequate, while Case #3 suggested asking specifically about the comprehensive exam and stated . . . I know people who withdrew because they didn’t pass the comprehensive exam . . . I was myself very anxious about it. [Because of doubts raised by this
last statement the participant was contacted for clarification. The reference was in fact to a past participant in the masters program, not the doctoral program).

These suggestions are reflected in the revised interview schedule.

Report Of The Pilot Study

A pilot study was undertaken to further refine data collection plans pertaining both to content of the data and the procedures followed. This provided a further opportunity to assess the interviewer's abilities to conduct interviews; to assess the usefulness of the type and order of questions; and to assess measures used to diminish threats to reliability and validity.

As a result of the evaluation of questions, done by participants in the pre-pilot study, a modification was made to one question on the interview schedule to include more specific questions regarding each separate stage of the doctoral program and the comprehensive exam. Question # 33 was modified to incorporate these changes as follows:

33) In your opinion what part of the doctoral program has been the most difficult?
   Probe: Could this be any different?
   How?
   Have you found that others have the same difficulty?

The question was re-worded as follows, with the changes highlighted:

33) In your opinion what stage of the doctoral program has been the most difficult?
   Probe: Could this be any different?
   How was the coursework?
   How was the comprehensive exam?
   Have you found that others have the same difficulty?

As this was the only revision to the interview schedule it was not considered substantially changed.

Conduct of the Pilot Study

Participants selected for the pilot study, (two females and one male) were contacted by telephone and times for interviews arranged. Interviews were conducted in accordance
with the pilot case-study protocol and procedures established in the pre-pilot study. The interviews were approximately two hours in duration. As in the pre-pilot interviews, all questions on the interview schedule were asked of each participant. The order of questions was followed with enough flexibility to allow for minor digression. This did not interrupt the order or flow of the interview. The first interview was interrupted fifty-five minutes after it began by a telephone call. When the telephone conversation concluded the interviewee completed his answer to the question without difficulty. Before any further questions were asked, and as this was approximately mid-way through the interview, it was agreed that this was an appropriate time to take a ten minute break. Near the end of this interview there was a disturbance created outside the office by someone vacuuming the hall. While this did not interrupt the interview it was distracting. There were no interruptions in the other two interviews.

Objective distance was maintained during the interviews by the interviewer establishing a friendly yet professional relationship, which also helped to diminish threats to reliability. Threats to validity, identified in the pre-pilot study, were minimized by ensuring that each participant was asked the same question, with the same amount of detail, and that probes were used effectively to elicit full answers. To limit coaching bias the interviewer allowed the interviewee whatever time was necessary to formulate a response. This was accomplished by the interviewer not speaking, once the question was asked, until the interviewee had finished responding. This was indicated either by the respondent not speaking further in reply to the question, (i.e., a silence of three to five seconds), or by looking at the interviewer as if anticipating another question. At that time the interviewer would either use a non-directive probe, if deemed appropriate, or ask the next scheduled question. Attempts were made by the interviewer to limit any confirmation that the question was being answered appropriately, or to indicate approval for the way it was answered. This meant remaining aware of non-verbal cues, such as nodding the head, or smiling, as well as verbal responses. While this felt somewhat unusual at first to the
interviewer it did not appear to affect the interviewee. If anything, it might have precipitated fuller answers as the interviewee, having provided an initial answer to the question, and not having that answer confirmed or another question asked directly, appeared to feel as if he/she had not adequately answered the question and proceeded to provide further information. This indicates that a lack of immediate response to an answer, combined with a bit of patience by the interviewer, constitutes an effective non-verbal probe. In an attempt to insure validity of this approach, each interview followed a similar pattern of questioning. The audio-tape of each session was reviewed for possible interviewer bias before the next interview was undertaken.

All interviews were audio-taped and transcribed verbatim. Copies were provided to participants for content verification and accuracy of transcription. The transcripts were cross-checked for accuracy by the interviewer listening to audio recordings while simultaneously reading transcripts. Only minor errors were found consisting mainly of difficult to understand words; these were corrected.

Summary reports of the pilot study interviews were prepared and are presented as individual cases (Appendix B). These reports effectively reduced the volume of information resulting from the interviews to a more manageable level, while adding to the chain of evidence. When combined with the summary reports from the pre-pilot study the resulting data base proved adequate for analysis both within, and across cases.

Summary

In this chapter the pre-pilot, and pilot case study reports were presented. Limitations of the researcher's use of the case study method, and data collection procedures were identified. Profiles of the interview participants were developed and threats to reliability and validity reported. Methods of analyzing the evidence were then considered and are reported in Appendix C, together with the interpretation of the results of data collected during the the pilot studies.
CHAPTER 5
ANALYSIS OF INSTRUMENT PERFORMANCE

This chapter reports on the performance of the instrument developed to collect data on the All But Dissertation phenomenon in doctoral students in the field of adult education. The aim of this study is to improve methods of investigating doctoral attrition. In order to provide a comprehensive understanding of the role of this study in achieving the overall aim a review of the construction of questions in the interview schedule is necessary. This review is followed by an assessment of the adequacy of the interview questions during field trials, the procrastination scale, supporting documents, and the effectiveness of the interviewing process.

Development Of The Research Instrument

In developing interview questions an inexperienced researcher should be aware of the contradictory processes that can come to bear. On one hand there is a tendency to include every possible question in the hopes that some will be the "right" ones. On the other, there is the desire to ask as few questions as possible so as not to offend the participants or wear them out in the process. In constructing interview questions for this study criteria were established in order to make the interview questions as reliable as possible (multiple questions for each construct under study), while at the same time making the instrument as valid as possible (questions that tapped only the information sought, and none that might confound, tire, or annoy the participants). The following guidelines were considered for each question:

1) Is the question related to the research problem and objective?
2) Is the type of question appropriate to the study?
3) Is the item clear and unambiguous?
4) Is the question in any way leading?
5) Does the question demand knowledge or information that the respondent does not have?
6) Does the question demand personal or sensitive information that the respondent may resist?
7) Does the question contain elements, or indications, of social desirability?

Initially, many questions were identified as potentially useful because they described components of each of the constructs under consideration. They were derived from readings in the literature, personal observations, and requests to peers for suggestions. The resulting large number of potential questions, when subjected to the guidelines, was reduced to 70 questions. After review by two student researchers and the research committee, duplicate or redundant questions were removed. The remaining 43 questions were deemed to represent all five constructs in the conceptual model adequately (Figure 4), and were used to develop the interview schedule.

Following Sudman and Bradburn (1982), questions were divided into two classes: 
*those that asked about behavior or facts and those that asked about psychological states or attitudes* (p 17). Behavioral questions concerned individual characteristics, and actions by the participants, as well as external events which happened to the participant and which could be verified or observed by a third party. Psychological states or attitudes exist only in the minds of participants and are not verifiable by an external observer. For this reason extra care was required in constructing questions to assess attitudes. Sudman and Bradburn (1982) use the concept of *response effect* to refer to this lack of verifiability of attitudes. They categorize response effect as including components of bias and variability, where *bias is taken to mean an estimate that is more or less than a true value*, and variability is measured by the *susceptibility of measurements to differences in question wording* (p 18). They caution
that questions about some attitudes are more susceptible to question-wording differences than others. For example, a question on income such as "What was your total income last year?" may be answered by the respondent as simply a statement of his/her annual salary, and not reporting any non-salary income. Changing the wording slightly to make the question more explicit "What was your total income from all sources last year?" still may not provide an accurate answer. The respondent may have simply forgotten about certain amounts of income (particularly small or erratic sources such as interest on savings accounts, or dividend payments). Or the respondent may attribute income to a wrong time period (income received in one year attributed to another year). The respondent may fail to report gift income or may deliberately over- or understate income in order to make an impression on the interviewer. Finally, the respondent may also simply want to conceal income (either illegal income or income they did not report on their income tax). All of these can contribute to response error.

Sudman and Bradburn (1982) identify memory, motivation, communication and knowledge as the four factors related to response error. The first manifests when an individual forgets material, or incorrectly recalls the time at which something happened. The second when respondents want to present themselves in a favourable light or fear the consequences of a response. The third when respondents do not understand the question being asked and answer the question in terms of their own understanding. And the fourth when respondents do not know the answer to the question but answer it anyway without indicating their lack of knowledge. One way to reduce response error is to use words in the questions that all participants in the study understand, and that have only the meaning intended. This was a particular concern both prior to the pilot studies, and during the interviews with participants whose first language was not English. Note the interviewer error previously reported in Chapter 4. In constructing the questions for the interview schedule the following concerns were considered.
Informants: Certain questions were constructed which required the participant to report about other student's behavior. This casts the respondent in the role of informant and is considered by Sudman and Bradburn (1982) as especially efficient when you are screening the population for those who have a required attribute (p 51). In this case participants were asked to discuss students they have known in the doctoral program who were considering giving up (questions 34 & 35), and also about international students and the differences in men’s and women’s experience of the doctoral program (questions 36 & 37). Sudman and Bradburn suggest that respondents will not be as threatened from questions about the behavior of others as they are from questions about their own behavior (p 75). Thus, questions 34 & 35 ask about others before participants are asked about themselves. Also question 20 asks about getting together with other doctoral students, before more direct questions are posed regarding research topic and dissertation proposal. When using a respondent as an informant it must be remembered the information provided is subject to distortion due to the informant's attitudes, and his/her role in the institutional community.

Attitudes: Attitudes do not exist in the abstract, they are "about" or "toward" something. That something is referred to by Sudman and Bradburn (1982) as the attitude object. In formulating attitude questions clear specification of the attitude object is necessary so that ambiguity is reduced. Feedback from participants is essential to determine if the questions are worded in such a way that the meaning is clear to them.

Once the attitude object is determined, three components of attitudes can be explored: affective or evaluative; cognitive; and action (Sudman and Bradburn, 1982). Questions 15 and 16 ask what the respondent knows or thinks about the attitude object, the doctoral degree, and are, thus, cognitive. Questions 17, 18, 25 and 27 concern willingness or intention to do something with regard to the object of the attitude, procrastination, and address the action component. Questions 19 and 26, are examples of the affective or evaluative component of the attitude objects in that they concern withdrawal and isolation.
Asking threatening questions. Sudman and Bradburn (1982) report that long
questions are better than short questions for obtaining information on the frequencies of socially
undesirable behavior (p 55). They further suggest that asking about only a single event from
among common events [provides] increased accuracy in the response to a threatening topic (p
59), making this a useful approach to question construction. Questions 19 and 27 which ask
about dropping out of a course, and procrastination behavior, might be interpreted by
participants as threatening.

Embedding the question. The threat of a question is partially determined by the
context in which it is asked. Sudman and Bradburn suggest that if more threatening topics
have been asked about earlier, the question may appear less threatening than if it had been
asked first (p 78). Thus questions 18 and 19, referring to procrastination behaviour, follow a
more general question (17), which asks about time management. These questions follow
the block of sensitive questions (13 - 16) on finances and employment prospects.

When undesirable behavior such as procrastination is explored it may be perceived
by respondents as a threatening topic, and therefore be subject to response error. The
perceived importance of the topic may be reduced by using non-interview methods which
provide a degree of anonymity. Sudman and Bradburn state that the more anonymous the
respondent feels, the better will be the reporting of threatening behavior (p 79). For this reason
the Procrastination Scale was re-labelled "Questionnaire", and participants were asked to
mail it to the interviewer's home in a stamped, addressed envelope which contained no
marks or symbols to identify the respondent. While it was hoped that this would encourage
respondents to answer the questions honestly (i.e., not necessarily in a socially acceptable
way) there was no method of accurately assessing their answers. As a cross-check the
responses on the procrastination scale were compared with answers provided in the
interview to questions 17, 18, 26, and 27 which were constructed to elicit information from
respondents on procrastination behavior.
Order: The order of questions provides a context or framework within which questions are answered. Sudman and Bradburn (1982) suggest that *questions that are quite closely related ... may increase the saliency of particular aspects of an opinion or provide a further definition of a particular aspect* (p 142). For this reason questions were placed in blocks in the interview schedule to follow the order of the constructs in the conceptual model. That is, background questions were placed first, followed by environmental questions, then attitude questions, next organizational questions and lastly by questions operationalizing intent. Two exceptions should be noted. Attitude questions 25, 26, and 27 were placed one-third of the way through the group of organizational questions, and background questions 36 and 37 were placed near the end of the same group. These were considered to be sensitive questions, the first three dealing with procrastination, and the latter two with ethnicity, and gender. They were placed following more general questions in the organizational group in an attempt to minimize order effects.

Open Questions/Open Answers: Open questions were used throughout the interview to allow respondents to answer in their own words. The interviewer recorded verbatim what the respondents said in answer to the questions. Non-directive probes were used to seek clarification and elicit full responses. This open-ended format allowed respondents to give their opinions fully and with as much nuance as they were capable of. Also it allowed respondents to express themselves in language that was comfortable for them, congenial to their views, and produced quotable material which enlivened the research report. A disadvantage is the amount of material generated, which required summarizing, coding, and reducing for analysis.

Participant Evaluation: Finally, the respondents were provided with an opportunity to tell the researcher what they thought of the study, and the interview questions. Participants were provided with an evaluation form containing a brief description of the purpose of the study, questions regarding the appropriateness and wording of the interview
questions, and were asked to suggest questions or topics which might be included in future interviews.

The Interview Questions

The schedule of interview questions is an integral part of the Pilot Case Study Protocol (Appendix A). The introductory section of the schedule starts with thanking the interviewee for agreeing to participate in the study. The purpose of the study is explained, and an overview of the questions is provided. An assurance of confidentiality is given, and a brief explanation is provided of how the data will be treated and stored. The participants are asked to acknowledge this introduction, and asked if they have any questions before the interview begins.

The order of the questions in the interview schedule is as important as the questions themselves. For this reason the major points suggested by Sudman and Bradburn (1982) are used as a framework for the order of questions in the interview schedule. They recommend: start with easy, salient, non-threatening, but necessary questions (p 207).

Background

The first question asking why the participant chose UBC to do his/her doctorate was intended to focus the respondent’s attention on the subject matter of the interview, as well as providing some indication of the respondent’s knowledge of the university and its programs. Question 2 continues the process of focusing the respondents’ attention on the adult education program area at UBC, and allows them to explain more fully their decision to attend UBC. Since these questions precede any questions on specific topics, they are non-threatening and aid in developing rapport between interviewer and respondent. Question 3 asks respondents to specify facts regarding prior educational attainment, while question 4, asks them to reflect on this previous experience. It was hoped that in recounting this experience the respondents would begin to provide longer, more descriptive answers,
allowing the interviewer to observe body movements and expressions. Question 5 asks specifically about starting the doctoral program and requires the respondents to explain in greater detail how and why they enrolled as a doctoral student. As such, it is the first specific topic question which allows the respondent to begin to tell her/his story. This also continues rapport-building between the interviewer and respondent as each becomes more comfortable in each other's presence. The results of the pre-pilot, and pilot studies indicate that respondents were comfortable with these questions.

When the respondent has answered question 5, a transition statement is read by the interviewer to let the respondent know that questions will be asked about work, family, and financial responsibilities. These are sensitive questions which respondents may hesitate to answer if they are caught off guard. Announcing the questions were forthcoming was anticipated to make the respondent less reluctant to provide the information.

This statement also represents the transition from the block of questions concerning the background construct into the block of questions concerning the environmental construct. The sentence announcing the content of future questions was included to ease the transition.

**Environment**

Sudman and Bradburn (1982) suggest order effects in personal interviews can be minimized by funnelling procedures, that is, starting with more general questions before moving to more specific questions. Thus, question 6 asks a general question regarding employment, then probes allow for branching questions to determine more of the specific duties and practices of that employment. This question also contains skip instructions in the event that the respondent answers with a simple "No" response. The skip instruction is placed immediately after the answer so that the interviewer will have no chance of missing the instruction (Sudman and Bradburn, 1982). Questions 7 and 8 are branch questions of the more general question 6. They ask the respondent if completion of the degree is
necessary for advancement or continuation of employment, and pose questions about
decision-making style. Both of these questions address motivation. Question # 9 is the skip
question for those respondents not currently employed and asks them to describe the kind
of work they would like to be doing, and whether it requires a doctorate. Again, this
investigates the possibility of employment as a motivator for completion.

