Mature Students in the Persistence Puzzle:

An Exploration of the Factors that Contribute to Mature Students' Health, Learning, and Retention in Post-Secondary Education

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Executive Summary

Purpose

This research was conducted to gain in-depth knowledge about mature[1] students' persistence[2] in a university-college environment, with the ultimate aim of informing institutional student retention policies and practices. The specific purpose of this exploratory study was to broaden and deepen our understanding of the multifaceted nature of mature students' lives and those factors exerting important influences on mature students' educational commitment and persistence. Of particular interest were those quality of life dimensions and relevant contextual factors that are associated with mature students' decisions to persist or withdraw in their first year of post-secondary education. This research is important, as there are few studies that take into consideration adult learners' unique life circumstances and educational challenges, and fewer still that explore adult quality of life influences on student retention.

The research project addressed two research priorities of the Canadian Council on Learning, namely, *Barriers and Motivators* to adult learning (by examining factors that facilitate or impede mature students' success) and *Outcomes* (by focussing on adults' unique and varied educational goals and aspirations). With adult learners constituting increasing proportions of the student population in post-secondary institutes, and given the escalating demand for accountability in this sector, there is a renewed emphasis on student retention and attrition research. Research at the university-college level offers an excellent opportunity to determine the challenges that adult learners face in post-secondary settings, along with the need for responsive campus programs, services, and resources.

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[1] For the purpose of this study, mature students are broadly defined as individuals who are 25 years of age or older taking degree-level courses and who have adult life roles and circumstance, flexible enrolment status, and varied educational goals and intentions.

[2] The term, 'persistence,' was deliberately chosen for this study to place emphasis on the experience of learners and to distinguish it from the term, 'retention,' which focuses on institutional responses. The definition is also not limited to credential completion, but includes a diverse range of students' educational goals and aspirations.

Research Design

Mature Students in the Persistence Puzzle explored the relationships between health-promotive environments and adult learners' educational commitment and persistence, placed within the conceptual framework of adult quality of life. Mixed methods were used for studying adult learners' quality of life and retention in the first year of general arts and science programs in a university-college environment. This included a phenomenological inquiry into mature students' first-year educational experiences, a focus group with faculty members teaching introductory arts and science courses, and secondary analyses of the age-aggregated data of the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes to examine the major determinants of adult learners' educational commitment, confidence, satisfaction, and persistence.

Summary of the Findings

Eight main themes emerged from the qualitative data analysis focusing on: a) major life transitions; b) multifaceted educational goals; c) awareness of personal assets; d) relationships with professors; e) peer relationships; f) life-role conflicts; g) supportive institutional infrastructure; and h) experiential learning opportunities. In summary, all participants exhibited a strong commitment and desire to achieve their educational goals that were often broader and more varied than conventional degree attainment. The most influential contributor to students' successful integration into university-college life was their relationship with professors.

The results from the Faculty Focus Group corroborated the main findings from the individual student interviews. In particular, faculty members acknowledged that mature students are more diverse, discriminating, determined, and goal-directed than their younger counterparts. Faculty members placed a similar emphasis on the importance of student-faculty relationships as a means to instill confidence and to support students' academic progress. It was also evident that faculty members give serious attention to incorporating experiential learning opportunities into their classroom activity and course designs. There was recognition

that active teaching and learning practices validate mature students' life experiences and prior learning and have positive impacts on mature students' learning outcomes.

Results from the statistical comparison of the self-reported persistence, commitment, confidence, and satisfaction ratings for traditional and mature students showed that mature students appeared to be less inclined to change their programs and were more determined, confident, and satisfied with their faculty relationships and classroom experiences than their younger counterparts. When viewed in relation to the detailed accounts of students' personal assets and their positive post-secondary experiences, there was evidence to suggest that faculty and staff have a strong role to play in reinforcing the advantages of mature students' significant life experience and academic strengths. Student participation and group interaction were considered especially important during the crucial first semesters.

Standard multiple regression analyses were performed on the age-aggregated data of the 2005/06 Pan-Canadian Study. Overall, study findings revealed that goal orientation, perceived relevance of studies, student-faculty relationships, and financial concerns were the most influential contributors to mature students' educational commitment and persistence. The implications for faculty, student development staff, and educational leaders are discussed, along with practical strategies for creating and maintaining a health-promotive campus environment to optimize adult learners' quality of life and retention.

Acknowledgements

Introduction

In their critical analysis of the state of research into student retention and non-completion, several researchers have positioned the empirical and theoretical deficits that exist, particularly in relation to nontraditional, or mature student persistence (Andres & Carpenter, 1997; Braxton, 2002; Johnson, 1991; Yorke, 1999). Most of the research is reported to have concentrated on interactionalist models of departure that deal with traditional-age, full-time students in residential post-secondary programs. For the most part, studies have concentrated on the impacts of academic and social integration and have not included subgroup analyses. There now appears to be a concerted effort to "reinvigorate" research to develop a better understanding of the factors that exert important influences on adult learners, who represent a growing segment of our post-secondary enrolments (Braxton, 2002, p.3).

McGivney (2004) summarizes recent data on the retention and non-completion rates of adult students and offers recommendations for increasing adult retention rates in conventional and open learning programs. She states that adults' engagement with education tends to be non-linear, intermittent, and more varied, due to factors that are uniquely associated with their work and domestic and financial commitments; as a result, adult learners are often studying part-time, attending institutions that are close to home (regardless of program choice and quality), and experiencing a lack of confidence in their ability to succeed after long lapses in formal learning (McGivney, 2004, pp. 33-34). Several researchers recommend adapting the campus environment to address adult students' needs and challenges. Kerka (1989) addresses the multiple roles and responsibilities of adult learners and suggests that effective institutional strategies for enhancing mature student retention would include: targeting retention efforts to reflect adults' typical life events and learning patterns; helping adults to clarify their academic and career goals; and recognizing that students' objectives are more varied than degree attainment and measure retention accordingly (p. 2). Conrad (1993) calls for institutions to address policy issues in areas of: curricula (active, goal-oriented and cooperative learning formats); faculty development programs (effective teaching techniques); administrative procedures (flexible offerings); and counselling and support services that meet the needs of adult learners (p. 5). And finally, McGivney (2004) points to the paucity of detailed data on

mature student retention and advocates for in-depth data collection and greater age differentiation to obtain a "true picture of retention and non-completion among mature students" (pp. 34-36).

The current study of mature students' persistence explores the complexity of adults' learning pathways in a university-college setting, using Malaspina University-College—a comprehensive, publicly-funded institution on Vancouver Island—as the research site. The study is based primarily on mature students' own perceptions of the factors that are of central importance to them in remaining committed to attaining their educational goals and aspirations. The focus of this research is studying the broad connections between health-promotive environments and adult learners' educational commitment and persistence, placed within the conceptual framework of adult quality of life. This area remains largely unexamined, as there are few retention studies that explore the contextual experiences of mature students in post-secondary education and fewer still that place emphasis on quality of life influences. A multidimensional model of student persistence has informed this study, taking into consideration the multifaceted nature of mature students' lives and those factors believed to exert the most important influences on students' decisions to persist or withdraw. A discussion of the significance of this study is contained in the Introduction section, along with the definitions of relevant terms, stated purpose, and research questions. An overview of relevant student retention and attrition research has been included in the second section.[3] The rationale for adopting an adult quality of life conceptual framework is presented in the third section, in order to explore the complex interactions between adult learners and their post-secondary environments. A description of the research methodology for conducting the individual interviews, faculty focus group, and secondary data analysis is included in the fourth section, along with the qualitative and quantitative methods and results. And lastly, the conclusions and practical implications for faculty, student development staff, and educational leaders are outlined in the final section of the report.

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[3] A more extensive overview of the theoretical and empirical studies of student retention/attrition and adult quality of life research is available. Interested readers are encouraged to contact the researcher for additional background information.

Significance of the Study

The demographic profile of students in post-secondary education is changing, given the declining pool of traditional-age students, and as members of the 'baby boom' generation move through their career and lifelong learning paths. We are witnessing increased participation of nontraditional learners in post-secondary education, with adult students representing a growing segment of post-secondary enrolments in Canada, the United States, and the United Kingdom. Andres (2004) reports that over the past two decades, full-time university undergraduate enrolment has increased by 20% in Canada, with a similar increase in the community college sector (25%) and much of that growth can be attributed to increased access for nontraditional students, including women, aboriginal people, disabled individuals, and older adults (p. 1). Enrolment rates for adult learners, typically defined as 25 years of age or older, comprise about half of current higher education enrolments in the United States (Conrad, 1993; Jacobs & Berkowitz King, 2002; Kerka, 1995). In the United Kingdom, James (1995) reports that mature students now outnumber school-leavers in higher education.

In addition to the demographic trends, studies consistently show that nontraditional students experience higher rates of attrition and are reportedly less likely to obtain a degree than their traditional-age counterparts (Bean & Metzner, 1985; Chartrand, 1992; Farabaugh-Dorkins, 1991; Johnson, 1991). In relation to critical timing, Grayson and Grayson (2003) report that: "nearly one half of attrition occurs between first- and second year" (p. 6). With adult learners constituting increasing proportions of the student population in post-secondary education, and given the escalating demand for accountability in this sector, educational leaders are seeking information about those factors that precipitate mature students' decisions to persist or withdraw. University-college and college administrators have compelling reasons for developing more effective institutional responses that will have the greatest impact on improving adult learners' experiences. In this context, there is strong support for conducting a study of mature students' persistence, during students' first- and second semesters, to develop a better understanding of adult learners' unique educational needs and challenges.

The student retention literature is replete with studies examining the persistence behaviour of typical high school entrants, with much less emphasis on the experiences of

mature students. Researchers assert that additional studies are needed to identify those factors that have the greatest impact on maintaining and increasing adult learners' enrolment in post-secondary education and we are urged to modify our retention policies and practices to better accommodate this growing segment of our student population. Andres and Carpenter (1997) emphasize the significance of this research, in their overview of retention models for nontraditional students, citing that "mounting pressure for increased accountability by institutions of higher education, together with the changing demographic composition of the student body, have stimulated the development of more detailed and sophisticated retention models—models that reflect the lives of today's post-secondary students" (p. 37).