Home and Family

Having covered the questions relating to employment the interviewer now moves on
to more sensitive areas. When switching topics the use of a transition phrase makes it easier
for respondents to switch their train of thought (Sudman and Bradburn, 1982). The
transition sentence alerts the respondent once again that questions are forthcoming about
home and family responsibilities. This second repetition is included in anticipation of
minimizing the respondent’s hesitation to answer these questions. Question 10 is a general
question allowing participants to begin describing their family and what they perceive as
their family responsibilities, prior to more specific questions. Question 11 concerns
interactions with "significant others", and how time and space are negotiated to allow
concentration on studies. This question attempts to obtain information on the perception of
participants about familial support for the continuation of studies. This sets the stage for
question 12, which specifically addresses the impact of the participants devotion to studies
on relationships and family life. The probes are designed to provoke reflection on specific
examples of problematic situations which might be attributed to the amount of time spent
on studies at the expense of other activities. Participants are asked to describe how they
deal with such situations. The results of the pre-pilot and pilot studies indicate that
participants understood the questions and were sufficiently comfortable with the interview
situation that they did not hesitate to provide information. These questions were included in
the interview schedule because family responsibility is a highly salient topic.
Finances

Next the interviewer uses a transitional phrase to alert the respondent to the upcoming questions regarding finances. The wording indicates other people have reported finances to be a factor in doctoral study. Sudman and Bradburn (1982) recommend leaving questions regarding finances until near the end of the interview because of their sensitive nature. However, in this case it was presumed that because of the close connection between family and finances, that respondents would be willing to answer. The results of the pre-pilot and pilot studies indicate that respondents were comfortable with the wording and sequence of these questions. Question 13 asks respondents to provide information on their financial situation when they began the program. It was included to determine what type of financial planning went into the decision to enroll, and how respondents intended to finance their studies. Also it provides an indication of the anticipated length of time required to complete the doctorate. Question 14 asks specifically about the financial situation. It is made less threatening by asking respondents to compare their own situation with that of others in their program. Thus, the respondent is also acting as an informant, providing information about other doctoral students. This question concluded the three sub-groups of questions addressing the environmental construct.

Attitudes

As a transition to the attitude construct, a general question 15, solicits information on respondents’ attitudes toward the utility of the doctoral degree. It follows the recommendation of Sudman and Bradburn (1982) that when dealing with attitudes in personal interviews it is often useful to start with some fairly general open-ended attitude questions dealing with the major topic of the study. Question 16 continues this process by addressing perceptions of future employment prospects for adult educators with a doctorate. Results of the pre-pilot and pilot studies indicate that respondents answered this question in a conversational manner.
At this point in the interview the focus shifts from the future to the past, though continuing to obtain information on attitudinal factors. A short transitional phrase ("I want you now to think back to when you were doing your coursework for the doctorate") alerts the respondent to expect questions concerning past attitudes and behaviours. Question 17 then requests information on organizational and time management skills, and question 18 asks respondents if they can accurately predict the length of time it takes to complete tasks. Research in the literature indicates that these are characteristics of procrastination behavior (Burka and Yuen, 1982; Lay, 1986). Similar questions on the procrastination scale allow for cross checking of participant responses. Question 19 asks if the respondent has ever withdrawn from a university course and, if so, why. Research indicates that subsequent educational attainments can best be estimated by reviewing past educational attainments (Ethington and Smart, 1986). The question was expected also, to indicate the respondent's attitude to dropping out of a course. Results of the pre-pilot and pilot studies indicate that this question caused some respondents to hesitate in answering. While the question is straightforward and the wording easily understood, the majority of respondents asked for clarification. This question appears to be a highly sensitive one which respondents interpret as being socially unacceptable behavior. They therefore ask for clarification in an attempt to gain time to formulate an answer. Because of this result it may be appropriate to consider relocating the question from the middle to nearer the end of the interview in future studies.

Organization

At this point, approximately mid-way through the interview, participants were allowed a short break prior to responding to the organizational questions which were the most numerous in the interview. The new topic required a transition to lead into participants' interaction with the institution. The wording of the transitional sentence ("So that I can compare your experience with others in the program, I would now like to ask you
some questions about your experience of the doctoral process") indicated that others had been, or would be, asked the same questions. It was hoped that respondents would anticipate greater opportunity for anonymity in group reports (less chance that their response might be attributed directly to them) and would therefore answer questions in a full and forthright manner.

**Doctoral Process**

Question 20 is a general question which asks if participants get together with other doctoral students, and the probes allow for branching into subsequent questions to elicit a full response. Results of the pilot study indicate that question 21, which asks if the respondent thinks this kind of a group is helpful, should be skipped in the event the answer to question 20 is "No". Question 22 is a general question regarding research topics, with subsequent probes to determine if respondents had a topic when they began the program and if the topic has remained unchanged. Question 23 continues this focus by asking about influences in the selection of the topic. Question 24 asks for a description of difficulties encountered in preparing the dissertation proposal. This is a highly salient topic, as is the probe which follows regarding the length of time spent in the program before the dissertation proposal was accepted. Most respondents reported experiencing difficulties at this stage of the program.

At this point one-third of the organizational questions have been asked. So as not to fatigue the respondents it was decided to break the sequence and use a general question (25) as a transition to the remaining attitudinal questions regarding the dissertation. It was presumed that because the questions remained focussed on the dissertation the transition would be a smooth one. The results of the pre-pilot and pilot studies indicate this assumption was correct. Question 25 asks respondents to describe a normal week of work on the dissertation. Question 26 asks about the feeling of isolation when working on the dissertation, with probes for more detail. Question 27 asks generally about distractions
before branching into specifics requiring participants to describe what happens when they become distracted, and what they do to maintain interest in the topic. These questions refer to time management, isolation, and distractions which have been described previously in the literature as indicators of procrastination behavior.

**Research Supervisor**

Question 28 is a general transition back to the organizational questions. It asks the participant’s opinion about the important characteristics of a research supervisor, before specific questions are posed regarding the qualities or characteristics considered by the participant when selecting a supervisor. Question 29 moves from the research supervisor to the formation and functioning of the participant’s committee. Because the topic of research supervisor is considered highly salient, question 30 asks specifically for a description of the participant/supervisor relationship, and the probes ask for examples. Respondents answered these questions without difficulty.

Finances are an important consideration for doctoral students so questions 31 and 32 request information on expectations concerning, and sources of, financial assistance for continuation of studies. Question 33 asks participants to describe the stages of the doctoral program they considered difficult. As a result of participant feedback during the pre-pilot study, this question was amended to probe the different stages of the program specifically. Results of the pilot study indicate that this change allowed participants to answer the question sequentially, and not miss any stages.

Question 34 begins the exploration of the sensitive topic of dropout. It asks participants if they can distinguish any difference in characteristics between those who withdraw and those who complete the program. Question 35 is a filter question which continues the topic. Participants are first asked about acquaintances who have considered withdrawing, and to describe reasons these individuals gave for their behaviour. Next, the participants are asked to describe their own situation, and compare their personal
experience with that of their acquaintances. The results of the pre-pilot and pilot studies indicate that although this was a sensitive area participants were quite willing to describe their personal experience.

In an attempt to identify factors that may affect International and Canadian students differently, participants were asked to provide their perspective of the International student’s experience, question 36. Once participants had provided their perception of the experience of international students, it was assumed they would also be willing to discuss perceived differences in the way males and females experience the doctoral program, which was the basis of Question 37. The pre-pilot and pilot studies showed that participants answered these questions readily, and without difficulty.

Question 38 requests information on conference activities in an attempt to determine if these have any effect on completion of the program. The final organizational question 39, asks participants to define original knowledge, and to describe how their research will contribute to existing knowledge.

Intent

The final group of questions 40 - 43, are structured to provide information on intent. They address participants’ initial intentions regarding future employment, length of time it would take to complete the program, and whether they intended to complete within the allotted time. Results of the pre-pilot and pilot studies indicate that participants had no difficulty responding to these questions.

The interview ends with a thank you to participants and requests them to complete an evaluation of the wording and order of the questions used. The participants are also asked to complete and return the Questionnaire (procrastination scale) within a designated time. Results from the pre-pilot and pilot studies, combined with the participant evaluations, indicate that the questions used in the interview schedule were easy to understand, adequate to address the topic, arranged in a proper order, and suitable for
collecting data to satisfy the purpose of the study. The participants in the study are knowledgeable about interview schedules and questionnaire construction and therefore their positive evaluation adds to the validity of the instrument.

The analysis and interpretation of the data collected during the pilot studies (Appendix C), indicates a similarity with that encountered in the research literature; it should therefore be adequate for drawing preliminary conclusions which might prove useful for future studies. If, however, the instrument was modified for use with a group of doctoral students different from the ones described in the unit of analysis, then further pilot testing would be necessary to determine the validity of the instrument for use in the new situation.

The Procrastination Scale

The procrastination scale was used to see if it would provide data to support certain questions in the instrument. At the close of each interview a package containing an evaluation form, a set of interview questions and a questionnaire (the procrastination scale) was left with each participant, with instructions to complete and return it in a stamped envelope addressed to the interviewer's home, within six days (Lay, 1986). Participants in the pre-pilot study complied with the time limit and fit Lay's category of low procrastinator (returned within 9 days); these results are reported previously. This was not however the case in the pilot study. Case # 5 took 28 days to return the materials while case #4, and Case #6, did not return the materials for 43 days, and then only after a follow-up phone call. These subjects fit the category of high procrastinators (greater than 9 days) suggested by Lay (1986). Part of the reason for the delay might be explained by the fact that the Christmas Holiday fell within this time period and these festivities may have taken priority. Support for this is indicated by the fact that Case # 6 recorded the lowest score on the procrastination scale. Case # 5, with the highest score was a self-reported procrastinator.

A review of the Procrastination Scale Item Statements and Matrix of Results (Appendix C), suggest differences in measures of central tendency for male and female
participants. Male respondents recorded a lower mean score and standard deviation than female respondents. If, as suggested by Tuckman (1991), a higher score indicates a greater tendency toward procrastination, then it might appear that males in this study self-reported less of a tendency than females to procrastinate. As intended, the procrastination scale provided data to support certain questions on procrastination behaviour in the interview schedule. While it is not the purpose or intention of this study to statistically analyze the results of the procrastination scale, or determine gender differences, certain observations can be made. The procrastination scale elicited responses that were different enough to be measurable, and therefore might be of interest in future studies. However, the small sample used in this study was not random, therefore not intended for statistical analysis and generalization. Also it is not used to try to provide answers to the questions, only to see if it could generate data to support the instrument.

Documentation

Multiple sources of evidence were used during data collection to help establish the construct validity and reliability of the pilot case study. These included interviews, direct observation, and student records and documentation. When applying to the doctoral program in Adult Education at the University of British Columbia applicants are required to prepare a "career letter" which describes the applicant's academic and professional background, indicates why the applicant has decided to pursue doctoral study in adult education, what research interests the applicant plans to pursue during the program, and what the applicant hopes to do after completion of the program.

The student's career letter containing stated intentions at the time of admission to the doctoral program provided a cross-check against the student's recollection of intent expressed in the interview. This information was used as corroboration to triangulate the data, thereby increasing the construct validity of the study.
The circumstances under which information was collected (i.e. audiotapes and transcripts of interviews, primary and secondary source material used for the literature review, and any documents or records collected) has been documented earlier. By inspecting this database, it is possible to establish how the study’s conclusions were derived. The developed database increases the reliability of the study and becomes a resource for future studies.

The Interview Process

Open questions were used throughout the interview to allow respondents to answer in their own words. The interviewer recorded verbatim what the respondents said in answer to the questions. Non-directive probes were used to seek clarification and elicit full responses. This open-ended format allowed respondents to give their opinions fully and with as much nuance as they were capable of. Also it allowed respondents to express themselves in language that was comfortable for them, congenial to their views, and produced quotable material which could enliven the research report.

Although the interview schedule (Appendix A) was prepared in advance of interviews to try to elicit information suggested by the literature review, the way in which questions were framed and asked dictated to some extent, the information received and the responses given. Most research, and especially qualitative research in which the researcher is considered a principal instrument, is subject to researcher bias. The subject chosen for investigation usually stems from personal interest; therefore the questions asked, and the methods of investigation used are subject to personal preference and cultural constraints even if attempts are made to reduce these to a minimum. The close association created by the in-depth interview situation means that it is rarely bias-free, and calls for self-awareness of personal assumptions and values on the part of the researcher. This became evident during the first interview when, due to inexperience, the interviewer tended to offer interpretations when the interviewee appeared to be having difficulty answering a question
fully. This coaching bias was recognized during the interview and attempts made to correct it. Bias was controlled in subsequent interviews with the researcher maintaining objective distance by adopting a friendly yet professional approach during interviews. Allowing adequate time for responses, and the appropriate use of non-directional probes, diminished the threats to reliability in subsequent interviews. Bias, when identified, was made explicit to ensure that the conclusions arrived at were those of the subjects and not the researcher. Threats to validity were minimized by ensuring that participants were asked the same questions, with the same amount of detail, and ensuring that probes were effectively used in eliciting full responses. The locations in which the interviews were held proved adequate, with minimal interruptions.

The adequacy of an instrument is assessed using the following three criteria: a) the structure of item level responses (each question); b) the potential for a demonstrated relationship with other instruments; and c) results consistent with those reported in the literature. This instrument appears to meet all three criteria.

Summary

This chapter reported on the performance of the instrument used to collect data during the pre-pilot and pilot studies. A review of the construction of questions in the interview schedule was presented to provide a comprehensive understanding of the role of this study. This review was followed by an assessment of the adequacy of the interview questions during pilot tests, the use of the procrastination scale and supporting documents, and the effectiveness of the interviewing process. Conclusions and implications arising from developing the instrument, conducting interviews, and analyzing the data collected form the basis of the following chapter.
CHAPTER 6
CONCLUSIONS AND IMPLICATIONS

The literature on factors affecting graduate students in their pursuit of the doctoral degree is sparse. One little-studied aspect of doctoral education is the high level of student attrition. Attrition rates for doctoral students are rarely published, and when they are they have a limited distribution. The reason for this is understandable when one considers that these results would indicate that on average only fifty percent of the students who begin a program actually earn doctorates. What literature exists on the topic of attrition uses a dichotomous classification, and considers students either as successes (completed the degree), or failures (withdrew). Without talking to the students, to gain an insight into their understanding of their own educational process, researchers may not fully understand the complex nature of the attrition process. By having students describe their experience during in-depth interviews, conceptual gaps in current understanding of the doctoral process are filled.

Purpose Of The Study

The primary purpose of this study was the development and field testing of an instrument designed to collect data on the ABD (All But Dissertation) phenomenon in adult education. To investigate this situation, research literature on theories and models of higher education dropout between 1970 and 1990 was analyzed, and a conceptual framework for the study developed. Constructs from two major theories of attrition/persistence were incorporated into a conceptual model which provided the theoretical framework for the study. An instrument was developed, pilot tested, and the results analyzed and interpreted. To the extent that evidence gathered using the interview schedule allows preliminary conclusions to be drawn from the data, the purposes of the study were met.
Another essential purpose of this study was to allow the researcher to develop skills in critically evaluating existing research, instrument construction and refinement, development of effective interview techniques for data collection, performing analysis on that data in an attempt to understand the dropout phenomenon, and improving research writing skills. This chapter summarizes that process, describes the limitations of the study, draws conclusions from insights gained, and determines implications for future research.

**Methods Used**

A conceptual model (Figure 5), incorporating variables from two prominent theories in the literature, provided the theoretical framework for the study. The variables included in the model provide information about ABD students which, when known, indicates a student's probability of dropping out, and suggests reasons why this occurs. These variables are fully defined in Chapter 3, and are briefly reviewed here to indicate how they might interact with one another. The position of the variables in the model depicts the longitudinal nature of dropout decisions.

**Figure 5: Conceptual Model**

Interaction among the variables, similar to that reported in the literature on traditional-age undergraduates, was indicated when applied to graduate students in this
study. That is, the background characteristics of a student were found to influence the way in which a student interacts within the institutional environment. This interaction determines the degree to which a student is satisfied with the institution; an increased level of satisfaction is reflected in an increased level of institutional commitment (Tinto, 1975) or institutional fit (Bean, 1982).

Organizational variables are indicators of the student's objective experience of his/her interaction with the institution. These are variables which the institution can control and administratively manipulate. Thus, in developing the interview questions, the largest number of sub-variables was allocated to organizational characteristics. The questions referring to environmental variables contain the second largest number of sub-variables.

Environmental variables reflect more-or-less objective assessments of the environment outside the educational institution. These factors can affect students' persistence/withdrawal decisions, and their subsequent behavior.

Attitudinal variables, by and large, represent the psychological results of interacting with an institution. These variables indicate subjective evaluations of education, educational institution, and goals, and can provide a subjective interpretation of the objective educational experience.

Intent is included as a variable because intentions are hypothesized to intervene between attitudes and behavior (Fishbein and Ajzen, 1975). In this instance, attitudes toward the academic experience and its outcome, will affect the intent to continue in the doctoral program.

The inclusion of these variables in the conceptual model, and the resulting sub-variables in the instrument, allowed a partial replication of previous research and utilized a qualitative rather than quantitative approach to data collection and analysis. The multiple case study method was selected to cover contextual conditions believed pertinent to the study of the ABD phenomenon.
Location Of Subjects

Six students currently registered in the doctoral program of the Adult Education Program Area, at the University of British Columbia, who had started their program between 1987 and 1992, were selected as the study’s subjects. This was a convenience sample chosen for a number of reasons. First, students currently enrolled in the program were readily accessible, could be easily contacted as their whereabouts were known, and were likely to agree to participate in the study. Second, as the purpose of this study was to develop and pilot test an instrument to investigate the ABD phenomenon, individuals in the doctoral program were presumed to be knowledgeable about, and willing to assist in assessing an instrument’s construction, the relevance of its constructs and wording, and the order of the questions. Third, the researcher would be able to develop effective interview techniques for data collection with participants who were friendly and forthcoming. Fourth, the researcher could select appropriate methods of analyzing the data, which could then be shared with the participants. Fifth, in order to assess the importance of the variables used in constructing the interview schedule, and to refine the instrument for use in future studies, data collection from a group of participants who could provide this information was essential. Sixth, before investigating the ABD phenomenon by undertaking a study which might make comparisons between ABDs, TABDs, and Ph.D.s, it was deemed important to emerge from the current study with an instrument that could, with minor modifications, be applicable to each of the above groups in a future study. It was presumed that participants selected for the current study would assist in assessing applicability.

The selection criteria provided a group of six participants at different stages of their doctoral program. One individual had begun the program in 1987, and had been granted an extension. Another had begun the program in 1992 but had not been admitted to candidacy at the time of interview. And one participant, an ABD when selected in September, had successfully completed the dissertation oral defence when interviewed four months later. The remaining participants had completed all the coursework, the comprehensive exams,
and the dissertation proposal, and had time remaining in their allotment of six years. Thus, they could either become graduates or terminal ABDs. Candidates selected for the pilot case studies were from the Greater Vancouver area. Their ready access to the university might indicate more of a likelihood they will complete their program than would doctoral students at a distance.

**Data Collected**

Multiple case studies incorporating in-depth interviews were deemed the best data-collection technique for two reasons. First, there was a limited population available, and second, interviews with open-ended questions allow respondents to communicate perceptions without restricting them to narrowly focused questions and simple responses. A case study protocol (Yin, 1989) was developed to guide data collection. Guidelines helped establish the construct validity and reliability of the pilot case study during data collection. The instrument consists of a 43 item interview schedule constructed by the researcher, and a 35 item Procrastination Scale (Tuckman, 1991) used with the author’s permission (Appendix A). Questions developed for the interview schedule represent the five constructs outlined in the conceptual model (page 109). The questions were derived from readings in the literature, personal observations, and reflections on previous studies. Prior to the pre-pilot study wording and order of questions were revised after review by two student researchers and the thesis research committee. The pre-pilot study enabled the researcher to improve his skills in interviewing and preliminary analysis of the data, while determining the suitability of the questions for use in the pilot study. Modifications were made to the interview schedule prior to conducting the pilot study, as a result of suggestions by the participants in the pre-pilot study. As the modifications were minor in nature, the instrument was not considered substantially changed. The results of the procrastination scale were used as an additional source of evidence to triangulate procrastinatory behavior of individual cases.
The instrument was administered during in-depth interviews in the pre-pilot study and pilot study. Interviews were tape-recorded, with permission, and verbatim transcripts prepared. The interviewees were asked to review the transcripts to ensure that what they had said had been recorded correctly.

At the completion of the pilot study all data collected were reviewed to determine if an adequate data base existed to satisfy the purpose of the study. The information provided by the participants in the pilot study was similar to that provided by the participants in the pre-pilot study. Little new information was obtained. For this reason it was decided that adequate data were available to satisfy the purpose of the study, and while conducting further interviews would produce additional data, it would be of limited utility.

Adequacy Of The Instrument

Results from the pre-pilot and pilot studies, combined with the evaluations by the participants, indicate that the questions used in the interview schedule were: adequate to address the topic; arranged in an appropriate order; easy for interviewees to understand; and suitable for collecting data to satisfy the purpose of the study. The participants in the study were knowledgeable about questionnaire construction, and their positive evaluation of the interview schedule provided corroboration for the utility of the instrument.

The adequacy of the instrument is assessed using the following three criteria: a) the structure of item level responses (each question); b) the potential for a demonstrated relationship with other instruments; and c) results consistent with those reported in the literature. The structure of item level responses were judged adequate by participants, and peer researchers' evaluations. The analysis and interpretation of the data collected using the variables in the interview schedule during the pilot studies (Appendix C), indicate a similarity with results encountered in the research literature; it should therefore be adequate for drawing preliminary conclusions which might prove useful for future studies. The instrument developed for this study appears to meet all three criteria. If, however, the
instrument were modified for future use with a group of doctoral students different from the ones described in the unit of analysis, then further pilot testing would be necessary to determine the validity of the instrument for use in the new situation.

**The Procrastination Scale**

A Procrastination Scale was used to see if it would provide data to support certain questions in the instrument developed for this study. A review of the Procrastination Scale Item Statements and Matrix of Results (Appendix C), suggests differences in measures of central tendency for male and female participants. Male respondents recorded a lower mean score and standard deviation than female respondents. When compared with Tuckman’s (1991) sample differences can also be seen. Tuckman did not report a mean score for his sample but reported a median score of 89.0. The mean score of the participants in this study was 71.6, with a median score of 70.0. If, as suggested by Tuckman (1991), a higher score indicates a greater tendency toward procrastination, then it might appear that participants in this study self-reported less of a tendency to procrastinate than the undergraduates in Tuckman’s study. While it is not the purpose or intention of this study to statistically analyze the results of the procrastination scale, or determine gender differences, certain observations can be made. The procrastination scale elicited responses that were different enough to be measurable, and therefore might be of interest in future studies. However, the sample used in this study was not random, therefore not intended for statistical analysis and generalization, also it was not used with the intention of providing answers to the research questions, but only to see if data could be generated to support the utility of the instrument.

**Documentation**

When applying to the doctoral program in Adult Education at the University of British Columbia applicants are required to prepare a *career letter* which describes the
applicant's academic and professional background. The career letter indicates why the applicant has decided to pursue doctoral study in adult education, what research interests he/she plans to pursue during the program, and what the applicant hopes to do after completion of the program.

The student's *career letter* containing stated intentions at the time of admission to the doctoral program provided a cross-check against the student's recollection of intent expressed in the interview. The *career letter* was used to see if it could provide data to support the instrument developed for this study. For example, the participants' initial intentions regarding future employment, stated in the career letter, were compared with their answers to questions about future employment, during the interview. This information proved useful as corroboration to triangulate the data, thereby increasing the *construct validity* of the study.

The database containing the multiple sources of evidence used during data collection helps to establish the construct validity and reliability of the pilot case study. By inspecting this database, it is possible to establish how the study's conclusions were derived, thus increasing the *reliability* of the study.

**Adequacy Of The Interview Process**

In scheduling times for interviews attempts were made to allow the interviewees to choose a setting that was comfortable for them. The use of an open-ended format for interview questions allowed respondents to express themselves in their own choice of words. The interviewer tape-recorded verbatim what the respondents said in answer to the questions. Non-directive probes were used to seek clarification and elicit full responses.

The close association created by in-depth interviews makes it difficult to avoid bias, and calls for self-awareness of personal assumptions and values on the part of the researcher. The way in which questions are framed and asked dictate, to some extent, the information received and the responses given. The coaching bias detected during the first
interview was controlled in subsequent interviews, with the researcher maintaining objective distance by adopting a friendly yet professional approach. Bias, when identified, was made explicit to ensure that the conclusions arrived at were those of the subjects and not the researcher. Threats to validity were minimized by ensuring that participants were all asked the same questions, with the same amount of detail, and ensuring that probes were effectively used in eliciting full responses. The locations in which the interviews were held proved adequate, with minimal interruptions.

The presentation of results of data collected in the pilot studies (Appendix C), using the interview schedule and the case study protocol, demonstrates the adequacy of the interview process for use in collecting data on ABDs.

During the process of determining the adequacy of the instrument certain preliminary findings were observed which, if confirmed by future studies, might shed light on factors that affect completion of the doctorate in adult education. While it is not the purpose of the current study to investigate these preliminary findings, they are mentioned here in the hopes that future researchers might find them interesting enough to pursue.

**Purpose Of Doctoral Study**

Results appear to indicate that students who enter the doctoral program anticipate the process will be similar to their experience in the masters degree, without due regard for the self-directed nature of doctoral study. They exhibit a poor understanding of the rigorous nature of developing knowledge, and the length of time required to complete each stage of the doctorate.

The primary motivation for pursuing the doctorate was future employment prospects; the research component of the program was of lesser importance. Future employment was a dominant theme across four of the five variables. This singular focus on the reason for pursuing the doctorate contradicts those researchers who contended that the motivation for seeking further education is *self fulfillment rather than teaching positions.* All
of the respondents in this study viewed the doctorate as the credential that would provide access to university employment.

Gender Differences

As had been anticipated from reviewing the literature it appeared that, even with the very small number of persons that were interviewed, there might very well be some gender differences. Men in the study appeared outcome-oriented, suggesting that for them completion was the most important factor. Women adopted the view that completion was important, but not enough to risk compromising other areas of their life. However, this is a variable that will require further investigation before any justifiable generalization can be made about the difference.

Financial Aid

Ability to finance studies is a universal concern among doctoral students. Some students who are unsuccessful in securing adequate funds find the burden of finances too great to bear, and withdraw from the program. Receipt of financial aid can also provide the supplementary benefit of reinforcing students' self-esteem, and, to some extent, remove the financial threat. While participants in this study were successful in obtaining financial aid, this does not appear to be the case for all doctoral students. Interviewees reported knowing of doctoral students who had experienced difficulty in securing financial assistance and suggested this might contribute to non-completion of the program. Further studies might confirm the accuracy of these claims and explore remedies for correction.

Drift

The concept of drift derived from participants' use of the word to describe what happens to students who first appear to lose momentum, then fail to complete the program. Respondents suggested that some students slowly reduce their efforts as accountability diminishes when "everyone gets busy with other pressing matters". Motivation and self-confidence decrease without support and encouragement from others. Unless there is active intervention at this point, the student is at risk of withdrawing.
"Drift" might be a stage of transition everyone encounters in the passage from one society or culture to another. A period of uncertainty about how to proceed is followed by a time of adjustment or adaptation to the new situation, with its associated changes in status and perceived role. In doctoral programs, some students interpret their new status as achieving candidacy, while others see it as reaching ABD status. While both are correct, one has a positive connotation and the other negative. The transition to candidacy may be considered a true "rite of passage". Depending on their perception of the transition some students will be able to chart a course and successfully proceed to the doctorate. Others might be unable to adapt to the transition and, rather than progress, they might flounder then drift back to a previous stage, or group, or role. If this proves to be the case, and if it is recognized as an inability to transit between one stage and another, then measures might be instituted to assist at-risk students with what is, for them, a treacherous transition.

Another possible explanation of the function of drift was suggested. Respondents indicated it might be used as a way of screening out certain students. Supervisors who decide, for whatever reason, that a doctoral student might be unsuitable for academe, may extend greater leeway to that student. As one participant described it "they allow them to soak in their own juices for awhile", anticipating that the student will first lose motivation, then momentum, then drift away. Further investigation would be warranted if this type of situation was confirmed to occur.

**Conclusions**

Three broad conclusions are suggested by the findings of this research. The first concerns the adequacy of the instrument to collect data on the All But Dissertation phenomenon and generate hypotheses. The second refers to the instrument's relationship with established instruments. The third concerns the potential of using case study methodology to investigate the factors that affect completion of the doctoral program in adult education.
The first conclusion of this research is that the instrument developed for this study is adequate for collecting data on students enrolled in adult education doctoral programs, who may or may not ultimately receive their degrees. As such, the instrument could prove useful to researchers collecting data on the ABD phenomenon. The data, when analyzed, could provide information on the most powerful determinants of completion or non-completion of adult education doctorates, and suggest what remedial action might prove effective.

The instrument also shows promise, with this small sample, as an hypothesis generating instrument. An example of this capability is demonstrated by the information generated on the concept of drift, reported earlier. If the transition to candidacy in doctoral programs is a rite of passage then, depending on the students' perception of the transition, some will successfully proceed to the doctorate, while others will succumb to drift.

An hypothesis can be suggested:

Students who perceive the transition to candidacy as *achieving candidacy* are more likely to persist to degree completion than students who perceive this transition as *reaching ABD status*.

The second conclusion of this research is that data gathered by the instrument supports data collected by other established instruments, (e.g., The Procrastination Scale). This potential for demonstrated relationships with other instruments reinforces the adequacy of this instrument for collecting data on the ABD phenomenon.

A third conclusion is that the multiple case study method is appropriate for the collection of what appears to be the most important data for identifying factors that affect completion of the doctorate in adult education. The research questions for this study address the topics of how and why ABD students arrive at the decision to withdraw. This
phenomenon and its context are not always distinguishable. Thus multiple sources of evidence were used during data collection to establish the construct validity and reliability of the pilot case studies, thereby demonstrating the appropriateness of the case study method in the collection of data on ABDs.

**Limitations**

Most research, and especially qualitative research in which the researcher is considered a principal instrument, is subject to researcher bias. This study suffers from a number of limitations, and therefore caution is required when attempting to interpret conclusions drawn from the evidence generated during data collection and analysis. The close involvement of the researcher with the interviewees, and his limited experience with in-depth interviewing techniques might have produced incomplete or inaccurate data. Bias might also have occurred on the part of the respondents who attempted to please, or deceive the interviewer. Finally, the multiple-case study, because of its intensive nature, focused on only a small number of cases and might provoke questions about the representativeness of the data collected, and whether or not they provide an adequate base for the development and answering of the research questions.

No attempt can be made to generalize findings from this study. The study was designed to develop an instrument which, after field tests to demonstrate its adequacy, would allow researchers to collect data on ABDs, in an attempt to better understand this phenomenon. These limitations must be kept in mind by any researcher attempting to add to or replicate this study.

**Implications**

The conclusions drawn in this study are, in a sense, only a beginning. If the conclusions about the adequacy of the instrument to collect data on ABDs in adult education, and the suitability of the multiple case study method to cover the contextual conditions pertinent to the study, can be applied to a wider population of ABDs then
progress toward an understanding of the phenomenon may result. In future studies data collected using this instrument might, when analyzed, provide researchers with information on determinants of completion or non-completion of the doctorate. Thus, it could lead to the development of remedial actions to counteract the current high rate of attrition of doctoral students in adult education. Since completion rates of students entering a doctoral program have remained more-or-less constant over time, decisions made as a result of such research might affect the future of doctoral education.