Malaspina University-College was selected as the single research site for conducting an in-depth exploration of the challenges that adult learners face and the associated need for campus programs, services, and resources that will support mature students in attaining their educational goals and aspirations. It is recognized that the qualitative study findings are not generalizable beyond the immediate institution; however, the identified themes and issues influencing mature students' educational commitment and persistence were expected to provide relevant information for enhancing student retention policies and practices at other post-secondary institutions. Malaspina University-College is a comprehensive, publicly-funded educational institution located on Vancouver Island that was established in 1969 and given degree-granting status in 1995. It offers both university and college programs in the Central Vancouver Island Region, and currently serves over 10,000 full-time students at its main campus in Nanaimo and the satellite campuses in Duncan, Parksville/Qualicum, and Powell River (additional background information is available at http://www.mala.ca/about.asp). The University-College has a vested interest in a study on mature students' retention, as a growing proportion of its student body can be categorized as mature students. The current age profile of students in undergraduate university programs[4] at Malaspina University-College reveals that 38.6% of students in the 2006-07 academic year were 25 years of age or older, with 80% of these mature students enrolled full-time and 20% part-time. This demographic profile appears

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[4] An undergraduate program is a credit-based degree, diploma, or certificate program, excludes non-credit continuing education, career technical, vocational, and trades programs that do not ladder into, or receive credit towards, a degree (Office of Educational Planning, Malaspina University-College, September 27, 2007).

to be a consistent trend across post-secondary institutions in British Columbia (Malaspina University-College, 2007).

Purpose

The purpose of the current study was to explore the individual, institutional, and external factors that are associated with mature students' levels of educational commitment and persistence in post-secondary education, taking into consideration adult learners' unique life circumstances and educational experiences. Of particular interest were those quality of life dimensions and relevant contextual factors that contribute to mature students' intentions to persist or withdraw in their first year of post-secondary education. A phenomenological inquiry[5] was used to explore the lived experiences of mature students in a university-college setting, with a unique emphasis on adult quality of life dimensions. In addition, a faculty focus group was conducted to identify the teaching and learning strategies that support mature students' educational commitment and persistence. To complement the qualitative research findings, secondary analyses were conducted on the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes dataset, using age-aggregated data (Dietsche, 2005). This multi-institutional dataset permitted an analysis of selected background characteristics and interaction and outcome variables that are associated with mature student retention within Canadian post-secondary institutions. Results from the qualitative and quantitative data analyses were used for recommending institutional strategies to enhance mature students' educational commitment and persistence and to create campus communities that are conducive to adult learners' quality of life and retention.

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[5] A phenomenological-hermeneutical methodology was used for the qualitative component of the study to describe and interpret mature students' educational experiences within the broader context of their multiple life roles. The research participants were involved directly in the creation and validation of their interview transcripts and descriptive summaries, and the researcher's biases were identified and incorporated into the study findings.

Definition of Terms

Persistence and Retention

In his recent edited work, Braxton (2002) examines the "departure puzzle," the phenomenon whereby between 25-50% of students entering higher education depart at the end of their first year. He issues a call for reinvigorating research using new theoretical approaches "to learn about colleges and universities as organizations, the college experience of students, and the interpretations students make of these experiences" (p. 1). Building on this theme, the term "persistence puzzle" was adopted for this study to better understand mature students' experiences and the meanings they attribute to their decisions to remain committed to their post-secondary studies. The term, 'persistence,' was also deliberately chosen for this study to place emphasis on the "perseverance and sustained involvement" of learners, and to distinguish it from the term, 'retention,' which focuses on the institution's role in influencing student behaviour (Johnson, 1991; Hagedorn, 2005). A broader definition of persistence was used that was not limited to credential completion, but that was flexible enough to accommodate a diverse range of students' educational goals and aspirations. More refined measures of adult student retention that take into account part-time students, continuing students, transfer students, and non-degree seeking students are discussed in subsequent sections.

Nontraditional and Mature Students

According to Bean and Metzner (1985), a "nontraditional student is older than 24, or does not live in a campus residence (e.g., is a commuter), or is a part-time student, or some combination of these three factors; is not greatly influenced by the social environment of the institution; and is chiefly concerned with the institution's academic offerings (especially courses, certification and degrees)" (p. 489). Chartrand (1992) defines nontraditional students as at least 24 years of age, living off-campus, and enrolled either part-time or full-time. Her research focuses on degree-seeking students who are less than half way through their undergraduate programs when their risk of attrition is highest. While these definitions offer a

convenient way of categorizing adult learners, they do not include other important characteristics that provide the "essence for a more substantive definition"— one that acknowledges the multifaceted nature of mature students' lives and that differentiates them from traditional-age students (The Pennsylvania State University, 1990, pp. 11, 12). The Adult Education and Training Survey conducted by Statistics Canada in 2003 uses 25 years as the cut-off point to distinguish individuals who are pursuing post-secondary education as part of their initial education, from individuals who are pursuing 'second chance' education later in life because they missed out on high-school completion or they did not enter post-secondary education in their youth (Myers & de Broucker, 2006, p. 33). For the purpose of this study, and consistent with extant research, mature students were broadly defined as individuals taking degree-level courses who are 25 years of age or older with life roles and circumstances that typically include financial obligations, family responsibilities, work and community commitments, flexible enrolment status, and varied educational goals and intentions.

Adult Quality of Life

According to Rapley (2003), defining quality of life is a complex task because there are imprecise and inconsistent terms used in ordinary language and in social scientific research. He maintains that one of the key problems in quality of life research is the huge variability of definitions and the interchangeable use of terms, such as happiness, life-satisfaction, and well-being. In addition, the literature includes a mix of objective and subjective estimations of life circumstances and assessments that occur at both population and individual levels. While there is generally broad agreement that quality of life is a multidimensional construct, Rapley (2003) asserts that precise definitions are needed to ascertain its intended meaning and to clarify the purposes for its use.

The Adult Quality of Life Profile, developed and tested by a multidisciplinary team of researchers at the Centre for Health Promotion (CHP), University of Toronto, offered a level of clarity and specificity that was useful as a guide for exploring the factors influencing mature students' quality of life and retention in a university-college setting. For the purpose of this study, the CHP's definition of quality of life was assumed, as:

...the degree to which a person enjoys the important possibilities of his/her life. *Possibilities* consist of both opportunities within a person's life and constraints on a person's life. These life possibilities depend upon the interaction between personal factors and environmental factors... (Rootman & Raeburn, 1998, pp. 119-120)

The application of quality of life constructs was expected to yield in-depth insights into mature students' persistence, by acknowledging and incorporating meaningful contextual factors for adult learners. An overview of quality of life concepts, research models, and educational applications is included in relevant theoretical and methodology sections.

Research Questions

A central research question was used as the foundation for the study, as it allowed for an open-ended exploration of mature students' persistence, namely: "What are the experiences of mature students that contribute to their levels of educational commitment and persistence in the first year of general arts/science programs in a university-college environment?" Two additional and supplementary research questions were used to guide my study and data collection, as follows: "What conditions, processes, and quality of life factors do mature students perceive as facilitators or barriers?" and "What actions should educational leaders take to improve mature students' retention?"

Research questions were addressed by conducting in-depth interviews with mature students to explore students' specific life circumstances, institutional experiences, and external factors that have contributed to their educational progress and persistence. The intent, in every interview, was to pursue deeper levels of meaning through participants' own experiences and perceptions. Participants were asked to consider quality of life issues, family and external life circumstances, academic and social interactions, classroom-based experiences, and institutional resource-use that had contributed to their educational commitment and persistence. Consistent with the nature and intent of this exploratory study, specific hypotheses were not developed for predicting the interactions among the variables included in my age-aggregated analysis of the 2005/06 Pan-Canadian Study. However, the major determinants of mature students' persistence, educational commitment, confidence, and satisfaction were pursued to

complement the results of the naturalistic inquiry and to provide a broader depiction of first-year college experiences across multiple university-college and college settings. As age and the impacts of selected institutional and external variables were the substantive interests of the study, it was not necessary to include the full range of background, entry-level, and interaction variables contained in the 2005/06 Pan-Canadian Study dataset[6].

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[6] There were a total of 347 questionnaire items included in the two web-based surveys of the Pan-Canadian Study of College Students and First Year Outcomes. The surveys were administered on Entry (beginning of the students' first term in August 2005) and on Exit (end of the students' first term in December 2005). The surveys collected information about students' characteristics, attitudes, perceptions, behaviours, and the college interactions believed to promote learning and persistence during the first-year of college.

Review of the Relevant Student Retention Literature

An overview of the major models of student retention and attrition spanning over three decades of research is presented in this section. To accomplish this task, reference was made to several researchers who have summarized the extensive body of research considered most influential in the study of student retention and persistence. A cross-section of research was used to emphasize the need for new theoretical directions and methodological approaches to explore the complexity of adults' educational experiences and to address the identified gaps in current student retention and attrition research. The main claims and limitations of these models are positioned to advance the argument for using more holistic approaches for understanding mature students' persistence in the context of their individual, institutional, and external realities. This background was used to build the case for adopting an adult quality of life conceptual framework for the current persistence study that is attuned to the multifaceted nature of adults' lives. The aim was to provide a more accurate and complete portrayal of the contextual factors that influence mature students' commitment and persistence experiences in university-college and college environments. The overview of student retention and attrition models was designed to show the evolution toward more holistic and contextualized approaches. This was presenting by summarizing relevant research articles under the headings of Student-Institution Integration Models, Multidimensional Models, and Quality of Student Life Models.[7]

Student-Institution Integration Models

The majority of retention models in higher education have been associated with traditional-age student attrition, and have focused on student-institution 'fit,' including student background characteristics and institutional experiences that affect their compatibility (Andres & Carpenter, 1997, p. 17). Most of this research is based on Tinto's (1975) interactionalist

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[7] In preparing a synthesis of the student retention/attrition research literature, I am indebted to several researchers who have summarized the major theoretical and empirical research findings from the voluminous body of student retention and attrition research (Andres, Andruske, & Hawkey, 1996; Andres & Carpenter, 1997; Braxton, 2002; Johnson, 1991; Pascarella & Terenzini, 2005; Yorke, 1999).

theory of student departure examining the influences of academic and social integration on student persistence or withdrawal. Tinto hypothesized that several characteristics influenced students' goals and levels of institutional commitment and that the student-institution fit was predictive of students' decisions. Tinto's research has enjoyed near "paradigmatic stature" in the field of higher education since its original inception (Braxton, 2002, p. 2). In his overview of the stages of student departure, Tinto (1988) describes the longitudinal nature of the integration process as having three distinct stages—separation, transition, and incorporation—through which new students must pass toward persistence, along with the attendant challenges and difficulties that can arise for students at each stage. To test the validity of these stages, Tinto (1988) calls for studies to determine whether the process of student departure varies over time (p. 450); he also identifies the need for qualitative studies to "explore how students understand the temporal quality of their college careers" and he poses the question for future research, "do older students and/or foreign students understand the temporal quality of persistence in the same way as do other students?" (p. 451).