Future Research

Little research has been conducted on attrition from doctoral programs in adult education; this suggests a need for further research. The current study has contributed a data gathering method which might prove useful in investigating the ABD phenomenon. It suggests areas of interest which require further investigation to determine if they can provide reasons for the high rate of attrition. This might prove helpful in developing methods to determine why nearly one-half of all doctoral students fail to graduate due to non-completion of their final project, the dissertation. This study has concentrated primarily on students currently enrolled in the doctoral program in adult education, and only addresses their particular situation. In order to determine if the instrument can contribute to the improvement of the process of studying the ABD phenomenon it should be tested with a group who are no longer in the program, the TABDs (Terminal ABDs).

A future study which pilot tests the interview schedule with a group of TABDs, could determine if the instrument, with modest modifications (i.e. change present tense wording to past tense), is as appropriate for TABDs as it was for the ABDs interviewed in this study. Also, further pilot testing might be done with Ph.D.s to see if data collected supports that obtained from the participant in this study who had completed the dissertation oral defence two weeks prior to the interview. If so, a study could then be designed to determine whether differences exist among ABDs and TABDs and Ph.D.s. Collecting and analyzing
data on each of these groups, would involve interviewing a number of students in the program and an equal number of those who have dropped out, and making comparisons with students who have successfully completed the program. Only through this type of comparison can the importance of each of the variables in the instrument accurately be assessed.

In summary, further research would provide a more complete understanding of the effectiveness of the instrument developed to collect data on factors that enhance or impede progress to the doctorate in adult education. Students who, for whatever reason, have withdrawn from the doctoral program and become terminal ABD's, have not had their voices heard in this study. Their experience, told in their own words, would make a valuable contribution to the emerging body of qualitative data, and provide a more complete picture of the ABD phenomenon. Also, those who have successfully completed the program and been awarded the doctorate might contribute valuable insights into how this was achieved. Appropriate objectives for future research might be 1) To study the factors that affect the completion of the doctoral degree for ABDs, TABDs, and Ph.D.s, and 2) if differences are found to exist, to attempt to identify the factors that appear to contribute to the observed differences.

Finally, there is an ongoing need to develop a more comprehensive understanding of student perceptions of the doctoral program. Only through understanding can change begin.
REFERENCES


APPENDIX A
Pilot Case Study Protocol

Overview

The purpose of this study is to develop and field test an instrument that can be used to collect data on ABDs (all but dissertation) in adult education and other fields. Investigations will determine which personal and contextual factors influence the decision, whether consciously or unconsciously, to withdraw from a doctoral program. A multiple case study methodology, using in-depth interviews and a brief questionnaire, will be utilized to investigate how and why ABD students arrive at the decision to discontinue the doctoral program.

The Pilot Case Study

A pilot case study is the final preparation for data collection in a case study. A pilot test will be used to refine data collection plans pertaining both to content of the data and procedures to be followed. The pilot study will be a multiple-case study (N = 6), with participants selected from the doctoral cohorts in adult education for the years 1987, 1988, 1989, 1990, and 1991. There is a limited number of potential participants (N = 15) to draw from, so all fifteen students will be contacted by letter to request their participation. Pilot testing will also allow for assessment of the interviewer’s abilities to conduct interviews, to assess the usefulness of the type and order of questions, to test the methods of recording and transcribing data, and to assess measures used to diminish threats to reliability and validity.

Interviews

In-depth interviews are deemed the best data-collecting technique for the proposed research because an interview with open-ended questions allows respondents to communicate perceptions without restricting them to narrowly focused questions and simple responses. An interview schedule containing the questions to be asked of participants is
included in Appendix A. The interviews will be relaxed, empathic and flexible. This is not to suggest that they will be conducted in a casual and unsystematic manner. All interviewees will be asked a given set of questions, though the order may differ from one interview to the next. Probes will be used to obtain full answers. All probes will be non-directive so as to avoid implying or suggesting a particular answer or direction of answering. This will encourage participants who are currently going through the process to reflect on their experiences. As the data are collected and transcribed the narratives will be shared with the interviewees and reviewed by them for accuracy. If reflection on their responses brings about changes in the narrative, the process will be repeated.

Each interview will be taped then transcribed verbatim within two weeks of the interview. Notes about the interview and interviewee will be recorded immediately after each interview, and supplemented during transcription if an idea is triggered by listening to the tapes. During the interview and transcription process, participant responses will be noted if they appear either especially significant, or similar to responses of previous interviewees.

Reliability and Validity

The following considerations during data collection will help to establish the construct validity and reliability of the pilot case study. (1) Multiple sources of evidence will be used including interviews, direct observation and results of previous studies. The student’s career letter will disclose stated intentions at the time of admission to the doctoral program and will provide a cross-check against the students recollection of intent expressed in the interview. Information thus collected will be used as corroboration to triangulate the data, thereby increasing the construct validity of the study. (2) A case study data base containing the information collected will be developed as a separate entity; this should not be confused with the pilot case report. The circumstances under which the information was collected will be documented (i.e. audiotapes and transcripts of interviews, primary and
secondary source material used for the literature review, and any documents or records collected). By inspecting this data base interested parties will be able to establish how the study's conclusions were derived. The developed data base will increase the reliability of the study and will become a resource for future studies. (3) The maintenance of a chain of evidence will increase the reliability of the information in the pilot case study, enabling the reader to follow the derivation of evidence from initial research questions to ultimate conclusions. The initial questions will be reflected in the content of the protocol and the specific procedures which direct how the data are to be managed and conclusions reported in the pilot case report, thus ensuring quality control during the data collection process. The tapes and transcripts of the interviews will be reviewed by an individual external to the investigation for possible bias due to interviewer error. Bias may be created by the introduction of the interviewer's own comments, ideas, or suggested answers. In addition the interviewer's non-verbal communication, in the form of expressions or gestures such as movement of the eyebrows, tilting of the head, smiling or frowning, may be understood by the interviewee as indications of approval or disapproval. These forms of bias will not be apparent in the tapes or transcripts. The interviewer must be aware of these sources of bias and avoid them by using a nondirective interviewing technique and leaving it entirely up to the interviewee to provide answers to the questions.

Case Study Questions

The case study questions are of two types: those posed to the investigator as reminders of the information to be collected and why (case questions); and those asked of the interviewees (interview questions). The case questions for this study are: What are the personal and contextual factors influencing the decision to withdraw from a doctoral program? How do ABDs arrive at the decision to disengage? How do ABD students perceive their situation? The interview questions which the subjects will be asked are listed in the Interview Schedule in Appendix A.
Procedures

A pilot case study will be used to collect, analyze and report findings in accordance with the research design previously outlined. Data will be gathered from students \((N = 6)\) in the doctoral program of adult education using interviews, questionnaire and documentation. The following procedures will be carried out:

- subjects contacted and times arranged for interviews
- transcription services located and confirmed
- resources gathered for the interviews, including a tape recorder with an external microphone and extra cassette tapes, interview schedule, paper and pens.
- a questionnaire with a stamped, addressed envelope to be left with each subject at the conclusion of the interview session, with a request to mail the completed form to the investigator within six days.

Reports From the Pilot Cases

Reports from the pilot cases will address what has been learned in terms of research design and field procedures. The reports from the initial pre-pilot cases \((N = 3)\) will indicate any necessary modifications for the subsequent pilot cases \((N = 3)\). Provision will be made for interviewees to review the reports for content accuracy.
APPENDIX A

INTERVIEW SCHEDULE
(Questions for Pilot Case Study)

INTRODUCTION

Thank you for agreeing to this interview. As was explained in the consent form you signed, the purpose of this study is to explore the factors that affect the timely completion of the doctorate in Adult Education, by interviewing people who are going through the process.

There are questions about your academic background, your work and family responsibilities, and finances related to your studies. There are also questions about your experience with the ADED program area and the University of B.C. I will also ask about your future plans.

I want to reassure you of the confidentiality of your responses. Responses will be coded so that your identity will not be known. The tape-recordings and transcripts of this interview will remain in my database and will not be made available to faculty or staff of the ADED program area or the University of B.C.

Do you have any questions before we begin?

1) I will start by asking why you chose UBC to do your doctorate?

2) Did you know any ADED faculty before you registered?
   Probe: Did you know them by reputation or personal contact?
   Any ADED students?
   Any ADED graduates?

3) What type of master's degree did you have when you started the program? From which institution and department?

4) How long did it take you to complete your masters? How would you describe your experience of the masters program?

5) Tell me about starting your doctoral program.
   Probe: Why did you enroll as a doctoral student?

I would like to now discuss your work, family and financial responsibilities.

6) Are you currently employed?
   (if answer is No go to question # 9)

   Probe: Please describe your work role.
   What are your specific duties?
   Do you use any ADED practices? Which ones?

7) Is completion of your dissertation necessary for advancement or successful continuation in your present employment?
8) Are there differences in your decision making style at work as opposed to other areas of your life? Please describe them.

9) If not currently employed, what kind of work would you like to be doing?
   Probe: Why? Does this require a doctorate?

I would now like to discuss your home and family responsibilities.

10) Please describe your major family responsibilities.

11) To what extent do your "significant others" accept the sacrifices of your doctorate?
   Probe: Do they allow you time and space to concentrate on your studies?
   Are they interested in your studies?

12) Have your studies caused friction in your home life? If yes, can you give an example?
   Probe: How do you deal with this when it happens?

Some people report that finances are a factor in the doctorate:

13) What was your financial situation when you began the program?

14) How would you compare your financial situation with other students in your program?

15) Do you see utility in the doctoral degree?
   Probe: Please explain.

16) How do you view the future employment prospects for adult educators with a doctorate?

I want you now to think back to when you were doing your coursework for your doctorate.

17) When papers were due for your courses, how did you organize your time?
   Probe: Did you establish a schedule that would allow you to complete on time or did you put it off until the last minute? Or both?

18) Do academic tasks take longer to complete than you expect?

19) Did you ever withdraw from a course in university? Why?

So that I can compare your experience with others in the program I would now like to ask you some questions about your experience of the doctoral process.
20) Do you get together with other doctoral students?
   Probe: How do you view their present situation?
   Do you exchange ideas?
   Do you support one another? Please describe this.

21) Do you think that this kind of group is helpful?
   Probe: In what way?

22) Do you have a research topic?
   Probe: Did you have a research topic when you started?
   Still the same one?

23) How did you choose your topic?
   Probe: Was your choice influenced by anyone?

24) What was the most difficult part of preparing your dissertation proposal?
   Probe: How long had you been in the program when your dissertation proposal was accepted?

25) Describe a normal week of work on your dissertation?
   Probe: How much time per week do you devote to your dissertation?

26) Some people describe the process of working on the dissertation as a lonely process or one where they feel isolated. What has your experience been?

27) Are you often distracted by other, more "interesting" things when you try to get to work on your dissertation?
   Probe: Can you describe what happens?
   How do you maintain interest in your topic?

28) In your opinion what is the most important quality or characteristic in a research supervisor?
   Probe: What were the most important considerations in choosing yours?

29) How did you select your research committee?
   Probe: How have they functioned as a committee?

30) Describe your relationship with your research supervisor.
   Probe: Can you be more specific?
   Can you give me an example?
   Why do you think that is?

31) Did you expect that your research supervisor would assist you to pursue funding?
   What happened? Was your supervisor helpful in this regard? Did you try?

32) What were the sources of financial assistance for your doctorate?
   Probe: Were you able to obtain a fellowship, or become a teaching assistant?

33) In your opinion what stage of the doctoral program has been the most difficult?
   Probe: Could this be any different? How was the coursework?
   How was the comprehensive exam?
   Have you found that others have the same difficulty?
34) During your time in the doctoral program you have seen people that complete and those that don’t - what makes these two groups different from each other?
   Probe: Would you have been able to predict this?

35) Have you known anyone on the point of giving up on the doctorate?
   Probe: What things did they suggest were bothering them? What did they do? Do you think that was the right choice? Have you ever felt like giving up on your program? Can you describe that for me?

36) You have studied with people from a number of different countries. How do you view their experience of the doctoral program?
   Probe: What part do you think background and culture play?
   Anything else?

37) Do you think there is a difference in the way men and women experience the doctoral program? Can you describe this?

38) Have you attended one or more conferences to present papers on your research? On other topics?
   Probe: How often?
   Have you been encouraged to do this?
   By whom?

39) Describe how your results will contribute to the existing body of knowledge?
   Probe: How would you describe original knowledge?
   Do you feel that your research will be accepted as original?

40) When you embarked on your doctoral program, what type of position did you consider you would obtain upon completion?
   Probe: And now? Why?

41) When did you expect to complete your dissertation at the time you began?
   Probe: And now? Why?

42) Do you think you will complete in time?
   Probe: If not, what will you do?

43) Would you agree to let me review the career letter you submitted in your application to the doctoral program?

Those are all the questions I have for now. Do you have any questions or last comments? (Record any questions or comments offered)

Before I leave, I will give you a short questionnaire to complete at your convenience. Please mail it back to me in the stamped addressed envelope by (Specify date here), which is six days from now. (The envelope will be directed to my home address to ensure that it will contain a return postmark). Thank you for your participation and the information you have provided. When the interview is transcribed I will contact you again, and ask you to review the transcript for accuracy. I would also value your feedback on the questions used in this interview. I will leave a copy of the questions, and a comment sheet with you. Please review the questions and mail your comments to me when you return the questionnaire.
COMMENTS ON INTERVIEW QUESTIONS

A number of factors affect progress to completion of the doctorate in Adult Education; some facilitate progress, while others impede it. The purpose of this study is to explore these factors. I need to know your views of the questions asked in the interview. Please review the attached schedule of interview questions, and provide me with your comments. Return this form in the same envelope as the questionnaire.

1) In your opinion, were the questions included in the interview appropriate to the topic under investigation?

2) Were the questions worded in a way that was easy to understand?

3) Were there other questions you think should have been asked? If so, please describe.

4) In your opinion, were any areas missed? If so please indicate.

Thank you for your participation in this study. Should you have any concerns or would like to discuss the study, please call Garnet Grosjean at 377-8155.
INTERVIEW SCHEDULE
(Abridged for participant review and comments)

1) Why did you choose to do your doctorate at UBC?

2) Did you know any ADED faculty before you registered? Any ADED students? Any ADED graduates? How well?

3) What type of master's degree did you have when you started the program? From which institution and department?

4) How long did it take you to complete your masters? How would you describe your experience of the masters program?

5) Tell me about starting your doctoral program. Why did you enroll as a doctoral student?

6) Are you currently employed? If answer is No skip to question # 9. If answer is Yes: Please describe your work role.

7) Is completion of your dissertation necessary for advancement or successful continuation in your present employment?

8) Is there a difference in your decision making style at work in relation to other areas of your life?

9) What kind of work would you like to be doing? Why? Is a doctorate required?

10) Please describe your major family responsibilities.

11) To what extent do your "significant others" accept the sacrifices of your doctorate? Do they allow you time and space to concentrate on your studies? Are they interested in your studies?

12) Have your studies caused friction in your home life? If yes, can you give an example? How do you deal with this when it happens?

13) What was your financial situation when you began the program?

14) How would you compare your financial situation with other students in your program?

15) Do you see utility in the doctoral degree?

16) How do you view the future employment prospects for adult educators with a doctorate?

17) When papers were due for your courses, how did you organize your time? Did you establish a schedule that would allow you to complete on time or did you put it off until the last minute? Or both?

18) Do academic tasks take longer to complete than you expect?

19) Did you ever withdraw from a course in university? Why?

20) Do you get together with other doctoral students? How do you view their present situation? Do you exchange ideas? Do you support one another?

21) Do you think that this kind of group is helpful?
22) Do you have a research topic? Did you have a research topic when you started? Still the same one?

23) How did you choose your topic? Was your choice influenced by anyone?

24) What was the most difficult part of preparing your dissertation proposal? How long had you been in the program when your dissertation proposal was accepted?

25) Describe a normal week of work on your dissertation?

26) Some people describe the process of working on the dissertation as a lonely process or one where they feel isolated. What has your experience been?

27) Are you often distracted by other, more "interesting" things when you try to get to work on your dissertation?

28) In your opinion what is the most important quality or characteristic in a research supervisor?

29) How did you select your research committee?

30) Describe your relationship with your research supervisor.

31) Did you expect that your research supervisor would assist you to pursue funding?

32) What were the sources of financial assistance for your doctorate?

33) In your opinion what stage of the doctoral program has been the most difficult?

34) During your time in the doctoral program you have seen people that complete and those that don’t - what makes them different?

35) Have you known anyone on the point of giving up on the doctorate? Why? Have you ever felt like giving up? Please describe that for me.

36) You have studied with people from a number of different countries. How do you view their experience of the doctoral program?

37) Do you think there is a difference in the way men and women experience the doctoral program? Describe.

38) Have you attended one or more conferences to present papers on your research? On other topics?

39) Describe how your results will contribute to the existing body of knowledge?

40) When you embarked on your doctoral program, what type of position did you consider you would obtain upon completion?

41) When did you expect to complete your dissertation at the time you began?

42) Do you think you will complete in time?

43) Would you agree to let me review the career letter you submitted in your application to the doctoral program?
APPENDIX B

PRE-PILOT STUDY REPORT

A summary of each pre-pilot interview follows. Each is reported as an individual case.

Case # 1: Male.

The interview took place in the living room of the subject's home, and was conducted at the dining room table with the interviewer and interviewee seated opposite each another. The participant's spouse was present in the home during the interview but worked in another room. Since she could not overhear, it is assumed that the participant did not answer sensitive questions in a guarded way. There is however no way to test this assumption.

At the time of the interview the subject had been advanced to candidacy, having completed all coursework and comprehensive exams. His proposal had been accepted and he was researching and writing-up parts of his dissertation. He entered the doctoral program with a masters degree, which he had completed in twenty-one months. He is not currently employed, has a supportive spouse, and has been funded by scholarships from UBC for the past three years. His spouse works so he does not feel constrained by finances.

He considers the utility of the doctoral degree to be its role as a requirement for the university teaching job he wants on completion. He is somewhat concerned that his gender and ethnic background may be impediments to achieving his goal. He does not find writing easy and feels there is not enough opportunity to improve writing by sharing drafts with peers and faculty. He enjoyed the structure provided by the required courses in the first year. He has not withdrawn from a course in the doctoral program but has changed status to auditor in "a couple of courses".
The subject believes he has progressed faster than the rest of his cohort, and suggests the others are "dragging their feet somewhat". He has a good relationship with his research supervisor and committee, but suggests this is not so for all students in the department as faculty may devote more attention to those students perceived as competent. He feels that students should get together and talk about this as it may affect the timely progress of some students.

His research topic changed from the initial topic, but he had narrowed it down and confirmed it by the end of the first year. The dissertation proposal was accepted after he had spent a year and a half in the program. Narrowing the topic was the most difficult part of his program to date. He feels that the time-to-completion of the proposal depends somewhat on the requirements imposed by the research supervisor.

The subject considers the two most important characteristics in a research supervisor to be scholarship, and a position in the field which commands respect. These must be complemented by an understanding of what students need at different stages of their program. This respondent sets a regular weekly schedule when working on his dissertation and tries to work Monday to Friday from 0900 to 1600. He admits that he can be easily distracted so he makes a conscious effort to go to a designated work area at specific times in order to keep on track. This subject does not feel isolated as he spends a lot of time on campus, but he does not use the facilities, other than the libraries. He selected his research supervisor first; they selected the specialist in the research field together, and he selected the third member of his committee himself. His supervisor is a good chairman so meetings are productive; he has been helpful in suggesting sources of funding and assisting in formulating applications. The subject considers his research supervisor more of a mentor than a supervisor.

The subject experienced a difficult period adjusting to the length of time and amount of work involved in a doctoral program, compared to what he originally expected. He suggests strongly that this should be made clear to students and that help should be provided
in setting realistic time parameters for each stage of the program. He thinks that people drop out for one of two reasons: either they are not realistic about the length of time needed to complete each stage of the program, or they become disillusioned with doctoral study, (it's not what they thought it would be) and decide it is not for them. Other students he has talked to have mentioned lack of support, inability to deal with adversity, a tendency to drift and lose contact with the supervisor unless the supervisor initiates contact, a tendency to not discuss problems when they first arise , and differential treatment by faculty of some students. This subject has seen some students lose confidence in their abilities when assigned a lower mark than they felt they deserved. Personally he has felt discouraged and exhausted but never to the point of dropping out.

The subject feels that the curriculum is "North-Americo-centric" and does not include the international aspects of adult education. This makes it difficult for international students and restricts the learning opportunities of Canadian students, who could learn from their international colleagues. He suggests that a measure of "groupthink" is developing in the adult education faculty, and there isn't a culture of truly committed intellectual activity, and these are weaknesses of the program. This respondent thinks men's and women's experience of the doctoral program is different, with women feeling that some advisors do not appear as sympathetic or encouraging as they would like. The subject attends conferences twice a year and finds them an invaluable part of his program. They are a good chance to meet people and present work. He feels that he will successfully complete and defend his dissertation, and graduate within the time allotted. His score on the procrastination scale was 50.7%.

Case #2: Male.

The interview took place in room #5, at the Adult Education Research Centre (AERC). The interview was conducted at a table with the interviewer and interviewee
seated opposite one another. There was no one else present during the interview and there were no interruptions.

At the time of the interview the subject was advanced to candidacy, having completed all coursework and comprehensive exams. His proposal had been accepted and he was completing revisions to his dissertation. He began the doctoral program with a masters degree, which he completed in 18 months. He is employed part time, has a supportive spouse and has been funded by scholarships from UBC for three of the past four years. His spouse is employed and he does not feel constrained by finances. He sees the utility of the doctoral degree as an essential in getting a well paying job, with increased respect for it as "a top credential". He feels there will also be increased respect from his peers. His goal is to find employment in an academic institution as a lecturer or professor, as well as doing some consulting. Major family responsibilities (aside from parenting) are taken care of by his spouse while he studies.

He describes the writing of the dissertation as a lonely time. A time of feeling isolated, and "little interaction with peers". He describes himself as goal-oriented, and not easily distracted by other social and personal issues. By developing a weekly routine, and sticking to it, he was able to stay focused. He set Monday to Friday, 0830 to 1630, as his regular work schedule for dissertation research and write up. He sees future employment prospects as not very good in North America. He has never withdrawn from a course during his time in university. During his program he has frequently associated with other doctoral students on campus, both for support and to share ideas. He feels that peer support is an important part of the program, and suggests "it is therapeutic" to share experiences with peers, and provide mutual support during times of need. This respondent feels that international students, who may not have their families with them, need such "peer support and comradeship".

His original research topic was changed as it was deemed by his committee "not to be an area of great interest". He spoke at length of the detrimental effects of "politics" on his
committee, which resulted in committee members not fully cooperating with each other. He describes this time, and its effect on him, as "the most painful experience he went through" and "one that he will never forget".

The most important characteristic of a research supervisor, according to this respondent, is a commitment to spending time with advisees, and being accessible. If the supervisor is going to be absent for a period of time someone else, (another committee member) should be appointed to take his/her place so the student can count on someone being available to help them. He suggests strongly that the research supervisor should set clear guidelines and instructions as to how the research should progress. He feels that supervisors should negotiate time frames with students and impose deadlines for completion of each stage. If this were done he suggests more students would complete in time and there would be less chance of drifting away, as he has seen some friends and colleagues do. The negotiation of time frames then becomes a "contract" between the supervisor and the student. He reports having a good relationship with his supervisor. He feels supervisors should keep informed of what financial resources might be available for their students, and make "concerted efforts" to help them access funding.

Researching an acceptable topic for his proposal was described as one of the most difficult parts of the program. He likened it to "students being thrown into the wilderness and expected to find some kind of guidance from somewhere" to choose an acceptable topic. He suggests that focusing on a suitable topic should begin in the first year, and that supervisors should suggest possible areas for students to research and explore. However, he noted that this is not a universal problem. Based on their background and interests some students know when they start the program what they want to do, which might be an extension of their current work. These students should be encouraged and "introduced to people who can help them".

He suggests that the difference between those who complete and those who don't has to do with level of motivation. He feels that financial concerns only become a
consideration if students "continue to drag on". He recounted examples of acquaintances who stayed in a program as long as the scholarship money was there, but as soon as the funding ended they dropped out. He suggests that there is a tendency to drift as time in the program progresses, and cites the stress of research and lack of support from supervisors as two of the causes. When this happens students become discouraged and lose confidence and motivation. He suggests some faculty members are more sensitive to this than others.

He thinks men's and women's experience of the program is different. He cites an incidence of lack of gender sensitivity, specifically by a female faculty member to male doctoral students, especially international students, in the form of the imposition of a personal ideology on them. He suggests strongly that personal ideologies should not be imposed on students by faculty. He indicates there is a strong emphasis in the department on women's issues, and a complete absence of emphasis on men's issues, creating an imbalance and a resulting sense of frustration in both female and male students. He mentions also that certain students appear to be given preferential treatment. This occurs mostly with male faculty and male students.

The subject has attended conferences each year for four years to present papers. He finds the contact with colleagues to be valuable, and suggests that students utilize university assistance and present segments of their work as they go along. He is confident he will complete his program and graduate within the time allotted, and attributes his progress through the stages to establishing a time frame and negotiating deadlines with his research supervisor. He plotted the time frames on an activity chart which he put up on a wall at home to keep him motivated. Having a supervisor who was willing to re-adjust those deadlines when it became evident that the subject had been overly optimistic, certainly helped him progress. His score on the procrastination scale was 44.3%.
Case # 3: Female.

The interview took place in room #5, at AERC. The interview was conducted at a table with the interviewer and interviewee seated opposite one another. There was no one else present during the interview and no disturbances. The interviewee declined the offer of a break mid-way through the interview so the interview was conducted at one sitting.

At the time of the interview the subject was advanced to candidacy, having completed all coursework and comprehensive exams. Her proposal had been accepted and she was researching and writing up parts of her dissertation. She began the doctoral program with a master of arts degree, which she had completed in 17 months. She is not currently employed, and has a supportive spouse. She has been funded by a scholarship for the last four years and has just had it extended. Her spouse works full time so she does not feel constrained by finances. She views the utility of the degree as a way of obtaining promotion and increased respect from people, especially if the degree is obtained from a good institution. The major family responsibilities, (other than parenting) are taken care of by her spouse while she studies. She feels that the prospects for employment in Canada are limited and that she may be perceived as too young for a senior position. She says that "maturity" is an important consideration in hiring for these positions. She would like to pursue employment in an educational institution, using applied rather than theoretical aspects, when she completes the program. She withdrew from a course when she found that it was not a required course, to devote more time to her family situation.

This respondent reports feeling isolated from other students in her program and spends much of her time working at home. She would like to see this change but does not know how to schedule the time. She has changed her research topic twice. She lost interest in the first topic, and the second one was abandoned when she discovered that she would be unable to carry out that type of research in her home country. She then researched her current topic and prepared her proposal which was accepted. She has a good relationship with her research supervisor, but has had difficulty with one committee member and had to
recruit an additional committee member to compensate. She feels she has "lost touch" with the department because she spends more time outside campus. She suggests that there should be a way for students, like herself, to get together to share their experiences and support one another. Another important part of this would be to share information on faculty, and students' experience with them.

In her estimation the most important qualities in a research supervisor are that they be "supporting, and encouraging", and accessible ("have time to see you for 5 minutes when you need it"). She feels that research supervisors should be more "attentive to opportunities" for funding for their advisees. She referred to her experience as an example. When her scholarship was discontinued in the middle of the program, her advisor was no help. It was left to her to negotiate funding. She mentioned that others have had similar experiences, and suggests it is part of the supervisor's responsibility to assist the student to complete the program.

The most difficult and stressful part of her program was the comprehensive exam. She suggests that a defense of the proposal would be more appropriate than a comprehensive exam. She had been in the program for more than three years when her proposal was accepted. A difficulty encountered during the preparation of the proposal was the selection of methodology prior to the theoretical framework. She was more concerned with practical application, than theory, and this caused difficulties with her committee. She expressed the feeling that she was "out of place". Her perception was that she was a "quantitative individual", and the department (faculty and curriculum) were "very qualitative". She often felt "misplaced" in classroom discussions because of this.

While she does not know anyone in the doctoral program who has dropped out, she does know of an individual who has received extensions beyond the six year time limit and still has not completed. She thinks there is a difference in people who complete and those that drop out, and it might relate to how they are treated. While there is active acceptance of international students into the doctoral program, she feels there is a lack of willingness to
"look beyond the local situation". Students should be regarded as "individuals with traditions", she says, not as members of a group. In her estimation, locals and international students are treated differently in the department. She suggests that men’s and women’s experience in the doctoral program is different. This subject suggests that some women in the program create problems because they "take a certain feminist stance" on things the subject considers trivial. She found that the extent of "political correctness" in the course discussions was not beneficial. She recounted a disturbing incident where there was an attempt to coerce her into supporting a certain position; she found this offensive.

She has not attended any conferences, or done any writing that was not required, as this is "not a priority for her". When she began the program she thought she would complete it in three years. After the first year she revised that to four years. As a result of her proposal taking longer than she anticipated, and having now completed her fourth year, she has revised her schedule again. She feels she will complete the program but is not suggesting a definite time frame. If her scholarship funding ends she feels she can afford the financial commitment required to complete the program. Her score on the procrastination scale was 57.1%.

PILOT STUDY REPORT

In-depth interviews were conducted with each of the pilot study participants (N =3), and a summary of these follows. For purposes of reporting each interview is presented as an individual case.

Case # 4: Male .

The interview took place in the interviewee’s office, with the interviewer and interviewee seated facing one another, with no table between them. There was no-one else present during the interview, and there was a telephone interruption, reported above.
At the time of the interview this subject had recently completed all the requirements, and been awarded his doctorate. As such, this case provided a unique opportunity for the individual to reflect on the doctoral program from admission to completion. He began the doctoral program in 1988 with a masters degree, which he completed over five years. He is currently employed. He was funded by a student loan and teaching assistantship when he began the program. Subsequent years were funded by a SSHRCC Fellowship, a UGF, and research funding. His spouse is employed, and he does not feel constrained by finances. He suggests the doctoral degree increases the scope of future jobs, as well as a sense of personal development and "socialization into academic disciplines". He reports a difference in decision making style, with the "time-frame" compressed in the social situation of work, and not in other areas of his life. His spouse is supportive, and interested in his studies "in a general way". He reports that his studies have caused friction in his homelife at certain times of the year, usually around "domestic deadlines", and the best way to deal with this was to "accommodate" the domestic situation. Family responsibilities are shared with his spouse.

This participant views the doctorate as an "overqualification" for some areas of general employment, but an essential for any university positions. He felt it was difficult to predict future employment possibilities in adult education. He withdrew from a course as an undergraduate because of the size of the class. During his program he associated with other doctoral students during the residency, and after that "lost track" of most of them. He indicated that others in his cohort did much the same thing, and "drifted away". He suggested however, that some kind of forum where doctoral students could get together would be beneficial to those having difficulty staying focused. He found that his research project provided that focus, and prevented feeling isolated.

His original research topic remained unchanged, the problem statement however, changed during the program. He chose his topic after reviewing the literature. The most difficult part of the dissertation proposal was working through the concepts and theories. For that reason his dissertation proposal was not accepted until his fifth year. He was able
to establish a schedule while working on the dissertation where he would work in blocks of three to four hours at a time. His wife worked "regular hours" during the day so he was able to dedicate time and space to his dissertation. His "best chapter" took one and one-half weeks of concentrated work to complete.

This subject was able to minimize distractions while working on the dissertation writing, and acknowledged that fieldwork and travel associated with organizing and collecting data to provide distractions. He expressed no difficulty in maintaining interest in his topic. He referred to being "mono-maniacle" about his topic as he felt that it was "an important topic" that "needed to be addressed".

A research supervisor should have a blend of qualities, according to this participant, which include a "perceptiveness" of what the student is trying to accomplish, and the "diplomacy" to know when "to take over". He selected his research supervisor based on an "established rapport", and together they selected the remaining committee members. This selection was based on recruiting members with interest and expertise in the research field, one of which was a strong methodologist. They have functioned very well as a committee. This subject enjoys the rapport established with his research supervisor, which includes frequent informal discussions about research other than his dissertation. His supervisor assisted in the pursuit of funding and was helpful in this subject obtaining funding to enable him to complete.