In his later work, Tinto (1998) places emphasis on the institutional conditions that enhance student retention. He makes the case that much of the student retention research focuses on programs and student support services that are designed to enhance the likelihood of students persisting to degree completion, while largely ignoring the academic organization. He claims that the more academically and socially involved students are, through the frequency and quality of contact with faculty, staff, and students, the more likely they are to persist; he also asserts that "involvement matters most during the first year of college," when attrition is greatest (Tinto, 1998, p. 169). He recommends that colleges and universities use these findings to guide "educational and organizational reform," such as: adopting a community model of academic organization to promote "shared, connected learning"; reorganizing the first year as a "distinct unit" with its own administrative and organizational structure; and reassigning faculty to allow them to instruct across "disciplinary and departmental borders" (Tinto, 1998, p. 170).

In their synthesis of studies conducted between 1989 and 2000, Pascarella and Terenzini (2005) amassed an expansive amount of research assessing the environmental influences on student learning and cognitive development. In the period between their earlier publication

and their most recent comprehensive review, the authors document a number of new trends and changes, including: "rapid increase in student diversity" and corresponding studies; inclusion of community college research; "new bodies of evidence on teaching, instruction, and learning;" new lines of policy research into the impacts of costs, student diversity, and technological advances; and a broader range of "methodological approaches for estimating and understanding the impact of college on students" (Pascarella & Terenzini, 2005, p. 5). Of particular interest was the more prominent role assigned to student-faculty interactions and the innovative instructional approaches that were linked to student learning and development changes. As an example of this increased interest in how students learn, Kuh and Hu (2001) tested a "general causal model of environmental influences" (p. 314) to examine the "frequency and nature of student-faculty interaction" and its relationship to student learning and personal development outcomes (p. 310). Their results showed that interactions between students and faculty that are based on "substantive matters" (p. 328)—interactions with an intellectual, or course-related focus—encourage students to "devote greater effort to other educationally purposeful activities during college" which in turn have positive effects on learning outcomes and student satisfaction (Kuh & Hu, 2001, p. 329).

In a Canadian study examining the first-year experiences of students enrolled in science, arts, and extension programs at a non-residential, commuter university, Grayson (1994) compared all three groups against desired student outcomes (retention, grades, and intellectual development). He collected three kinds of data hypothesized to influence these desired outcomes, including: out-of-class contact with faculty; academic and social links established, and positive classroom experiences. The study is limited to descriptive statistics comparing all three student groups, with no in-depth analyses. However, the recommended strategies for maximizing student-faculty contact, increasing academic and social involvement, and enhancing classroom experiences are useful for helping students cope with the academic and social challenges of first year.

In an interesting comparative study, Strauss and Volkwein (2004) examined the predictors of institutional commitment of first-year students at 2-year and 4-year public institutions. The researchers defined student commitment as: students' overall satisfaction,

sense of belonging, perception of educational quality, and willingness to attend the institution again. The study attempted to address the gap in research by using an outcome model (combining concepts from other models) that includes organizational influences and examined 2- and 4-year institutions in-depth. A cross-sectional research design was used with secondary analyses from a large multicampus database. Reported results showed that academic integration and growth (in particular classroom experiences) and social integration and growth (social activities and friendships) were especially strong predictors of student commitment. Differential impacts were noted for 2- and 4-year institutions, but they were not as great as expected. With respect to institutional comparisons, first-year students at 2-year institutions were reported to have slightly higher commitment scores, and classroom experiences were more influential predictors at 2-year institutions. In contrast, social integration was reported to have more impact at 4-year institutions. In a similar vein, Pascarella and Chapman (1983) used a multi-institutional path test of the validity of Tinto's model for 4-year residential institutions and 2-year commuter institutions. Differences were reported with social integration showing a stronger influence at 4-year campuses and academic integration exerting more influence at 2- and 4-year commuter institutions. The implications for practice, with the suggested focus on student's classroom experiences at smaller, 2-year commuter institutions, is particularly relevant given Malaspina's unique university-college status.

In attempts to enhance the application of Tinto's interactionalist model to non-traditional student populations, Bean and Metzner (1985) developed a model that was consistent with Tinto's conceptualization of academic and social variables, with one major difference. Bean and Metzner (1985) gave prominence to environmental factors that are external to the post-secondary context, such as: finances, hours of employment, outside encouragement, family responsibilities, and opportunities to transfer (p. 502). They posited that social integration variables would have only "minimal effects" on non-traditional students' attrition, and that environmental variables would have greater impacts (p. 530). Based on their extensive review of the research literature, Bean and Metzner (1985) concluded that further research is needed with non-traditional students that would emphasize "students' external environments" and that would use "multivariate research designs" and separate analyses for

"subgroups of students, such as part-time or older commuter students" (p. 528). In more recent reviews of the interactionalist literature, researchers have suggested that the best understanding of attrition is afforded by combining the student integration model with the student attrition model of Bean and Metzner (Grayson & Grayson, 2003, p.18). This conclusion is supported by Pascarella and Terenzini (1998) who recommend the use of a "broad repertoire of approaches" (p. 155) to accurately portray the impacts of college given the "demographic sea change" of student diversity evidenced in recent years (p. 154).

A sampling of the studies that build on Tinto's student-institution fit model were highlighted to show the interaction between students and their institutions. While these research studies integrate various perspectives of interest, they are limited by an almost exclusive focus on outcome models and the use of student and institution levels of analysis. It was the practical applications and the thoughtful discussion about how such practices could impact mature students' persistence that were the most useful for framing the current research.

Multidimensional Models

Models that are multidimensional depart from the traditional and almost exclusive emphasis on student-institution fit conceptualizations, and they appear to hold greater promise for application to nontraditional student populations. In their study of post-secondary student life across three post-secondary institutions in British Columbia, Andres, Andruske, and Hawkey (1996) conducted an action research project with small groups of students to examine their first-year post-secondary experiences. They drew attention to the fact that the predominant student retention models were designed to assess persistence patterns of younger students and that "they disregard the demographic heterogeneity of today's student population" (p. 4). Their study offered interesting insights into the multiple realities and roles of mature students and their impacts on student success. Focus groups were conducted with small groups of students at three post-secondary institutions (one community college, one university-college, and one university) to share their experiences in negotiating their first academic semester. In addition, interviews were conducted with faculty, administrators, and staff to obtain

perceptions of student success and to explore the nature of institutional impact on student success. Results revealed that student success is a multidimensional concept when approached from the experiences of students, faculty, administrators, and staff and that "a dynamic relationship exists between students as agents within the institution and the institution (its people, policies and practices) itself" (p. 126). The authors argued that the variations of Tinto's model, with a primary focus on academic and social integration, do not adequately address "the complexity of students' lived lives" (p. 4). To address these limitations, Andres, et al. (1996) recommended use of Benjamin's (1994) Quality of Student Life (QSL) model to capture the "complex and multileveled nature and multidetermined outcomes of students' lives" (1996, p. 5). Benjamin (1994) provided a review of the four leading models of QSL and put forward an alternative ecological model—a model for studying the relationships between people and their surroundings—that stressed the need to consider on- and off-campus contextual factors. Benjamin (1994) conducted a pilot study at the University of Guelph to create a taxonomy of student life domains and subdomains relevant to QSL and he later tested this model with typical 3rd- and 4th-year students (Benjamin & Hollings, 1995). The over 300 variables in life domains/subdomains included both on-campus and off-campus environments in attempts to assess student satisfaction and happiness. The ecological model recognized the reciprocal relationship between the student and the institution and focused on personal meaning structures. Benjamin (1994) also emphasized the importance of "method triangulation" for "maximizing study validity," drawing on the strengths of qualitative student interviews, as well as quantitative retrospective surveys (p. 248).

McKeown, MacDonell, and Bowman (1993) provided strong support for developing a theoretical framework that takes into account the students' point of view. They advocated for research that attempts to "understand the actions of students in terms of the meanings things in their world have for them" (p. 65). The authors maintained that theoretical understandings of attrition should be grounded in students' experience, stating that a "good deal could be gained by starting with a much better sense of student life and the goals and priorities which prevail in that life" (McKeown et al., 1993, p. 76). They also recommended giving attention to the dynamics of student-faculty contact, suggesting that faculty perspectives are important in

this context. The authors' recommendations for future research and their proposed research questions were helpful for situating the proposed research in relation to the goals, values, and priorities of mature students, and for supporting the inclusion of faculty perceptions.

It would appear that no variables in isolation can account for mature students' persistence and that it is the unique and complex interplay of various factors that will provide helpful insights into mature students' experiences. For instance, it may be that mature students' persistence will be best understood in relation to some combination of external circumstances, academic performance and expectations, and student integration experiences. Qualitative, exploratory methods offered the best means to reveal interrelated themes for further exploration and analysis.

Quality of Student Life Models

There is a strong tradition of research into the quality of student life in elementary and secondary school settings that measures individual-level, subjective indicators of well-being, satisfaction, and happiness in relation to specific school domains and pragmatic areas of concern. Key concerns stemming from social inequalities that can be linked to educational outcomes for disadvantaged groups have been the motivating force behind this school-based, quality of student life research. The school reform movement in the United States was founded on the interdependent relationship between healthy school communities, students' healthy development, and academic success. Marx, Wooley, and Northrop (1998), in their overview of the concepts and steps for implementing coordinated school health programs, pointed to the "inextricable link" between students' health and their ability to learn (p. xv). The theme of school connectedness permeates the literature on school health and is broadly described as a student's relationship to school. Libbey (2004) provided a synthesis of the expanding literature on school engagement, school attachment, school bonding, school climate, school involvement, and school connectedness. Libbey (2004) outlined nine consistent themes for operationalizing student relationships with school, including academic engagement, belonging, discipline/fairness, extracurricular activities, school enjoyment, student voice, peer relations, safety, and teacher support (p. 278). She concluded that, irrespective of the constructs and

measures used, students who feel connected to school fare better "functionally" and "affectively" (Libbey, 2004, p. 282).

In recent years, there has been increased interest in applying quality of student life concepts and measures to post-secondary settings. Much of the growing body of research has involved designing and statistically testing instruments for measuring global indicators of life satisfaction, happiness, and well-being in relation to various student life domains. Chow (2005) administered the Satisfaction with Life Scale to examine the general well-being, educational experiences, and academic performance of a sample of predominantly young, undergraduate students at a Canadian university. He conducted a regression analysis to identify the major determinants of students' life satisfaction. Results showed that those with a higher socio-economic status obtained a higher grade point average, and those who were more satisfied with their academic experience, self-esteem, relationship with significant other, and living conditions expressed a higher level of life satisfaction. Recommendations focused on using study findings to design "interventions and support services that might serve to enhance the quality of life for university students" (Chow, 2005, p. 146).

In a Canadian university context, Michalos and Orlando (2006) reported that Student Quality of Life Surveys are administered annually as an in-house monitoring and assessment tool. Data were recently aggregated from seven surveys from 1998 through to 2005, based on five overall satisfaction and happiness indices (e.g. satisfaction with life as a whole, satisfaction with overall quality of life, overall happiness), six life domain variables (e.g., housing, family relations, friendships, recreation, financial security), and seven university-related items (e.g., instructors, course offerings, student services, library services). Regression results showed that the university domains have no impact on explanatory power when added to the life domains. However, among the university-related variables, satisfaction with instructors was the most influential predictor of students' overall perceived well-being. In a similar vein, self-reported well-being was compared for university students in Canada and the United States to examine changes over the two separate sampling periods in 1984 and 1992 (Staats, Armstrong-Stassen & Partilo, 1995). The Satisfaction and Happiness Survey that was used measured global indicators of satisfaction and happiness, as well as self-perceptions in eleven life domains. The

unique feature of this study was that it assessed "then and now" comparative discrepancies in areas of perceived change to capture student ratings of being better or worse off now than 10 years ago (Staats, et al., 1995, p. 97). Results for the change indicators showed that there were decreases in perceived student well-being over the two sample periods, and self-esteem and social support were significantly and strongly related to the perceived discrepancies. The connection between social support and happiness was discussed in relation to theories of student retention and attrition. Staats et al., 1995, cited the need for "new forms of student integration and social support groups" to improve student well-being at the university level (p. 109). It should be noted that the students' mean age ranged from 19.4 to 23.4 years, indicating a relatively young sample, and that the implications of social support and integration for older students was not specifically addressed.

In a large-scale European survey of student satisfaction with the quality of teaching and learning, broader aspects of students' learning experiences were studied. Wiers-Jenssen, Stensaker, and Grogaard (2002) expanded the traditional focus on perceptions of academic quality to include factors associated with teaching quality, support facilities, physical infrastructure, social climate, and leisure activities. Results showed that satisfaction with the teaching and social climate were important determinants of students' overall satisfaction and well-being, which were both seen as factors that could be manipulated by higher education institutions. Recommendations were put forward for increasing the resources directed at "first-level service of the institution" that would reduce student-teacher ratios, provide extended individual guidance and academic feedback, and generally improve learning conditions for students (Wiers-Jenssen et al., 2002, p. 192). In addition, the researchers suggested that the model be used to stimulate and support the social features of students' learning experiences. They concluded that broader-based student satisfaction surveys are important tools for improving students' learning experiences, as well as offering a market-oriented instrument for "adjusting and adapting higher education institutions to a changing and tougher economic reality" (Wiers-Jenssen et al., 2002, p. 194).

Several researchers have studied quality of university student life in relation to measures of affective and cognitive domains (Pilcher, 1998; Roberts & Clifton, 1992; Clifton,

Etcheverry, Hasinoff, & Roberts, 1996; Cohen, Clifton, & Roberts, 2001). A group of researchers in a Canadian university context focussed on designing and validating scales to "create better instruments" for measuring the quality of students' intellectual lives in universities (Clifton, Etcheverry, Hasinoff, & Roberts, 1996, p. 49). Clifton, et al. (1996) used sophisticated statistical techniques to enhance the content and construct validity of their quality of life scale and advocated for its use to explore the correlates, causes, and consequences of quality of life measures in relation to student, department, and faculty characteristics. Recent studies have expanded this focus on replicating and validating existing quality of life scales because of "deficiencies in conceptualization and/or the unsophisticated statistical techniques" used (Cohen et al., 2001, p. 63). However, there were two notable exceptions to this emphasis on re-analyzing existing instruments and increasing the power of statistical techniques. Pilcher (1998) used the Satisfaction with Life Scale (SWLS) to examine the extent to which affect and daily events can predict overall life satisfaction in college students. Her results showed that an increase in subjective life satisfaction was predicted by decreases in depression, negative affect, frequency of illness, and increases in vigour. This research was interesting in that it included self-reported measures of both psychological and physical health to investigate the relationship between health and life satisfaction. However, there were no theoretical or empirical links made between subjective life satisfaction and college students' retention and attrition outcomes. In addition, as Pilcher (1998) herself points out, the research was carried out with young, healthy college students and further research would be needed to "better define the predictors of life satisfaction across the lifespan" (p. 303).

Another study focussed on incorporating concern and importance ratings into their prediction model. Disch, Harlow, Campbell, and Dougan (2000) included 10 high concern areas into their Student Quality of Life and Satisfaction (SQOLAS) instrument. The results of their regression analysis showed that positive attitudes toward one's future direction in life could be predicted by higher levels of socio-personal satisfaction, cognitive processing, and lower levels of alcohol use and mental health concerns. In addition, students' highest rated concerns were related to career and employment, use of time, and consumer and finance issues. Disch et al. (2000) concluded that their model established important links between concern and

importance areas and functioning and performance variables. While this research was focused on improving the psychometric properties of existing instruments, it did incorporate self-rated importance and concern areas. However, it can be argued that the student needs and concerns—especially those associated with high-risk behaviours—reflect the preoccupations of typical high school entrants and are less applicable to nontraditional student populations.

In an interesting departure from studies that measured overall quality of life adapted for use with college students, Sirgy, Grzeskowiak, and Rahtz (2007) developed and validated a well-being measure that was focussed specifically on the college life domain. This was the first survey-based research encountered that measured students' satisfaction with specific aspects of college life using constructs that had been informed by focus group discussions with a class of undergraduate students. The convenience sample included primarily traditional-age students enrolled in undergraduate business-related courses in three diverse post-secondary settings. Sirgy et al. (2007) defined quality of college life as the "overall feelings of satisfaction a student experiences with life at the college" in relation to both the academic and social aspects of life on campus, and as influenced by college facilities and basic services (p. 346). Their hypotheses were that the greater the student's satisfaction with the academic and social aspects of college, the higher the student's quality of college life; and the greater the student's satisfaction with the facilities and services, the higher the student's satisfaction with the academic and social aspects of the college. The intent of the research was to develop a quality of college life measure that could be used for identifying and addressing institutional problem areas. Specific mention was made of the diagnostic and administrative uses of quality of college life results to initiate improvements for attracting and retaining minority and at-risk students. Sirgy et al. (2007) also referred to the broader health-related implications, whereby college administrators could use quality of college life measures for "monitoring the social health of their institutions" (p. 358). The researchers emphasized the importance of focussing on college life domains representing specific academic, social, and institutional factors that were based on selective college student perspectives; however, the conceptualization and measurement of quality of college life, and the practical applications derived from the research, were not informed by theory-based research nor representative sampling methods.

Most of the quality of student life studies that were cited used scales that were based on global indicators of life satisfaction, happiness, or well-being. The concepts and their measures did not explore important links between health, relationships, school connectedness, and student retention in a post-secondary education context. There were no studies found that included naturalistic inquiry methods to explore the meaning and significance of the various concepts and domains investigated. The main emphasis was on designing and testing existing tools for their theoretical and empirical validity, with little attention to their ecological significance. In addition, the studies were focussed on traditional-age samples with interventions and conclusions that largely ignored mature students. Based on this overview, it was determined that there was scope for learning lessons from the school health movement, particularly with respect to making more explicit links between health and learning. In addition, it was considered important to adopt qualitative methods for exploring the lived experiences of mature students to make an important contribution to the quality of student life research. To address this opportunity, the scope of the current study was broadened by blending qualitative and quantitative methods, and by adopting an adult quality of life conceptual framework that was grounded in adult learners' experiences and that focused on the dynamic interactions between individuals and their environments.

Conceptual Framework

Adult Quality of Life

One of the main goals of this study was to explore mature students' quality of life and retention in post-secondary education using a conceptual framework and research methods that were grounded in adult learners' lived experiences. An adult quality of life conceptual framework allowed a more integrated and complete conceptualization of adult learners' educational experiences than conventional student retention and attrition models.[8] The fundamental principles and core components of adult quality of life were used to emphasize the dynamic interplay of individual, institutional, and external factors and to recognize their joint influence on mature students' quality of life and retention.

The quality of life guiding principles proposed by Brown, Renwick, and Nagler (1996) that were selected for educational application in the current study included:

- Quality of life is a multidimensional construct.

- Because quality of life arises out of this complex person-environment interaction, a holistic approach[9] is necessary for understanding it.

- The basic components of quality of life are those things that are common to all people and that constitute the human condition.

- Although the basic components of quality of life are the same for all people, the meaning attached to quality will differ to varying degrees from one person to another. This is because individuals attach differing relative importance to the basic components of quality of life and have differing opportunities and constraints within their lives.

<div align="right">(pp. 10-11)</div>

The aforementioned quality of life guiding principles were adopted for the mature students' persistence study, given the emphasis placed on the interaction between the student and the

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[8] An in-depth summary is available of the research that formed the foundation of my conceptual framework representing the fields of adult learning, student development, and health promotion. Interested readers are encouraged to contact the researcher for additional background information.

[9] The holistic approach used to conceptualize quality of life considers the interrelated aspects of a person's life, including the physical, psychological, social, and spiritual dimensions.

educational setting, the complex and multifaceted nature of mature students' lives, and the focus on personal meaning structures.

Renwick and Brown (1996) outlined the conceptual approach to quality of life that was developed by a multidisciplinary team of researchers at the Quality of Life Research Unit at the Centre for Health Promotion (CHP) Research, University of Toronto. These developments were part of the Quality of Life Project that was funded by the Ontario Ministry of Community and Social Services. The foundational definition of quality of life was based on fundamental health promotion concepts that consider "the degree to which the person enjoys the important possibilities of his or her life" and addresses the ongoing interaction between persons and their environments (p. 80). The CHP conceptual approach included three fundamental areas of life in which life possibilities occur and they are considered core components of quality of life, namely, *Being*, *Belonging,* and *Becoming*.