In terms of the stages of the doctoral program, he suggested that two stages provided unique difficulties. The first stage difficulties encompassed the first "couple of years", especially the first year with adjusting to a new environment and coursework. The second stage difficulties arose when he had to "grapple with the theory" on how to analyze the data. He had no difficulty with the "coursework itself", and suggested that the comprehensive exam was not too difficult, and drew on a wide range of topics.

This subject suggests that the difference in those that complete and those that drop out can be attributed to differences in "will, drive, and commitment", as primary
characteristics, with conditions of funding, and personal commitments as secondary considerations. He has known people who dropped out at the end of their educational leave when they saw a discrepancy in the "opportunity costs" of continuing. He suggests that international students that he knows come from an "academic/professional milieu", with good funding and the "expectation" that they will do well. He observes that women and men experience the program differently for reasons that vary from the proportion of male and female faculty, to changes in the number of females coming into the program with backgrounds in the "health care" field. He feels their experience is different, but does not attribute any difference to "repercussions from a chilly climate".

He has attended conferences yearly to present his research. He asserts that he "likes to speak to a captive audience", but prefers to make presentations as part of a symposium because of the collegial support this provides. He has been encouraged to attend by his supervisor and other department faculty members. This subject suggests that his research will contribute to the field by providing a "remedy to approach", and describes original knowledge as an "innovative or more appropriate approach" to the field of research. When this subject began the doctoral program he estimated that he would complete within five years, in fact it took the full six years for him to complete.

His score on the procrastination scale was 49.3%.

Case # 5: Female.

The interview took place in the living room of the interviewee's home. The interview was conducted with the interviewer and interviewee facing each other. The interviewee's son was present in the house, but asleep in another room so there were no disturbances.

At the time of the interview she had been advanced to candidacy, having completed all coursework and comprehensive exams. Her proposal had been accepted and she was currently writing chapters of her dissertation. She began the doctoral program with a
Master of Arts degree, which she had completed in fifteen months. She is occasionally employed as a university tutor, and as an examination marker. When the finances are severely constrained the needs of her son become a higher priority than her dissertation. Her major family responsibilities centre around the care and upbringing of her son, and as such her schedule of work on the dissertation usually involves devoting what time is available while he is asleep. She suggests that she can keep up an intense pace for about two weeks then has to take time away or she becomes ill.

She has received a SSHRCC fellowship, a student loan and whatever funding she can derive from part-time work. She views the utility of the doctorate as "the key to getting a job", as well as a way to develop "theoretical interests". She does not view the employment prospects in North America as very good.

This subject had no difficulty with the courses, although she admits to procrastinating, and not completing assignments on time. She did however suggest that the course content could use revision. She admitted to going through a period of becoming fixated on her academic work, to the extent that she couldn't do it, but she couldn't do anything else either. She has attempted to withdraw from a course in university, but had to "suffer the consequences" because she waited too long. She does not associate with other doctoral students, on or off campus, and admits to feeling isolated and lacking in "peer support". The students she once associated with have moved away, and although she suggests it is important for students to have a group of peers they can go to for support, she has not done anything to address this. Her research topic has changed twice. The current topic has gone through revisions. The first approach proved to be too large in scope, and it took considerable research before she was able to settle on the topic that would form her dissertation proposal, and be acceptable to her advisor and committee. The most difficult part of the proposal preparation was "putting it in the shape they want you to put it in", which she suggested "confuses research with a methodological framework". She had been in the program for three years when her proposal was accepted.
This participant suggests that among the qualities or characteristics important in a research supervisor are "patience", and a "degree of fit" with the student. She further suggests that it would be helpful if supervisors were clear about what was expected. This means telling the student what has to be done, how it should be done, and what to expect while doing it.

She suggests that research supervisors should assist students to pursue funding but it appears "a departmental rule not to". She emphasized that it was a departmental responsibility to get as much funding for as many students as possible. She has obtained an SSHRCC, and student loans to assist her financially in her program.

This subject found the proposal and the comprehensive exams the most difficult parts of the program. The difficulties with the proposal are referred to above. She felt that once a proposal was completed and accepted by the research committee there was no need for a test. This subject did not feel that the comps measured anything.

The difference between those that complete the program and those that don't depends on the individuals themselves, according to this subject. Some get jobs and some disappear into a bureaucratic black hole. With some of them they are there for awhile and then "they disappear, you see less and less of them and then not at all". Those that give up end up asking "Is it worth it?". She feels that international students might need "more direction" or "accommodation" than local students. She suggests that men and women experience the doctoral program differently, mainly because they are treated differently. She thinks men are sponsored through the program. She has attended both CASAE and AERC conferences since 1987, and suggests it is an opportunity to discuss her work at an international level. It is also a forum for "looking at things in a different way".

When she embarked on the doctoral program she wanted to teach in university. Then she felt that any job she could get upon completion would be satisfactory. Now she suggests that a position teaching in a university is her objective. When she began the
program she expected to complete her dissertation in seven years. She now suggests that she will finish the program, but cannot predict when.

Her score on the procrastination scale was 62.9%.

Case # 6: Female.

The interview took place in an interview room at the interviewee's office. The interview was conducted at a table with the interviewer and interviewee seated opposite one another. There was no-one else present during the interview and no disturbances. The interviewee declined the offer of a break mid-way through the interview so the interview was conducted at one sitting.

At the time of the interview she had yet to be admitted to candidacy. She had completed the coursework and comprehensive exams but had not completed her proposal. She began the doctoral program with a master of arts degree which she had completed in twenty months. She is currently employed as a research assistant at UBC, and has a supportive partner. Although her partner works full time, and she was able to secure fellowship funding, which is supplemented by a research assistantship, she still feels constrained by finances as there is concern for aging parents who will need future financial help. She views her decision making style as different depending if the decisions are related to work or study and family decisions. She suggests that more time is required in family decisions and there is not the urgency in reaching a decision as there is at work. She feels that she has adequate space and time for her studies, and a partner who understands the demands of the doctoral program. She suggests this accounts for the fact that her studies have not directly caused friction in her home life. She has received fellowships funding since beginning her program. She does not consider the utility of the doctorate as a means of making more money, rather she views it as a way of "improving quality of life". It
does have utility if one pursues a teaching position at a university or even a college. The prospects of employment in an adult education department are severely limited in her estimation.

When she took courses she set schedules and "treated it as a job". She found that her background, and ability to plan was helpful. She withdrew from courses if she determined that the material was similar to material covered in a previously taken course. She associates with other doctoral students and feels this is an important part of the program, especially for international students. She had a research topic when she began the program. It was a spin-off from work she had done for her masters. It has gone through changes, and she suggests it will probably change again. She chose her topic first, then chose the research supervisor.

She suggests that the most difficult part of the dissertation proposal for her was "sorting out the topic", and coming up with a "conceptual framework for the committee". A normal week's work for her is 12 hours as a research assistant (plus commuting) which leaves about two and one-half days to work on the proposal. The amount of loneliness or isolation one experiences when working on the dissertation is "dependent on where you work" according to this subject. She has found a "need to create deadlines". She suggests that when she "is tired", and starts to become distracted she will "vary the routine". If she begins to lose interest while working she "quits".

This candidate refers to "having an interesting mind", able to "get along well with the student", and being "friends as well as academic colleagues" as characteristics or qualities she considers important in a research supervisor. Her supervisor was chosen because of these characteristics, plus he was the "only one in the field". She attests to a good relationship with her supervisor and committee. She suggests it is helpful that her supervisor is "interested in what she is doing". She expected the research supervisor to assist her in obtaining funding and she was successful in receiving a two year Killam Fellowship,
and a two year SSHRCC, which she supplements with work as a research assistant. She has previously worked as a teaching assistant for three years. In discussing the coursework she was disappointed in the first year doctoral seminar, but felt the second year was better. She has taken a number of electives, mainly qualitative research methods and issues in adult education. She had a choice of comprehensive exams, either the one day exam or the one week. She was familiar with examples of the one day exam so chose to write that one.

This participant suggests that the reason some people complete and others don’t might have to do with students "need to work as well" as study, and therefore they might "take different periods of time depending on funding". She also views a "lack of understanding" by supervisors "having an impact" on the students. She has witnessed students at the point of giving up because a "supervisor or committee lose interest in the topic" or the student might develop "personal problems". She feels that international students have a "different understanding and expectations" than local students. They experience difficulty in "having to adapt to the structure" of the department. A "shortage of funding", especially for students from "third world countries", and the "lengthy separation from their families" creates further difficulties for some. She suggests that men and women experience the doctoral program differently. She refers to differences in enrollment "more women do the masters program", and "more men do the doctorate". For women, she says, it depends on "how they see other responsibilities it their life", besides the program. She suggests "for some this dual role is difficult". She has attended conferences yearly, and found them helpful. She has been encouraged to attend by faculty and other students.

She considers original knowledge to be "new" in the sense of not having been reported before. She feels that her work will contribute to the existing body of knowledge and be considered original. When this subject began the program she considered a teaching position in either a university or college as the outcome of her program. She suggests that now the order is reversed with the first preference being a college as "universities in large
cities" have lost their appeal. She would like to combine teaching with private consulting. When she began the program her estimated time of completion of her dissertation was "three years or four at the most". She now considers "four to be closer" but cannot ensure that she will complete then. She is confident she will complete, if not within the allotted time then she will "keep working at it".

Her score on the procrastination scale was 42.9%. 
APPENDIX C
ANALYSIS, RESULTS, AND INTERPRETATION OF DATA COLLECTED IN PILOT STUDIES

In this appendix methods for analyzing the case study data are compared. The case study evidence is analyzed to address the initial propositions of the study. A matrix is developed to display the data. The results and interpretation of the findings are reported, and preliminary conclusions drawn. The goal of the analysis is to produce compelling analytic conclusions and to rule out alternative interpretations while treating the evidence fairly.

Data analysis is the process of bringing order, structure, and meaning to the mass of data collected. Preparation for conducting case study analysis requires a general analytic strategy. Marshall and Rossman (1989), state Qualitative data analysis is a search for general statements about relationships among categories of data; it builds grounded theory (p 112). Patton (1990), determines that the purpose of classifying qualitative data for content analysis is to facilitate the search for patterns and themes within a particular setting or across cases (p 384). Yin (1989), advises that an investigator rely on the theoretical propositions which led to the case study. These researchers are all saying that the purpose of evidence analysis is to derive meaning from the mass of data collected when a case study is undertaken.

Marshall and Rossman (1989), categorize analytic procedures as falling into five modes: organization of data; generation of categories, themes and patterns; testing the emergent hypothesis against the data; searching for alternative explanations of the data; and writing the report. For case study analysis, Yin (1989), recommends the use of pattern-matching logic, which compares an empirically based pattern with a predicted one. When
the results of the case study coincide with the results predicted by the study proposition, pattern matching has taken place. This serves to strengthen the case study's *internal validity*.

A second type of pattern matching is accomplished by searching for alternative explanations (Marshall and Rossman, 1989), or rival theoretical propositions articulated in operational terms (Yin, 1989). As patterns between categories emerge in the data the researcher must search for other, plausible explanations for these data and the linkages among them. Yin (1989) refers to these alternative explanations as *rival interpretations involving a pattern of mutually exclusive independent variables whereby if one explanation is to be valid, the others cannot be* (p 111).

**Analyzing the Case Study Evidence**

As the raw data were collected a general analytic strategy, (which relied on the theoretical propositions that led to the case study), was utilized to reduce potential analytic difficulties. Data were linked to propositions using pattern-matching logic which served to strengthen the case study's *internal validity*. Where rival or alternative explanations existed, they were identified and described.

Data analysis was ongoing throughout the process with the major analysis and interpretation performed in two stages. First, individual charts were constructed for participants in the pre-pilot study, and a summary of each interview was entered on these charts. A profile of each respondent (see Appendix B) was generated from the summary and added to the chart. Information arising from the pre-pilot interview process was considered and revisions made to the interview schedule before the subsequent pilot study interviews were undertaken. Interviews were conducted in accordance with the pilot case-study protocol and procedures established in the pre-pilot study. Individual charts were constructed for participants in the pilot study, and summary information entered on the charts. As in the pre-pilot study, a profile was developed for each participant (see
Appendix B). Case profiles were verified by comparison with the transcripts and audi­
tapes.

The second, and larger stage of analysis consisted of constructing a master chart
which contained responses to each of the interview questions. Responses from both the
pre-pilot and pilot study interviews were entered on the master chart. From this master
chart a Case-Ordered Matrix (Miles and Huberman, 1994), was developed.

Developing The Matrix

The matrix is displayed in Table 1. This provided a coherent array of the basic data
for each of the variables across all cases. The matrix helped clarify the domain in
conceptual terms, and made it possible for the analyst to begin to trace the emerging
threads of causality. Each case was ranged vertically and each question horizontally. The
researcher entered quotes and paraphrases, aiming to distill the essence of the interview
material appropriate for each cell. The matrix helped the analyst to understand the data
temporally, and provided a "first feel" for the causal mechanisms that might be involved.
When this sort of matrix is developed, analysis occurs during the actual data entry, which is
done by moving down each column. By the time the rows and columns are filled in the
analyst has a first sense of what the dynamics have been, and what themes and patterns exist
(Miles and Huberman, 1994).
**CASE-ORDERED MATRIX:**

**Table 1a: Background Variable**

<table>
<thead>
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<th>CASE 1</th>
<th>CASE 2</th>
<th>CASE 3</th>
<th>CASE 4</th>
<th>CASE 5</th>
<th>CASE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>faculty reputation</td>
<td>UBC's reputation</td>
<td>family here</td>
<td>accepted at UBC</td>
<td>previously UBC family here</td>
</tr>
<tr>
<td>B2</td>
<td>met one faculty</td>
<td>met one faculty</td>
<td>did not know</td>
<td>knew faculty by reputation</td>
<td>did not know faculty or students know faculty and students</td>
</tr>
<tr>
<td></td>
<td>no students</td>
<td>no students</td>
<td>faculty or students</td>
<td>master of arts</td>
<td>master of arts</td>
</tr>
<tr>
<td>B3</td>
<td>master of arts</td>
<td>master of arts</td>
<td>master of arts</td>
<td>master of arts</td>
<td>master of arts</td>
</tr>
<tr>
<td></td>
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<td>Massey Univ.</td>
<td>Simon Fraser Univ.</td>
<td>Univ. of Sask.</td>
<td>Univ. of Toronto</td>
</tr>
<tr>
<td>B4</td>
<td>twenty-one months</td>
<td>eighteen months</td>
<td>seventeen months</td>
<td>sixty months</td>
<td>fifteen months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>twenty-four months</td>
</tr>
<tr>
<td>B5</td>
<td>enjoyed masters/</td>
<td>professional reasons</td>
<td>encouraged/</td>
<td>improve credentials</td>
<td>teaching job at university</td>
</tr>
<tr>
<td></td>
<td>encouraged</td>
<td>personal reasons</td>
<td>received funding</td>
<td>job opportunities</td>
<td></td>
</tr>
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<td>achievement</td>
<td></td>
<td></td>
<td>teach university</td>
</tr>
<tr>
<td>B6</td>
<td>experience is different</td>
<td>F. students want to do F issues</td>
<td>some F. students</td>
<td>F. professional background</td>
<td>M and F treated different</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>too feminist</td>
<td>different</td>
<td>more M than F work in academics</td>
</tr>
<tr>
<td>B7</td>
<td>face a-cultural/</td>
<td>no family here</td>
<td>recognize individual</td>
<td>might be better than some</td>
<td>some accommodation</td>
</tr>
<tr>
<td></td>
<td>a-political dept.</td>
<td>time/money constraint</td>
<td>traditions</td>
<td>Canadians</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1b: Environment Variable**

<table>
<thead>
<tr>
<th>CASE 1</th>
<th>CASE 2</th>
<th>CASE 3</th>
<th>CASE 4</th>
<th>CASE 5</th>
<th>CASE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>not employed</td>
<td>work part-time</td>
<td>not employed</td>
<td>work full-time</td>
<td>work part-time</td>
</tr>
<tr>
<td>E2</td>
<td>N/A</td>
<td>require doctorate</td>
<td>N/A</td>
<td>require doctorate</td>
<td>not required</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>require doctorate</td>
<td>require doctorate</td>
</tr>
<tr>
<td>E3</td>
<td>not much difference</td>
<td>decisions made quickly at work</td>
<td>less independent at work</td>
<td>decisions made quickly at work</td>
<td>no difference</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>decisions made quickly at work</td>
</tr>
<tr>
<td>E4</td>
<td>teach/research in university - reqd.</td>
<td>teach university/consult - reqd.</td>
<td>teach university</td>
<td>teach university</td>
<td>if university hired then would be reqd.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>work in faculty development - reqd.</td>
</tr>
<tr>
<td>E5</td>
<td>spouse and self parenthood</td>
<td>spouse and three year old son</td>
<td>spouse and self</td>
<td>self and two year old son</td>
<td>partner and self</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>elderly parents</td>
</tr>
<tr>
<td>E6</td>
<td>spouse supportive timespace/interest</td>
<td>spouse supportive timespace/interest</td>
<td>quite supportive timespace</td>
<td>single parent</td>
<td>partner supportive timespace/interest</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>some timespace</td>
</tr>
<tr>
<td>E7</td>
<td>studies have caused friction at home</td>
<td>studies have caused friction</td>
<td>studies have not friction at home</td>
<td>causes of friction</td>
<td>studies not caused friction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>caused friction</td>
</tr>
<tr>
<td>E8</td>
<td>started program using savings</td>
<td>started program using savings</td>
<td>started program with scholarship</td>
<td>started program with student loan</td>
<td>started program with scholarship</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E9</td>
<td>better than others</td>
<td>better than others</td>
<td>better than others</td>
<td>better than others</td>
<td>better than others</td>
</tr>
</tbody>
</table>
### CASE-ORDERED MATRIX

**Table 1c: Organization Variable**

<table>
<thead>
<tr>
<th>CASE</th>
<th>CASE 2</th>
<th>CASE 3</th>
<th>CASE 4</th>
<th>CASE 5</th>
<th>CASE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
<td>get together for mutual support</td>
<td>get together for mutual support</td>
<td>do not get together</td>
<td>get together only during residency</td>
<td>get together for mutual support</td>
</tr>
<tr>
<td>O2</td>
<td>group is helpful “fundamental”</td>
<td>group very helpful “therapeutic”</td>
<td>would like to have a ‘support group’</td>
<td>would be helpful if ‘continued on’</td>
<td>should be continued ‘is important’ group is useful “helpful to me”</td>
</tr>
<tr>
<td>O3</td>
<td>had research topic has changed</td>
<td>had research topic has changed</td>
<td>had research topic theory changed</td>
<td>did not have topic has changed twice</td>
<td>broad topic area is revising</td>
</tr>
<tr>
<td>O4</td>
<td>personal research discuss with others</td>
<td>personal interest discuss with others</td>
<td>personal research personal research</td>
<td>self-directed personal research research of area</td>
<td>personal interest interest in area and expert in field</td>
</tr>
<tr>
<td>O5</td>
<td>narrowing proposal eighteen months</td>
<td>choosing methodology twenty-four months</td>
<td>narrowing focus methodology thirty-six months</td>
<td>agreement on framework forty-eight months</td>
<td>conceptual framework not yet completed</td>
</tr>
<tr>
<td>O6</td>
<td>scholarship and commitment</td>
<td>supervisor must be able to spend time</td>
<td>support encourage and spend time</td>
<td>perceptiveness degree of fit, and patience</td>
<td>interesting mind develop relationship</td>
</tr>
<tr>
<td>O7</td>
<td>supervisor first committee together</td>
<td>supervisor, then trial and error</td>
<td>supervisor, chosen committee together</td>
<td>chose committee for experience/expertise</td>
<td>supervisor, chosen committee for experience/expertise</td>
</tr>
<tr>
<td>O8</td>
<td>good relationship mentor &amp; friend</td>
<td>good relationship with supervisor</td>
<td>comfortable &amp; work well with supervisor</td>
<td>good relationship/arms length relation with supervisor</td>
<td>good relationship, friend &amp; colleague</td>
</tr>
<tr>
<td>O9</td>
<td>expected supervisor help with funding</td>
<td>expected supervisor help with funding</td>
<td>funding help is part of supervision</td>
<td>provide advice on sources of funding</td>
<td>department should provide advice help with funding expected supervisor help with funding</td>
</tr>
<tr>
<td>O10</td>
<td>UGF (2 yrs), Killam (1yr), one term RA</td>
<td>UGF (3yrs), part-time work</td>
<td>extended fifth year</td>
<td>scholarship (4yrs), UGF (1yr), SSHRCC (2yrs)</td>
<td>TA, RA, loans TA, RA, loans and RA</td>
</tr>
<tr>
<td>O11</td>
<td>realizing how long it takes to complete</td>
<td>looking for a research topic</td>
<td>the comprehensive examination</td>
<td>first year courses constructing theory coursework and comp. exam</td>
<td>starting a doctorate direct from masters</td>
</tr>
<tr>
<td>O12</td>
<td>persistence; leeway turns into drift</td>
<td>motivation/finances drag on/drift away</td>
<td>more persistent change in priorities</td>
<td>commitment/drive, no finances/support</td>
<td>distractions and non-completers just drift away</td>
</tr>
<tr>
<td>O13</td>
<td>low marks caused crisis of confidence</td>
<td>stress of doing research</td>
<td>lack of support</td>
<td>personal reasons, had to get job</td>
<td>some peers seem to slowly disappear supervisor difficult then lost interest</td>
</tr>
<tr>
<td>O14</td>
<td>2 conferences/year advisor encouraged</td>
<td>yearly conferences has not attended any conferences</td>
<td>annual conferences advisor encouraged</td>
<td>annual conferences faculty encouraged conferences, faculty students encouraged</td>
<td></td>
</tr>
<tr>
<td>O15</td>
<td>very little work done in this area</td>
<td>will make a modest contribution</td>
<td>will give a deeper understanding</td>
<td>area of research is understudied</td>
<td>contribution to original knowledge</td>
</tr>
</tbody>
</table>
**CASE-ORDERED MATRIX**

**Table 1a: Attitude Variable**

<table>
<thead>
<tr>
<th>CASE 1</th>
<th>CASE 2</th>
<th>CASE 3</th>
<th>CASE 4</th>
<th>CASE 5</th>
<th>CASE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>to get job teaching in a university</td>
<td>future employment/personal achieve.</td>
<td>status and prestige conferred on you</td>
<td>employment/personal develop.</td>
<td>aid in obtaining employment</td>
</tr>
<tr>
<td>A2</td>
<td>work prospects &quot;waning&quot;</td>
<td>Canada prospects &quot;pretty gloomy&quot;</td>
<td>chances in B.C. &quot;not very good&quot;</td>
<td>&quot;overqualified or underqualified&quot;</td>
<td>&quot;not very good for adult educators&quot;</td>
</tr>
<tr>
<td>A3</td>
<td>tendency to want to overachieve</td>
<td>new courses and research take longer</td>
<td>completed work in allotted time</td>
<td>essentially all done at last minute</td>
<td>procrastinate in getting started</td>
</tr>
<tr>
<td>A4</td>
<td>withdraw undergrad audit in graduate</td>
<td>never withdrawn from a course</td>
<td>dropped out of graduate course</td>
<td>withdraw from undergrad course</td>
<td>tried to withdraw too late so failed</td>
</tr>
<tr>
<td>A5</td>
<td>work 4 days a week 9am to 4pm</td>
<td>Monday to Friday 8:30am to 5:00pm</td>
<td>adjust schedule to that of son</td>
<td>monthly schedule work 3-4 hrs/time</td>
<td>work in 'fits and starts'</td>
</tr>
<tr>
<td>A6</td>
<td>not felt lonely or isolated</td>
<td>dissertation write-up is solitary</td>
<td>separated from dept. and other students</td>
<td>stay isolated to avoid distractions</td>
<td>isolated from dept. partly by choice</td>
</tr>
<tr>
<td>A7</td>
<td>can easily get distracted</td>
<td>did not allow distractions</td>
<td>can stay focused once work begins</td>
<td>data collection proves distracting</td>
<td>&quot;avoidance behavior and procrastination&quot;</td>
</tr>
<tr>
<td>A8</td>
<td>was able to set a schedule</td>
<td>planned schedule to do research</td>
<td>set short term targets</td>
<td>tried to work sequentially</td>
<td>established a personal schedule</td>
</tr>
</tbody>
</table>

**Table 1b: Intent Variable**

<table>
<thead>
<tr>
<th>CASE 1</th>
<th>CASE 2</th>
<th>CASE 3</th>
<th>CASE 4</th>
<th>CASE 5</th>
<th>CASE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>teaching graduate program in ADED</td>
<td>professor in an academic institution</td>
<td>work in the ADED field somewhere</td>
<td>university teaching or research posn.</td>
<td>to get a job teaching adults</td>
</tr>
<tr>
<td>I2</td>
<td>would complete 2yrs</td>
<td>would complete 3yrs</td>
<td>would complete 3yrs</td>
<td>would complete 7yrs</td>
<td>would complete 7yrs</td>
</tr>
<tr>
<td></td>
<td>will take three yrs</td>
<td>will take four yrs</td>
<td>will take six yrs</td>
<td>now take six yrs</td>
<td>now thinks eight yrs</td>
</tr>
<tr>
<td>I3</td>
<td>thinks will complete in four years</td>
<td>will complete in four years</td>
<td>will complete in six years</td>
<td>will complete in six years</td>
<td>dep on personal circumstances</td>
</tr>
<tr>
<td>I4</td>
<td>&quot;of course&quot;</td>
<td>&quot;no problem&quot;</td>
<td>&quot;yes, if it's of any relevance&quot;</td>
<td>&quot;don't remember letter, but sure&quot;</td>
<td>&quot;oh sure, it's fairly boring&quot;</td>
</tr>
</tbody>
</table>
Results And Interpretation

The matrix represents the synthesis of more than six hundred pages of transcripts and field notes resulting from the interviews. In constructing the matrix key words used by the participants were chosen to convey their responses. Emphasis added to certain responses reflect the way participants chose to emphasize specific words or phrases in their answers. While the matrix allows for compression and display of a large amount of data in a limited space, and provides an opportunity for comparison, it is only through interpretation of results that preliminary conclusions can be drawn. In the following section, results from each of the key variables in the conceptual model are reported and interpreted. Patterns (Yin, 1989), commonalities, and themes (Miles and Huberman, 1994) are identified. Conclusions drawn from this interpretation are reported in the following chapter.

Pattern matching

Five constructs were proposed in the conceptual model described earlier, for investigating factors affecting progress to the doctorate, and the decision to complete or withdraw from the program. They are briefly reviewed here as they form an integral part of the data analysis, and can facilitate pattern-matching. Linking data to propositions, or to previous literature, by comparing an empirically based pattern with a predicted one (Yin 1989, p 109), strengthens the internal validity of the study. The results obtained during the construction of the matrix are reported directly following each construct review to make commonalities and themes explicit. In this way the groundwork for drawing preliminary conclusions is laid, and the method by which they were derived is made clear.

Background

The background characteristics of a student influence the way in which the student interacts within the environment of the institution. This interaction determines the degree
to which the student is satisfied with the institution, and an increased level of satisfaction is reflected in an increased level of institutional commitment (Tinto, 1975, 1986), or institutional fit (Bean, 1982, 1986).

The results of this study demonstrate that reputation of the university and the faculty were reasons that participants chose UBC for their doctorate. A majority had met a faculty member or knew of faculty members by reputation before enrolling. All participants had a master's degree when starting the program with the majority having obtained an MA in the area of education. Participants arrived at UBC from various locations; one from the USA; one from New Zealand; and four from Canada. These countries share a similar academic culture which makes this a somewhat homogeneous group in academic background. Most completed the master’s degree within two years. There is some indication in the results that students perceive the doctoral process as similar to their experience in the masters without due regard for the self-directed nature of doctoral study. They exhibit a poor understanding of the rigorous nature of developing original knowledge, and length of time the process takes to complete. Fishbein and Ajzen (1975) suggest that the longer the time between intent (to complete the program), and behavior (completing the program), the less chance the behavior will happen.

While reasons for enrolling in a doctoral program varied, all participants stated they enrolled with the long range goal of teaching at a university where the doctorate is the requisite credential. It is interesting to note that none of the participants reported enrolling in the doctoral program because of a desire to research a specific topic they felt required investigation. This suggests that for the group studied the motivation for pursuing the doctorate was future employment prospects, and the research component of the program was of lesser importance.

The initial lack of interest in research provides a partial explanation of the difficulties participants experienced in the final selection of a research topic for the dissertation proposal. It might also indicate that these participants are outcome - rather than process -
oriented, and provide an insight into difficulties reported by students when undertaking their research. This study makes no attempt at generalizability. However, if this group is considered similar to a larger group of doctoral students, then attitude to research provides an interesting area for future study.

**Men's and Women's experience**

Participants suggested that men and women experience the doctoral program differently, and attributed this to women coming from "different professional backgrounds". This was a reference to the increased number of women students entering adult education from the health care field. The predominance of males in the department meant fewer role models for women and a perceived lack of interest in researching women's issues. This perception was countered by other participants who suggested that there was too much emphasis placed on "politically correct" gender issues. There was a suggestion that men and women are treated differently by faculty in adult education. This was presented in the context of male faculty spending more informal time with male students, including "going for lunch or coffee with them", while female students were not treated in the same manner or given adequate "empathy and encouragement" by these same faculty advisors. This might be a result of faculty sensitivity to gender issues; a male professor would be concerned about the perception created by inviting a female student for coffee or lunch.

**International Students**

International students were also perceived to experience the doctoral program differently when faced with a faculty consisting of "white, North Americans" who take an "a-cultural and a-political" approach to their work. Most international students are separated from their families. They have tight financial budgets and time frames for completion. Participants suggested that international students were treated as "members of some group" rather than as individuals, and that there were few "ethnic role models" among the current faculty. Some international students come from cultures that view the professor as an authority figure who is not to be questioned. These students may take a less assertive
approach to their program. There were also suggestions of "unwitting ethnic condescension", and a lack of acceptance of the traditions of some international students. Respondents recommended that these matters be addressed, and certain accommodations made for international students.

Environment

Environmental variables are the structural opposites of the organizational variables in that they are factors over which the organization has little or no control. These environmental factors comprise the students' work situation (Bean 1982, 1983; Robinson, 1969), family responsibilities, (Bean, 1982; Tinto, 1986), difficulty in financing studies (Cabrerra, Stampen and Hansen, 1990), and support for continuation of studies (Bean, 1983; Nora, Attinaisi, and Matonak, 1990). These variables reflect more-or-less objective assessments of the environment outside the educational institution.

Decision Making

Environmental factors affect students' persistence/withdrawal decisions, and subsequent behavior. The study participants who worked part - or full-time were questioned about decision making. They reported making decisions in their work environment more quickly than in the home environment. At work there was not the "same extended time frame" as existed in domestic decisions. Work required more "urgency and efficiency". Their decision-making style proved beneficial to two participants who reported treating their doctoral program "as a job" devoting to it similar hours as to "work". They reported little difficulty in making decisions (attributing this ability to their background) as they progressed through the program. This suggests that work experience, involving decision making, develops skills beneficial to students undertaking doctoral study.

Participants with a spouse or partner reported them to be "supportive", and "generally interested" in their research and allowed them "time and space" to concentrate on their studies. A closer investigation of responses revealed that concentration on studies
caused "conflicts" or "friction" in the homelife of a majority of participants. Academic work was perceived by significant others as taking time away from dealing with emotional or domestic issues. To ensure harmony a balance is required between academic and domestic responsibilities with a method of negotiating extra time when required in either area.