> Being encompasses the most basic aspects of who people are as individuals. Belonging is concerned with the fit between individuals and their various environments. Becoming focuses on the purposeful activities in which individuals engage in an attempt to realize their goals, aspirations, and hopes. (p. 82)

In the CHP conceptual approach outlined by Brown, Raphael, and Renwick (2002), the extent of a person's quality of life in the areas of *Being*, *Belonging*, and *Becoming* is determined by two factors: importance and enjoyment. Thus, quality of life consists of the relative importance or meaning attached to each particular dimension and the extent of the person's enjoyment with respect to each dimension. In the CHP Quality of Life Model, quality of life is adapted to the lives of all humans, at any time, and from their individual perspectives. The Quality of Life Model is also sensitive to the specific life situations of individuals and it addresses the quality of the environment in which the person lives (Brown et al., 2002). The Quality of Life Model is used to explain how a quality environment provides for basic needs to be met (food, shelter, safety, social contact). It also describes the range of opportunities that are within the individual's potential, and how control and choice operate within that environment (University of Toronto, Centre for Health Promotion, n.d.).

The CHP framework provided the theoretical base for several instruments to measure the quality of life for various population groups, including persons with disabilities, seniors

living in the community, adolescents, and the general adult population (Renwick & Brown, 1996, p. 85). The instruments were developed as a guide for designing environments that promote quality of life, and as a tool for identifying areas that need improvement (Renwick & Brown, 1996, p. 86). Recent contact with the Quality of Life Research Unit confirmed that the adult-oriented instrument had not been tested with adult populations in post-secondary settings, and that this would make an important contribution to adult quality of life research. While the quality of life scale was not administered in the individual interviews, the three core components of the Profile and their associated areas of life were used as a guide for designing the interview protocol in the current study. The core components of *Being*, *Belonging* and *Becoming* were also used to classify and interpret the emergent themes from the qualitative interviews. The subcomponents of *Belonging* and *Becoming*, as well as the concepts of control and possibilities, were considered to be particularly relevant to mature students in post-secondary settings[10]. In summary, an adult quality of life conceptual framework was used for the exploratory study that was multidimensional, ecologically-oriented, and attuned to adult learners' specific life contexts. The research placed particular emphasis on assessing the health-promotive capacity of a specific university-college setting to identify targeted actions for improving mature students' quality of life and retention.

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[10] Further information describing the three life domains of *Being, Belonging and Becoming*, along with a definition of their nine subdomains, can be accessed on the web at: http://www.utoronto.ca/qol/concepts.htm

Research Methodology

Mixed methods were used for studying mature students' persistence, incorporating both qualitative and quantitative approaches into the research design. The primary emphasis was on conducting a phenomenological inquiry into those factors that contribute to adult learners' quality of life and retention in their first year of university-college life. A copy of the Adult Quality of Life Profile was obtained from the Centre for Health Promotion, University of Toronto (Brown, Raphael, & Renwick, 2002). The key constructs and components of the Adult Quality of Life Profile were incorporated into the data collection and interpretation protocols, given their relevance to adult learners in post-secondary settings. As outlined in the Adult Profile, it was also expected that a quality university-college environment would provide for a range of opportunities within the individual's potential, while also allowing for control and choice within that environment.

Secondary analyses were conducted on age-aggregated data from the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes. The quantitative data were intended to complement the phenomenological inquiry by outlining the broad dimensions and predictors of mature students' intent to persist/withdraw, as well as their educational commitment, confidence, and satisfaction. In this way, detailed findings from the in-depth interviews could be viewed in relation to the broad-based portrait resulting from the secondary analysis on the large college sample. Research methods, data analysis procedures, and results are outlined separately for the qualitative and quantitative components of the research.

Qualitative Methods and Results

As the intent of the study was to broaden and deepen our understanding of mature students' educational commitment and persistence, a phenomenological inquiry was conducted with first-year students in degree-level studies at Malaspina University-College. A focus group with faculty members was included in the research design to explore the interplay between students and faculty and its influence on students' academic attainment and retention. In addition to contributing to the exploratory nature of the study, the Faculty Focus Group was also adopted as a data triangulation method for enhancing the relevance of research findings. The qualitative methods and results are reported under the headings of Phenomenological Inquiry and Faculty Focus Group.

Phenomenological Inquiry

Participant Selection

Purposive sampling techniques were used to identify participants who were 25 years or older and who were enrolled in their first year of general arts and science degree programs at Malaspina University-College. Gender, age, and enrolment status criteria were used to obtain equal numbers of males and females, and to include representation from young (25-34 years), middle (35-44 years), and older age (45+ years) cohorts, as well as part-time and full-time students. The base for choosing an age-stratified sample was the student lists for entry-level, arts and science course clusters, as well as the current rosters of unclassified students. Course clusters are a supportive enrolment technique for creating a natural cohort of first year students. The clusters permit incoming students to register for three or more typical introductory courses that are conveniently timetabled together. Unclassified students are primarily those with undeclared programs of academic study. From Malaspina's enrolment management data, and as corroborated in the general retention literature, students in open programs with undeclared majors are considered more at-risk for attrition, or premature departure, than the general student population. While it was understood that results would not

be generalizable, it was anticipated that the interviews would surface relevant themes and issues for informing institutional student retention policies and programs.

The total population of students aged 25 years and older, drawn from the course cluster and unclassified student lists, was 46. All students aged 25 years and older were emailed a notice of the intent of the study with an invitation to participate and letters of invitation were sent to these same individuals providing additional background details about the study (see Appendix A for the Participant Letter of Invitation). Both letters and emails stated that follow-up telephone calls would be used to request their involvement. All participants were offered a $25 bookstore voucher as an honorarium, with the added incentive of having their names entered into a draw for a 1GB flash drive at the end of the study period. In addition to the sampling criteria used, the sole basis for inclusion in the study was that students were willing and able to share their in-depth stories of their first-year university-college experiences.

Of the 46 potential participants, a sample of 10 study participants was obtained within a 3-week period. Eight participants responded directly to the emails and letters of invitation. After receiving this main selection, the sample was further refined by calling selected participants from the combined lists to achieve a balance with respect to gender, and age cohort representation. In addition, an inquiry was made to a colleague at another satellite campus to refer a First Nation student to the study. The help of another mature student was enlisted to recruit a male science student from an introductory astronomy course. This snowballing technique successfully expanded and balanced the sample. In summary, there were eight students drawn from unclassified lists, two from the course cluster lists, and two from referrals. The age range of the 12 students comprising the study sample was 25-72 years, with six students in the 25- to 34-year cohort, one student in the 35- to 44-year cohort, and five students in the 45-year and older cohort. An even gender split was obtained (six males and six females) and there was one First Nation and one International student included in the study sample.

Interview Process

An interview guide was developed based on the literature review and generated from the Principal Investigator's own professional experiences working with mature students (See Appendix B for the Individual Interview Guide). One central research question was created to obtain detailed descriptions of mature students' lived experiences in the words of the interview participants themselves. Two focus questions were also used for uncovering quality of life influences and to solicit suggestions for institutional improvements. Additional questions were included, as needed, for clarification, or to elicit concrete, specific situations or events. Pilot interviews were conducted with two first-year students, a 44-year-old male and a 65-year-old female, to practice the interview questions and to test approaches for creating an open, conversational climate. All participants were given the interview questions before their scheduled interviews to help them focus on the most meaningful aspects of their experiences and to facilitate reflection. Semi-structured, face-to-face interviews were conducted with all individuals to record their personal narratives. Interviews averaged approximately two hours in duration. Students were encouraged to share their thoughts, perceptions, and feelings about being a mature student at Malaspina University-College. When quality of life factors were disclosed, additional questions were asked to place emphasis on Belonging and Becoming dimensions to describe students' connections with their university-college environment and their perceived range of possibilities, personal control, and choice. Throughout the interview, attempts were made to minimize the role of the interviewer and to facilitate the telling of participants' stories.

The University-College Ethics Review Committee approved the study in September, 2006 to ensure the protection of human subjects. All study participants were interviewed during their first semester of studies from December 1 to December 19, 2006. At the beginning of each interview, participants signed a consent form and were informed that their identity would remain confidential (Appendix C). Participants were also asked to create their own pseudonym for use during the recording and transcription phases of the research. This was an insightful and useful step, as it gave a distinctive quality to each interview and served as an effective warm-up exercise for engaging the storytelling process. Interviews were held in a

university-college meeting room on the main campus that was conducive to private discussions. Two participants elected to be interviewed at a satellite campus location for convenience. All agreed to have their individual discussions audiotaped and were willing to be contacted, after the initial meetings, to validate interview content and to share interpretive insights.

Data Collection and Instrumentation

Semi-structured interviews were the primary method used for collecting and analyzing the narrative data. The individual interviews were conducted during a 3-week period at the end of the students' first semester (Fall 2006). Follow-up emails and telephone conversations were completed over a 4-week period in the students' second semester (Spring 2007) to validate the accuracy and comprehensiveness of the individual written narratives, and to elicit additional information about students' academic progress (see Appendix D for the Participant Follow-up Questions).

Giorgi (1975) stated that one of the key aspects of phenomenology is a strict adherence to bracketing-–the process of suspending judgments with respect to all past knowledge and assumptions-–before beginning the investigation. The actual meaning expressed by the subject is made more interpretable, if the researcher's biases and influences are more visible and where the researcher is "engaged and plays an active role in the constitution of the actual data" (Giorgi, 1975, pp. 95, 101). According to Giorgi (1997), one must "bracket past knowledge about a phenomenon, in order to encounter it freshly and describe it precisely as it is intuited (or experienced) [by the subject]" (p. 237). When conducting personal interviews and facilitating the focus group, the Principal Investigator was conscious of bracketing her own experiences to adopt the phenomenological attitude. This process enabled her to view mature students' life stories in a more open, unbiased manner and from the viewpoint of adult learners themselves.

All interviews and the focus group discussion were recorded by the Principal Investigator. The two research assistants that were hired to create verbatim transcripts were mature students with social science and humanities backgrounds. For instrumentation, a portable *iAudio* recording device was used for creating Wav sound files for transcription. The

Stop-Start transcribing system was used by the two research assistants to transcribe all 12 interviews in the Faculty Computer Lab.

Data Analysis

The verbatim interview transcripts were used to explicate themes and to develop a structural text that included individual quotes and preliminary meaning units or 'essences.' When examining the transcripts, the Principal Investigator remained attentive to the thematic elements and patterns that emerged. According to van Manen (1990), phenomenological themes are like "knots in the webs of our experiences, around which certain lived experiences are spun and thus lived through as meaningful wholes" (p. 90). Using a similar analogy, phenomenological themes were seen as the interlocking pieces of the puzzle that provide important connections among adults' various life experiences, and that facilitate a deeper understanding of the multi-dimensional, multi-textured, and multi-layered nature of mature students' lives. Thus, the essential themes that surfaced from the narrative descriptions were viewed as thematic junctures, or interlocking pieces, for discerning and portraying key aspects in the mature students' persistence puzzle.

The phenomenological-hermeneutical research design was informed by phenomenological studies that integrated descriptive and interpretive approaches. Descriptive approaches focus on gathering experiential information in its essential form, without analyzing it, whereas, interpretive approaches gather and analyze data from interview texts to reconstruct intended meaning. A combination of both of these approaches was used to include a description of the intuitive discovery of essences, as well as the reflective analysis of the underlying structures of students' experiences (Lincoln & Guba, 1985; Lindseth & Norberg, 2004; Moustakas, 1994; Richardson, 2000; Valle, 1998). A series of data analysis steps were engaged to extract significant themes and sub-themes from the narrative texts. From these individual descriptions, general meanings, or the essential structures of the mature students' experiences, were captured. As a final step, a composite summary was developed to combine essential meanings into one phenomenological account using the research questions to organize and report the

findings. Five rounds of qualitative data analysis and interpretation were conducted, as summarized in the following steps:

1. Read through the individual, transcribed interview texts several times to gain a holistic sense of mature students' experiences;

2. Isolate the pivotal experiences for each individual, from the narrative texts, using a concept map—a technique for drawing a diagram of related concepts or ideas, using connecting lines and arrows to capture clusters of related meanings and broad themes;

3. Create detailed structural descriptions to describe the nature and focus of each individual's experience, with particular attention to the themes, thoughts, and feelings expressed. An attempt was made to reflect on what participants were really saying about their specific experiences, and how these experiences were affecting their progress towards realizing their academic goals and aspirations;

4. Review all structural descriptions to extract the significant themes and essences embedded in the personal accounts. Identify the most influential individual, institutional, and external factors impacting participants' quality of life and retention; and

5. Create a composite summary as a synthesis of the main themes and "essential" meanings representing the entire group of participants. The summary of common and unique factors was used to depict the major influences on mature students' perceived quality of life and retention in their first year of university-college life (selected quotes are included to portray the essential quality of these experiences). The composite summary represented the essential description, or the core of the persistence experience, and was the final stage of the qualitative analysis. The composite summary was also used as the basis for reviewing the qualitative study findings in the context of relevant themes and issues presented in the existing student retention and attrition literature.

Interview Results

A detailed description of the interview sample is provided, along with the descriptive and interpretive summaries resulting from the qualitative data analysis steps.

Interview Participants

Purposive sampling techniques resulted in a participant sample that was reflective of the diverse range of adult learners on campus. Individual interviews were conducted with 12,

first-year, degree-level students aged 25-72 years at Malaspina University-College. The demographic profile of the interview sample is shown in Appendix E. The sample included equal numbers of women and men with six, one, and five participants falling into the 25-34, 35-44, and 45+ age ranges, respectively. Two thirds of the sample were enrolled in full-time studies, and most students were pursuing a Bachelor of Arts or Education Degree Program. Equal numbers of students reported that their highest education achieved was at the high school/equivalent, certificate/diploma, and undergraduate degree levels, with the time elapsed since their last formal education averaging 15 years. A descriptive profile of the interview participants is included in Appendix F.

Emergent Themes and Essential Meanings

Phenomenological hermeneutical-based approaches were used for interpreting and explicating the data from the in-depth interviews. The analytic process, outlined in the previous section, was applied to the verbatim interview transcripts to develop structural descriptions for each participant. The detailed structural descriptions depicting the experiences, aspirations, issues, and challenges for all 12 participants are available upon request.

A second round of data reduction was used to extract the significant themes and essences embedded in the structural descriptions. A summary of the major individual factors influencing participants' quality of life and retention in the university-college setting is reported in Appendix G. In total, 46 significant emergent themes were extracted from the 12 structural descriptions. These were itemized as 11 Individual Factors, 14 Quality of Life Indicators, 12 Facilitators/Opportunities, and nine Barriers/Obstacles. Listed first are the individual factors that contributed to participants' educational experiences. Using the core components of the Adult Quality of Life Profile to organize and present the data, the individual factors are reported under the sub-headings, *Being*, *Belonging*, and *Becoming,* with an emphasis on participants' ability to enjoy important life possibilities, exercise a range of choices, and exert control over their environment. Finally, a summary is included of the institutional and external factors that were perceived as facilitators/opportunities, and barriers/obstacles to mature students' persistence (see Appendix H).

Composite Description

As a final round of data analysis, a composite summary was developed to provide an additional descriptive dimension to the qualitative inquiry. This level of analysis provided a synthesis of the main themes and essential meanings representing the group of participants as a whole. The composite method provided a means to identify the common and unique factors across all participants' stories that contributed to mature students' persistence, educational commitment, confidence, and satisfaction. While it was a challenge to express how powerful and evocative the interviews were in their entirety, the Principal Investigator included those quotes that best exemplify the themes disclosed. In this way, an attempt was made to convey a vivid sense of what is important to mature students and to highlight the impact of individual, institutional, and external factors on students' self-assessed quality of life and retention in a university-college setting.

Eight main themes were identified from the final data analysis process to complete the composite summary. These themes included: a) major life transitions; b) multifaceted educational goals; c) awareness of personal assets; d) relationships with professors; e) peer relationships; f) life-role conflicts; g) supportive institutional infrastructure; and h) experiential learning opportunities. Sub-themes were subsumed under the eight thematic elements and were illuminated by selected accounts of the 12 participants' stories. The three core components of the Adult Quality of Life Profile—*Being*, *Belonging*, and *Becoming*—were used to form the basic framework for synthesizing and presenting the eight main themes and their essential meanings. The core components provided a valuable guide for delineating the most influential individual factors that define the basic aspects of who students are (*Being*), the institutional factors that describe students' connections with their environment (*Belonging*), and the institutional and external factors that contribute to students' ability to realize their goals and aspirations (*Becoming*).

Being

Theme 1. Re-entry Decisions Were Triggered by Major Life Transitions and a Life-Centred Approach to Education

The one descriptive phrase that best captures participants' reactions to events leading up to their decisions to enroll in university-college, was 'firm resolve and focus through significant life changes.' This thematic aspect emerged naturally in the beginning stages of the interview process when participants were describing how they had applied to Malaspina University-College. Many participants related stories of critical junctures in their lives that 'triggered' the educational decision-making process. In most instances, these decisions were due to unanticipated and involuntary personal situations that ushered in other life changes. Personal reflection, careful pre-planning, and pursuit of clear educational goals characterized the decision-making process for most participants.

Theme 2. Mature Students' Goals Were More Multifaceted and Growth-Oriented than Degree Attainment

Participants eagerly shared their personal reflections on the multifaceted nature of their learning goals and aspirations. While all individuals were highly goal-directed in their educational pursuits, mature students' goals were more varied and expansive than degree completion, and included personal growth and development aspects. In many instances, education was viewed as a life-changing event, as well as an empowering personal experience. The descriptive phrase used to capture this thematic aspect was 'valuing education for its life enhancing qualities.'

Theme 3. An Asset-Based Approach to Learning Contributed to Students' Expectations of Success

This thematic aspect was summarized as 'relying on personal drive and resilience to succeed.' Virtually all participants had insight into how their strong achievement orientation and personal drive to succeed were major motivating influences for completing their studies. Their inventory of personal assets also included a strong work ethic and work-related skills, previous post-secondary experiences, and an optimistic and resilient attitude. Most participants

related stories showing that high levels of motivation and determination were needed to manage the transition to school in the context of other significant life commitments. Often, this was seen as distinguishing them from their younger classmates.

Belonging

Theme 4. Relationships with Professors Were Pivotal in Encouraging and Supporting Academic Performance and Persistence

Apart from academic performance, mature students' interactions with faculty members had the most impact on their educational experiences. The thematic element that figured most prominently in all of the participants' narratives was the nature and quality of their relationships with professors. In fact, relationships with professors was the thematic element considered to be the most influential contributor to mature students' successful integration into their academic milieu. And the descriptive phrase that was used to capture participants' perceptions of its importance was 'being sustained by encouraging, accommodating and inspiring professors.' The majority of participants described situations where their professors were instrumental in instilling confidence, clarifying academic expectations, and offering tangible support and assistance. In most instances, these situations were encountered early in the semester when students were under stress and struggling to complete assignments. An understanding and accommodating response from professors was seen as validating students' decisions to return to school, as well as providing positive feedback on their academic potential

Theme 5. Peer Relationships and a Strong Social Circle Were Important Motivating Influences

An important aspect of students' successful adjustment to post-secondary education was the sense of belonging that students derived from their social support system. Being able to establish and maintain supportive relationships while at school was a critical factor for the majority of participants. Students made specific reference to benefiting from the support of partners/spouses, children, parents, friends, and professors who cared about their academic progress. It was interesting to note that the majority of participants mentioned the importance of having a social circle at school, as opposed to making friends outside of university-college. Having connections with other students on campus, especially within the classroom, was

associated with students' sense of belonging and their feelings of having successfully integrated into the university-college environment. It would appear that participants in the youngest cohort (25-34 years) were seeking opportunities to learn and socialize with their peers, whereas those in the oldest group (55+ years) were content to be surrounded by students representing a mix of ages and life stages.

Becoming

Theme 6. Students' Life-Role Conflicts Contributed to Levels of Stress and Decisions to Continue

The final category, *Becoming*, captures those institutional and external factors that have the potential for making a critical difference to mature students' persistence. Participants revealed that their educational progress was dependent on the following three thematic elements: a) life-role conflicts; b) institutional infrastructure and c) classroom experiences. The descriptive phrase that was used to position the importance of the themes that emerged from the interviews was 'benefiting from a flexible and engaging learning environment.' The success of educational efforts in supporting mature students' persistence was considered to be directly related to the amount of institutional attention given to addressing the general and unique themes as reported in this section. Study participants all encountered the tensions created by balancing school with other life commitments. Female students, in particular, reported that significant family obligations competed for their time, energy, and resources and presented a threat to their continued studies during their first semester. Single parents, main wage earners, and students with eldercare responsibilities were especially affected by these issues. In many instances, family obligations created financial stresses for students, as it was often the case that student loans were either unavailable or inadequate for financial assistance. As a final comment related to managing life-role conflicts, all participants highlighted the importance of receiving support from their partners/spouses, family members, and friends to help solve practical problems when returning to school. In particular, family members contributed essential childcare, tuition support, and shared housing and household tasks.