**Finances**

Most participants reported their financial situation as "better than others" in the program. While two of the participants relied on savings to begin the program, the rest began with either a scholarship or student loan. Although finances are discussed in another section it must be noted here that not all students are equally successful in obtaining assistance. The "others" referred to above experience difficulties related to their financial situation. The majority of study participants were successful not only in obtaining financial aid in the form of fellowship or scholarship funding, but also in obtaining part-time work, in the form of teaching or research assistantships. While such positions proved beneficial for participants, by accepting them they limited the number of positions available to "other" students who were experiencing financial hardship. Financial aid appears to be bestowed on students based strictly on marks, and letters of recommendation rather than demonstrated need. Students who succeed in obtaining a fellowship then become eligible for other awards. Students who are unsuccessful in their applications for aid might find the burden of finances too great for them to bear, and withdraw from the program. If students were eligible for either fellowship, or assistantship funding but not both, this would provide additional aid for those students on the verge of withdrawing for lack of finances.

Receiving financial aid has a supplementary benefit in that it reinforces students' self-esteem. By awarding financial assistance the institution recognizes the individual's contribution to the development of knowledge, and removes the perception that not all students have an equal opportunity to pursue doctoral studies. It might also make the student feel part of the department and strengthen his/her goal and institutional commitment.
Organization

Organizational characteristics are indicators of the student's integration with the institution. They reflect the student's objective experience of the organization as indicated by the number of close friends (Bean, 1982, 1986), amount of informal contact with faculty (Pascarella and Terrenzini, 1980; Tinto, 1975, 1986), the amount of help an advisor gives in specified areas (Bean, 1982, Tinto 1986), and availability of financial aid. Organizational variables can be administratively manipulated, and as such are ones over which the institution has some control.

Peer Support

Participants all reported a time during their residency when they got together with other students, usually from their cohort, to share experiences. Results show that only one-half of the subjects continued to meet with other doctoral students for mutual support once their residency was completed. This is interesting in light of participants' responses to a question on the importance of a support group. They chose phrases like fundamental, therapeutic, important, and helpful to me to describe how they felt about support groups. Later in the interview some of these same participants reported feeling lonely or isolated because they no longer belonged to such a group. One wonders why they stopped meeting with others. Perhaps they thought that everyone was further along in the program than themselves. From conversations this researcher has had with graduate students there appears to be a misconception that everyone else is making more progress, and that the difficulties experienced by a particular student are unique. Continued meetings with a group might have shown this not to be the case. If peer support is an essential part of the program, then there is a greater likelihood that those who withdraw from a support group will feel isolated and increase their risk of drifting away.

Research Topic
Participants all reported having a topic when they began the program. However it became evident that their definition of a topic really described a broad research area. Subsequent investigation of interview transcripts revealed responses such as, *I had about three possible areas*, or *I had identified a research area*, and *I had a big research area*. Other participants reported that the requirement to state a topic when applying to the program resulted in their suggesting a continuation of *the kind of research I was involved with at that time; it was a matter of building on my master's degree*. One subject viewed the doctoral seminar as a more appropriate forum for *sorting out one's research topic*. Participants behavior supports the contention that the outcome is more important than the process. They devoted little time and effort to the selection of a "researchable topic" to investigate during their doctoral program. This suggests that they were relying on their experience of the master's program where demonstrated knowledge of the methodology was considered of primary importance, and the topic secondary. Interestingly, none of the *topics* initially stated by the participants when beginning the program were subsequently developed for the dissertation proposal.

Once a topic was selected and researched participants reported difficulties in choosing methodology, or developing a conceptual framework, and narrowing their focus for the dissertation proposal. The degree of difficulty encountered in resolving these problem areas is reflected by the length of time in the program prior to proposal acceptance, which varied from eighteen to forty-eight months.

*Research Supervisors*

Subjects usually selected their research supervisor first then chose committee members in consultation with the supervisor. Participants reported that scholarship and commitment to the student, possession of an "interesting mind", patience, perceptiveness and diplomacy, and a supporting and encouraging attitude were the most important qualities or characteristics in a research supervisor. While most report a good relationship with their research supervisor, this was not the case with some committee members.
Participants stated they expected research supervisors to be informed about, and to provide assistance in, acquiring funding for doctoral study. All participants were successful in obtaining at least one major fellowship or scholarship, and some more than one. All but one of the respondents supplemented the fellowship with either a teaching or research assistantship. None of the participants viewed finances as a major personal constraint but cautioned that this was not the case for all doctoral students. Respondents suggested that obtaining a fellowship enhanced the chances of being selected as a teaching or research assistant.

**Stages Of The Program**

Participants experienced difficulty at different stages of the doctoral program. For some this occurred during the first year in adjusting to a new environment, uncertainty about funding, and the limited range of courses available. Others found looking for a research topic acceptable to the research committee, and constructing theory, to be the most difficult components. The comprehensive exam, and the realization of how long each stage of the program takes to complete, were reported as other significantly difficult stages of the program. The difficulty in judging how long tasks take to complete is a theme that appears in other areas of this study. It indicates that participants focus on the outcome rather than the process. An understanding of the length of time bureaucratic systems require to process information might reduce frustration.

Students likely to complete the doctoral program were described by study participants as **persistent individuals with motivation, drive, supervisor support, and adequate financial resources**. Those likely to withdraw, or not complete the program, were seen as victims of too much "leeway" by supervisors, who assume incorrectly that they are "getting on with their work". This perception allows the at-risk students to "drift" and become distracted. Their priorities change; they drag on until finances become a problem, and then just "drift away". The concept of drift is a recurring theme used by participants to describe what happens to students who don't complete the program. The at-risk student tends to
spend less time associating with others and slowly disappears from campus, or just drifts away. Whether this is a form of anomie as described by Durkheim (1951), (whereby the student is committing a type of educational suicide), or the result of a longitudinal process which results in the decision to withdraw, or simply a tendency to procrastinate is unclear at this stage. However, the prominence of its usage by study participants indicates that the concept of drift is worthy of further investigation.

Study participants knew doctoral students at the point of giving up on the program who cited lack of supervisor support, stress of doing research, lack of finances resulting in the need to get a job, lower than anticipated marks, or an overly critical approach by a supervisor as contributing factors. These complaints were usually the most recent in a series of disappointments resulting in disillusionment with the process and the program. This indicates that there is a critical level beyond which students are not prepared to go, and may shed light on the concept of drift. Viewed from the perspective of resilience, the ability to rebound from disappointments may diminish with time. Repeated incidences may increase the amount of time required to become motivated again, to the point where less time is spent in action and more time in recovery. The amount of effort devoted to studies is reduced until it diminishes almost completely. Ultimately there comes a point where the effort required to continue is greater than the disappointment of not completing. Early intervention by peers or supervisors can prevent this cycle from continuing.

**Conference Participation**

Conferences were described by respondents as a way of meeting colleagues in the field (and although not specified, one might assume potential employers), and a chance to present the student’s work. This was reported as a positive, rewarding experience. Presenting papers at conferences serves another purpose. If students apply for fellowship funding, and they lack recent publications or conference presentations to report on their applications, their chances of receiving funding are diminished compared to another student of similar merit but with recent publications. All but one of the study participants attended
annual conferences and were encouraged to participate by their supervisors. The participant that did not attend conferences is funded by a long term scholarship which does not require yearly application for renewal.

**Attitudes**

Attitudinal and outcome variables, by and large, represent the psychological results of interacting with the organization. These variables provide a subjective interpretation of the objective educational experience. The variables include assessments of the practical value of the doctoral degree (Simpson, 1987), and confidence in achieving their goals (Bean, 1983; Tinto, 1975). These variables include some of what Pascarella (1980) considered educational outcomes, what Bean (1980) termed personal variables, and what Fishbein and Ajzen (1975) referred to as attitudes. A new variable, procrastination, was introduced and is explained in greater detail in the section on task completion below. This variable has not previously appeared in the literature related to persistence/attrition in higher education. Research reveals that students procrastinate because they cannot meet their own or others' expectations, or because of concerns about poor performance (Burka and Yuen, 1982; Effert and Ferrari, 1989; Flett, Blankstein, Hewitt and Koledin, 1992; Lay, 1986; and Solomon and Rothblum, 1984).

**Utility Of Degree**

The utility of the doctoral degree was reported by participants firstly as an aid to obtaining future employment, and secondly as a form of personal achievement which conferred a certain status and prestige on the holder. The majority of respondents viewed the doctorate as the credential that would help them gain employment at a university or college, but not as specialists in their research area. While none of the participants were optimistic about the market for adult educators with a doctorate, in only one case did a respondent mention that their research might assist them with employment. This was surprising as one would anticipate that becoming a specialist in an area would be seen as
positive in pursuing work in that field. Most suggested that they wanted to teach graduate students at a university, with only two respondents indicating that further research was of interest to them. This appears to indicate that the majority of respondents are more interested in the practical application of what they have learned rather than in the theoretical aspects of research, thus posing interesting questions. Is their interest in teaching an indication that they view the ability to teach as more important than research in future employment? Or was their experience of completing research for the doctorate such that they do not see it as something they want to actively pursue? While answers to these questions were not determined, respondents were confident in stating that their dissertation research will contribute to existing knowledge.

Task Completion

When questioned about length of time required to complete academic tasks respondents reported that tasks usually took longer to complete than anticipated, and sometimes resulted in last minute rushing. The compensating reasons provided included: poor planning, research takes longer, want to overachieve, and procrastinate in getting started. These are also characteristics of procrastination previously described in the literature, and indicate that procrastination affects participant’s timely completion of tasks. In an attempt to measure levels of procrastination among participants a Procrastination Scale (Tuckman, 1991) was left with participants at the close of the interview. The scale was re-titled Questionnaire in an attempt to reduce bias which might otherwise occur by indicating it was a measure of procrastination. The procrastination scale item statements and matrix of results are displayed below.
### Procrastination Scale Item Statements and Matrix of Results

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<thead>
<tr>
<th>Item Statement</th>
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<td>C</td>
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<tr>
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Legend: Me For Sure=4; My Tendency=3; Not My Tendency=2; Not Me For Sure=1.

Italics indicate reverse scoring.
Scoring The Procrastination Scale

All items have four response choices per item, and are scored: Strongly Agree (*Me For Sure*) = 4; Agree (*My Tendency*) = 3; Disagree (*Not My Tendency*) = 2; Strongly Disagree (*Not Me For Sure*) = 1, except for the following items: 6, 8, 11, 13, 17, 25, 29, 30, 33, 34 which are scored reverse. The raw scores generated by this method were as follows: Case #1 = 71; Case #2 = 80; Case #3 = 62; Case #4 = 69; Case #5 = 88; Case #6 = 60 (All scores are out of a possible total of 140). The higher the score, the greater the tendency to procrastinate. The scores on the procrastination scale are intended to provide an alternate source of data and are included in the participant profiles (as a percent score) in Appendix B.

Patterns

A review of the Procrastination Scale Item Statements and Matrix of Results above reveals certain patterns. All participants responded to the following three questions by indicating Strongly Agree, or Agree: 6) I'm on time for appointments; 17) When it counts, I can manage to enjoy studying; and 33) I have never let a task defeat me. Male participants answered the following questions uniformly: 21) Studying makes me feel miserable, was answered D (strongly disagree); 22) I'm a time waster but I can't seem to do anything about it, was answered D (strongly disagree); and 31) I will look for a loophole or shortcut to get through a tough task, was answered B (agree). Female participants answered the following questions uniformly: 5) I stall on initiating new activities, was answered C (disagree); 28) Even though I dislike myself when I don't get started, I still don't get going, was answered C (disagree); and 34) Putting off a task until tomorrow is not the way I do things, was answered B (reverse scored, disagree).

A typical male respondent in this study (defined as where all three responded Strongly Agree or Agree to a question) would be punctual, dedicated to the task at hand, enjoy studying, and would not waste time. He would follow a plan of action and look for shortcuts to get through a task, and would always check over the task at the end. He would
not let a task defeat him. Using the same criteria typical female respondents in this study would be punctual, enjoy their studies, and not believe in delaying the start of tasks. They do not let tasks defeat them.

While it is not the purpose or intention of this study to statistically analyze the results of the procratination scale, or determine gender differences, certain observations can be made. There were differences in measures of central tendency for male and female participants on the scale. The male participants had a mean score of the 67.3, and standard deviation of 4.73, while the female participants had a mean score of 76.0, and a standard deviation of 14.42. If, as suggested by Tuckman (1991) that a higher score indicates a greater tendency toward procrastination, then it might appear that males in this study self-reported less of a tendency than females to procrastinate.

While these observations might be of interest in future studies, it must be kept in mind that the sample used in this study was not a random sample, therefore not intended for statistical analysis and generalization, plus it was a very small sample so caution is warranted in attempts to interpret the findings.

Procrastination and Drift

Most respondents avoid the use of the word procrastination, which has a negative social connotation, by labeling certain behavior drift. The concept of drift described earlier, is used by participants to refer to students who drag out each stage of the program and do not complete, and shows the longitudinal nature of the decision to withdraw. It suggests that students slowly reduce their efforts as accountability becomes less and less (everyone gets busy with other pressing matters), motivation decreases, and confidence in their abilities declines without support and encouragement from others. This was described by one participant as allowing the student to "soak in their own juices for awhile", which was not seen as helpful.

One way to counteract drift is by arranging for closer contact between committees and students. This is the time that a support group would be helpful but perhaps the
student procrastinates in seeking help until it no longer seems worth the effort. The fact participants felt compelled during the interview to provide reasons justifying the length of time it takes to complete tasks, indicates a perception that other students complete sooner or in a different manner. A common misconception among graduate students is that everyone else understands things better than they do, and others are further along in their program. This is simply not the case, but it is hard for students who are not part of a group to understand what their peers are going through. Attention might be devoted to ways of adequately preparing students for the length of time it takes to complete each stage. That this is a worthy consideration is reinforced by the previously stated fact that the longer the elapsed time between intent and the resultant behavior, the less likely the behavior is to occur.

Respondents reported establishing a schedule for working on their dissertation, but only two were able to specify the hours per week devoted to this. The majority of respondents reported feeling isolated or lonely while working on their dissertation, but this was not viewed as negative by all participants. Some reported that it was a self-imposed isolation to prevent distractions as opposed to those who suggested that by working off campus they were out of touch with other students and isolated from the activities of the department.

**Intent**

Intent is included as a variable because intentions are hypothesized to intervene between attitudes and behavior (Fishbein and Ajzen, 1975). Students’ intent to leave has been shown as highly predictive of actual attrition (Bean, 1980, 1982; Pascarella and Terenzini, 1983). In this instance, attitudes toward the academic experience and its outcome will affect the intent to continue in the doctoral program. Ethington and Smart (1986) demonstrated that students’ subsequent educational and occupational attainments can best be predicted or estimated by reviewing their initial educational and occupational
intentions or aspirations. The study participant's career letter provides stated educational and future occupational intentions and is another source of evidence to triangulate intent.

Respondents stated that when they embarked on the doctoral program they intended to obtain employment teaching in a university. This was verified by comparing responses with the intention stated in the career letters of all but one participant (who had submitted a resume in lieu of a career letter with the application). When asked if those intentions had changed, two participants suggested they now do not consider teaching university as their primary objective, but would like to get a job teaching adults. All of the participants underestimated the length of time necessary to complete the doctorate. There were differences in the reporting of time to completion estimated at the beginning of the program (with males reporting short times), and time of completion projected at the time of the study. Male subjects tended to report that completion will take one year longer than first estimated, while female respondents predicted that they would require up to six years to complete, if not longer. This indicates a difference in men's and women's perception of the program, with men appearing outcome oriented and suggesting that completion was most important, while women took the view that completion was important, but not at the sake of compromising their responsibilities in other areas of their life.

Summary

In this appendix the case study evidence was analyzed to address the initial propositions of the study. A Case Ordered Matrix was developed to display the results and facilitate the search for patterns, commonalities or themes. These commonalities were described in the interpretation of the results and formed the basis for drawing preliminary conclusions. Procrastination Scale Item Statements and Matrix of results were constructed and interpreted. Preliminary observations were a first attempt to derive meaning from the responses, and the method by which they were derived adds to the chain of evidence required for verification.