Theme 7. A Supportive Institutional Infrastructure Was Critical to Continuous Course Enrolment and Timely Degree Completion

Throughout the interviews, participants emphasized specific institutional practices that supported them before, during, and after their enrolment. In fact, references to the institutional infrastructure constituted the main category of themes that emerged from the study. Several participants mentioned aspects of the admission process that enticed them to enroll in Malaspina University-College and that helped them to cope with their immediate entrance requirements. All participants acknowledged the fact that supportive institutional practices helped ease their re-entry adjustment. Some of the most effective techniques that students mentioned were issuing early acceptance letters, granting advanced credits for previous post-secondary education, and providing an orientation to campus facilities and resources. Orientation tours and easy access to educational advisors were frequently cited as resources that helped students manage their critical first weeks on campus. However, not all participants were introduced to these resources and they struggled to cope with logistics on their own.

A strong pattern of academic, financial, and emotional stresses was noted, clustering around the themes of limited course availability and inflexible course scheduling. The majority of mature students spoke at length about the importance of course location and timing that accommodated their work routines, children's school schedules, and their ability to use facilities for studying on weekends and in the evenings. Course location and timing also limited students' access and their ability to remain continuously enrolled in their chosen areas of study. Some students mentioned that they were experiencing delays, because advanced courses were not offered locally, or sequentially, at the satellite campus. Several students registered for a reduced course load in their first semester as a strategy for managing multiple life-roles, making tuition affordable, and developing effective study routines.

Study participants also benefited from infrastructure supports that were more general in nature. Affordable tuition and small class sizes were frequently reported as reasons for selecting the University-College and for choosing to stay. Maintaining a comfortable lifestyle while going to school was also an important decision factor for many mature students.

Participants talked about the advantages of securing affordable housing close to campus, reducing fuel costs by walking or taking the bus, and returning home for lunch between classes.

Theme 8. Experiential Learning Opportunities Intensified Mature Students' Educational Commitment, Confidence, and Satisfaction

Experiential learning–-learning that draws upon the prior experience of learners and that provides opportunities for engaging directly in the learning activity–-is considered an effective learning strategy for mature students. Interview findings showed that a positive group atmosphere and a greater emphasis on experiential learning enriched the learning experience for all study participants. In particular, students mentioned that group discussions and collaborative assignments increased their satisfaction levels and improved their learning outcomes. In addition, several participants referred to the importance of having vibrant professors that stimulated and challenged students' thinking. Participants also linked their professors' ability to create inclusive, stimulating, and enjoyable classes to their satisfaction and commitment levels. Expectations of value for money and effort expended resulted in critical assessments of teaching quality. Participants assumed that they were deserving of knowledgeable, skilled, and well-organized professors.

As discussed previously, extracurricular activities and socializing outside of class were not sought by the majority of participants, due to time constraints and compressed schedules. For instance, students taking three-hour courses one night a week while fulfilling busy work and family responsibilities were not predisposed to spend additional time on campus. However, most participants mentioned that they appreciated having active learning opportunities that were integrated directly into course designs (e.g., field trips, theatre reviews, and library orientation sessions). And in a similar vein, several students took advantage of opportunities to expand and enrich their educational experiences.

Summary

The eight main themes that emerged during the final level of qualitative data analysis form a richly-textured composite of all participants' stories. For the three themes included under the *Being* category, a life-centred, goal directed approach to education was the defining

characteristic. All participants exhibited a strong commitment and desire to achieve their educational goals that were often broader and more varied than conventional degree attainment.

Relationships with professors and peers were the two thematic elements comprising the *Belonging* category. However, the most influential contributor to students' successful integration into university-college life was their relationship with professors. The majority of participants recounted instances when they relied on the caring and instrumental support of their instructors to boost their confidence and to support their continued academic progress. For the most part, participants' social connections at school were centred in the classroom and contributed to students' sense of belonging. Many students indicated a preference for socializing with peers and conveyed feelings of being disconnected and segregated from their age group. However, there appeared to be age-related differences, with younger participants seeking opportunities to connect with peers and older participants expressing an interest in studying in mixed age groups.

The impacts of life-role conflicts, institutional infrastructure, and experiential learning opportunities were the key themes explored under the *Becoming* category. Participants devoted considerable energy and attention to the institutional factors that facilitated, or hindered, their ability to realize their educational goals and aspirations. The importance of having a supportive institutional infrastructure was the strongest finding to emerge from the interviews. Limited course availability, inflexible schedules, and inaccessible facilities during hours that accommodate work and other life commitments were the main factors perceived to threaten continuous course enrolment and timely degree completion. Finally, positive classroom experiences that incorporated experiential learning opportunities were seen to have a direct impact on students' educational commitment and satisfaction levels. This was a unique study finding and suggests that teaching and learning practices should be a focal point for adult student retention. In subsequent sections, the main themes that were extracted from the in-depth interviews are discussed in relation to the results from the quantitative data analyses.

Faculty Focus Group

To complete the qualitative research process, a faculty focus group was held on June 20, 2007. As a 4-year, comprehensive regional University-College, Malaspina's stated mission focuses on teaching, service, and research excellence, with the fostering of student success listed as one of its strategic priorities. With this emphasis on teaching excellence and student success, faculty members were approached and agreed to participate because they were concerned about students' first-year experiences and they were interested in sharing their insights about creating institutional conditions that are more conducive to mature students' academic success and persistence.

As in the individual student interviews, a phenomenological approach was used to gather faculty perspectives in an open, unbiased manner. This method solicited insights about creating a climate conducive to mature students' persistence from those responsible for directly influencing classroom-learning conditions. Four faculty members were drawn from introductory general arts and science cluster courses to participate in the focus group.

Three broad, open-ended questions were used to facilitate the focus group discussion to surface salient faculty perceptions and experiences, as follows: a) what aspects of our institution contribute to adult students' learning (and quality of life) and what aspects hinder it? b) what are some examples of effective teaching and learning practices for mature students? and, c) how would you describe and evaluate the overall quality of the undergraduate experience at Malaspina for mature students? These were crafted as essential phenomenological questions and they were used to facilitate an open-ended discussion to surface salient faculty perceptions and experiences. Faculty signed a consent form informing them that their responses would remain anonymous and confidential (see Appendix I).

Focus Group Results

Focus Group Participants

Four faculty members, three males and one female, were interviewed at the end of the Spring term in June, 2007. The group consisted of two arts and two science faculty drawn from

the departments of English, Geography, Biology, and Physics/Astronomy. With respect to faculty profiles, their teaching experience at Malaspina ranged from three to 17 years, with two participants obtaining their doctoral degrees as mature students, and two following more traditional academic pathways to complete their doctoral studies. Two of the participants had completed undergraduate courses at Malaspina University-College before transferring to other universities in British Columbia.

Descriptive Summary

A phenomenological analysis was performed on the data generated from the focus group to explore, understand, and describe the essence of mature students' persistence. The themes that emerged from the focus group discussion were summarized after a careful review of the audiotaped data. A descriptive summary was created and sent electronically to all participants requesting any changes or refinements to the documented summary. Data analysis was completed when these final insights were incorporated into the descriptive summary.

The salient themes that emerged from the focus groups were categorized into three main thematic areas: a) aspects of the institutional environment that facilitate, or hinder, mature students' learning and quality of life; b) effective teaching and learning practices for mature students; and c) assessment of the overall quality of the undergraduate experience for mature students at Malaspina University-College. These thematic elements were further refined and presented under the headings: faculty perspectives on mature students' Teaching and Learning Experiences; faculty experiences, with respect to Teaching and Learning Practices; and faculty Suggestions for Improvements (see Appendix J).

Summary

The results from the Faculty Focus Group corroborate the main findings from the individual student interviews. In particular, the faculty members interviewed acknowledged that mature students have multifaceted lives and are more diverse, discriminating, determined, and goal-directed than their younger counterparts. Mature students were also seen to have a

broader range of life skills to draw on, similar to the personal and work-related assets that student interviewees disclosed.

One of the more interesting findings is that faculty placed a similar emphasis on the importance of student-faculty relationships as a means to instill confidence and to support students' academic progress. Specific reference was also made to the anxieties and fears that re-entry students often face in classes with younger students. Faculty members mentioned that they make conscious efforts to facilitate class discussions in ways that encourage participation from older students and that minimize any resentment by other classmates. Similar to the concerns and issues raised by the students interviewed, faculty highlighted the importance of flexibility in handling students' assignment deadlines and in scheduling courses to address adults' work and life commitments. In addition, faculty made similar recommendations that social areas should be created that are integrated into departmental areas to increase opportunities for student-faculty interactions. As a final note, it was evident that faculty members give serious attention to incorporating experiential teaching and learning activities and opportunities to collaborate with others into their classroom activity and course designs (e.g. group projects, field study, internships, and clinical placements). There was recognition that these teaching practices actively engage adult learners and validate their life and learning experiences with the associated positive impacts on mature students' learning outcomes.

Quantitative Methods and Results

The results from the secondary analyses on data from the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes were used to complement the qualitative study findings for studying mature students' persistence. In this way, the broader trends of the large-scale survey were viewed in relation to the main themes and essential meanings that emerged from the naturalistic inquiry. The quantitative methods and results are reported under the headings of Pan-Canadian Survey and Multiple Regression Analyses.

Pan-Canadian Survey

Secondary analyses were conducted on the data collected from the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes. This large-scale study was conducted by the Association of Canadian Community Colleges, with funding from Human Resources and Social Development Canada, and represented over 150 institutional members. As a result of Malaspina's involvement in the Pan-Canadian Study, and through subsequent agreements with the Principal Researcher, Dr. Peter Dietsche, access was granted to this unique database for the current study.

The model for the quantitative study was based on an integration of student departure theories and interactionalist concepts of academic and social integration originated by Tinto (1988, 1998), elaborated to include the concept of intention by Pascarella, & Chapman (1983), and with an emphasis on key external factors studied in the nontraditional students' attrition research conducted by Bean and Metzner (1985). And in keeping with repeated calls for further research using multidimensional concepts applied to subgroups of the nontraditional student population (Andres, 2004; Andres, Andruske & Hawkey, 1996; Bean & Metzner, 1985; Grayson & Grayson, 2003), a multivariate research design was used that placed emphasis on those institutional and external factors believed to influence mature students' persistence decisions. This research represents the first age-aggregated analysis of the 2005/06 Pan-Canadian Study that will expand our understanding of mature students' persistence in university-college and community college settings.

Survey Instruments

All member colleges of the Association of Canadian Community Colleges were asked to encourage their first-year students to complete the two separate, web-based questionnaires administered between August 29, 2005 (Entry Survey–beginning of first term) and December 9, 2005 (Exit Survey–end of first term). In addition to student characteristics, the surveys collected information about students' experiences in terms of their attitudes, perceptions, behaviours, and the student-institution interactions (including academic and social integration) that can influence students' learning and persistence in the first year of college (Dietsche, 2006).

Data Preparation and Analysis

Based on theories of nontraditional student retention and attrition, important variables were identified for inclusion in the present study that pertained to the following student outcomes: intentions to persist or withdraw, educational goals, and academic and social experiences. A proposed model for explaining outcomes was developed and tested using standard multiple regression analysis. The model was based on assessing the importance of selected background variables (e.g. goal-orientation, perceived relevance of studies), institutional conditions (e.g. faculty interactions/relationships, peer interactions/friendships), and external circumstances (e.g. financial concerns). Attention was placed on students' academic and social interactions—the perceived quality of students' contact with faculty and other students—with expected effects on satisfaction ratings, educational commitment, and intent to leave or continue studies. Interactions with faculty were expected to have more substantive impacts than peer interactions, based on previous nontraditional student retention research. In addition, emphasis was placed on financial concerns, as the one external factor typically associated with adults' family and work-life commitments. This factor was anticipated to influence intent to leave or continue studies, educational commitment, and satisfaction with institutional support resources. The following list of selected dependent and independent variables were used in the analysis (Appendix K contains the variable list with specific questionnaire items that relate to each variable):

Selected Dependent Variables/Constructs

- Intent to Change/Transfer Program (DV 1)

- Intent to Leave/Continue Studies (DV 2)

- Educational Commitment (DV 3)

- Confidence (DV 4)

- Satisfaction with Faculty Relationships (DV 5)

- Satisfaction with Student Participation (DV 6)

- Satisfaction with Institutional Support Resources (DV 7)

Selected Independent Variables/Constructs

- Financial Concerns/Financing College (IV 1)

- Peer Interaction/Friendships (IV 2)

- Faculty Interaction/Relationships (IV 3)

- Goal-Orientation (IV 4)

- Perceived Relevance of Studies (IV 5)

- Perceived Advantages of College Education (IV 6)

Using SPSS software, version 14, simple descriptive summaries and a correlation matrix were generated for the selected dependent and independent variables. All relevant questionnaire items from the Pan-Canadian Study pertaining to the seven dependent and six independent variables of interest were entered into the correlation matrix (ranging from three to 15 items). Substantial correlations among variables were identified from the correlation matrix results to prepare for the use of data reduction techniques. See Appendix L for a sample correlation matrix for items comprising the independent variable, Faculty Interaction/Relationships (IV 3).

Principal Component Analysis (PCA) was selected as the data reduction technique to simplify the data subset, as a preliminary step for conducting multiple regression analyses. The rationale for use of the PCA method is to reduce the complexity of the data by decreasing the number of variables that are considered; the first few derived variables—the principal components—account for the largest proportion of the total variance to provide a convenient summary of the data and to simplify subsequent analyses (Landau & Everitt, 2004). The central idea of PCA is to transform the data to a new set of ordered variables, so that the first few

retain most of the variation present in all of the original variables (Joliffe, 2002). The criteria used for deciding how many principal components to be retained were relative and pragmatic, with percentage cut-offs chosen that are large enough (typically correlations of .30 and above) to give an adequate representation of the data (Joliffe, 2002; Tabachnick & Fidell, 2001). The most common method of variable rotation—varimax—was adopted for use after variable extraction to maximize high correlations and minimize low ones for ease of interpretation (Tabachnick & Fidell, 2001). The principal component analysis was performed for the selected subset of dependent and independent variables using SPSS software (version 14) and varimax rotation to compute the percentages of total variance explained. The criterion was adopted for selecting the one principal component for each variable that explained the greatest proportion of the total variance (between 50-70%) and that appeared to have construct validity. The extracted factors were chosen that were intuitively reasonable and these were each labelled, based on relevant concepts in the student retention research.

For the purposes of the quantitative analyses, only matched data files were used for students who completed both the Entry and Exit questionnaires. This provided a consistent dataset with the most comprehensive range of variables available for analysis. It also ensured the inclusion of the college experiences and attitudinal variables of interest that were incorporated in the second survey. In preparation for multivariate procedures, the data were cleaned to reduce skewness and outliers, as well as to remove those cases where a substantial portion of the item responses were missing and were considered critical for the analysis. Cases were removed if over two thirds of the Exit questionnaire items were missing. The main intent of the study was to disaggregate the data by age; therefore, a review of the deleted cases was conducted to rule out age-related patterns in the missing values. While this method of deleting cases represented a substantial loss of data, it was considered the most prudent method for ensuring that there was a complete set of variables available for performing the multivariate procedures, while retaining a large sample. The data for the secondary analysis were extracted from the 2005/06 Pan-Canadian Study of College Students and First Year Outcomes. The selected dataset represented a total of 67 member institutions and 6190 student files, with approximately 70% of these drawn from the Ontario college system. The survey sample was

comprised of the 1191 students aged 25 years and older who completed both Entry and Exit survey questionnaires. Data cleaning reduced the total dataset to 6009 merged student files from the 65 participating institutions. The age cohort breakdown for this merged dataset was: 4818 (80%) under 25 years; 834 (14%) 25-34 years; and 357 (6%) 35 years and older. When conducting the secondary data analysis for the study, exclusive focus was given to the age-aggregated, merged dataset for mature students, that is, the 1191 students aged 25 years and older who completed both Entry and Exit surveys of the 2005/06 Pan-Canadian Study.

Descriptive statistics were computed for the age-aggregated dataset to describe the nature of first year experiences for mature students, using the subset of selected dependent and independent variables. The chi-square statistical tests (χ^2) were run to compare traditional and mature students against selected dependent variables, including measures of: persistence (intent to change programs, and quit studies before completion); educational commitment (rating of determination to finish education); confidence (rating of ability to succeed); and satisfaction (in relation to faculty relationships, teaching methods, and institutional support resources). The specific experiences of mature students were compared against younger age groups (under 25 years) to identify statistically significant differences.

As a final step, standard multiple regression analyses were conducted on the age-aggregated data of the 2005/06 Pan-Canadian Study dataset to examine the relationships among individual, institutional, and external variables on levels of mature students' intent to persist or withdraw, educational commitment, confidence, and satisfaction. The fundamental assumptions were met for using multiple standard regression, with no adjustments made to the data. Variables were measured on an interval scale and were based on independent observations. The relationship between the independent and dependent variables was presumed linear based on previous research. Concerns about the normal distribution of variables were addressed by data cleaning and data reduction procedures and the central limit theorem which protects against failures of normality with large sample sizes (Tabachnick & Fidell, 2001).

Survey Results

In this section, a detailed profile is included of the mature students' sample drawn from the Pan-Canadian Study, along with descriptive statistics to describe the nature of their first year experiences. In addition, the results of the standard multiple regression analyses performed on the age-aggregated data are presented to examine the relationships among variables of interest and to determine their impact on levels of mature students' intent to persist or withdraw, educational commitment, confidence, and satisfaction.

Survey Sample

The subgroup of interest for the present study represented 1191 (20%) students aged 25 years and older from the total, merged dataset. There were 181 student files removed from the merged dataset due to missing data. A demographic profile of the study sample is included in Table 1.

Table 1.   Demographic Profile of Age-Aggregated 2005/06 Pan-Canadian Study Sample

Age Category (Cohort)		Elapsed Time/Gap in Formal Education	
25-34	834 (70%)	< 5 years	86 (7%)
35-44	266 (22%)	5-10 years	469 (40%)
45+	91 (8%)	10+ years	580 (49%)
Total	1191 (100%)	Missing	56 (5%)
Gender		**Enrolment Status**	
Female	755 (63%)	Full time	1127 (95%)
Male	401 (34%)	Part time	38 (3%)
Missing	35 (3%)	Missing	26 (2%)
Marital Status		**Dependent Children**	

Single/Never Married	512 (43%)	None	671 (56%)
Married/Common Law	475 (40%)	1-3	432 (37)
Separated/Divorced	164 (14%)	3+	16 (1%)
Missing	40 (3%)	Missing	72 (6%)
		Dependent Adults	
		None	374 (31%)
		1-3	116 (10%)
		Missing	701 (59%)
Highest Education Level		**Type of Program/Enrolment**	
Less than High School	67 (6%)	Post-Graduate Diploma	154 (13%)
Grade 12/Equivalent	289 (24%)	Bachelor Degree Program	109 (9%)
Apprenticeship Training	31 (3%)	University Prep/Transfer	57 (5%)
Some Univ/College	231 (19%)	Career/Technical Program	796 (67%)
Certificate/Diploma	290 (24%)	Access/Upgrading Program	40 (3%)
Undergraduate Degree	202 (17%)	Missing	35 (3%)
Post-Graduate Diploma	33 (3%)		
Missing	48 (4%)		

The survey sample represented a predominantly younger group of students (70% were 25-34 years old), with 63% females, and roughly equal percentages who were single (43%) and married/living common law (40%). Almost all mature students were enrolled in full-time studies (95%) and approximately half of the sample (49%) was returning to school with a 10-or-more-year time lapse in their formal education. Over one-third of the sample (37%) had one to three dependent children and 10% were supporting one to three dependent adults. The greatest number of students had some university-college credits or an undergraduate degree (36%) with equal numbers of students reporting that their highest education achieved was at the high school/equivalent or certificate/diploma levels (24% respectively). In addition, given the comprehensive range of programs available in university-college and college settings, the majority of students were enrolled in career or technical programs (67%) followed by post-graduate diplomas (13%) and Bachelor degree programs (9%).

Descriptive Statistics

Chi-square analysis, generated from SPSS cross tabulations, was conducted to compare traditional and mature students using the reduced subset of dependent variables resulting from the Principal Component Analysis. For each variable, the component that accounted for the greatest percentage of the variation was selected for use in the comparative analysis. The high-variance component was also checked to make sure that it gave a relevant and valid interpretation of the original data and that it was a meaningful construct in relation to the study variables. The summary list of components used for the comparative analysis included measures of persistence (intent to change programs, and quit studies before completion), educational commitment (rating of determination to finish education), confidence (rating of ability to succeed), and satisfaction (in relation to faculty relationships, teaching methods, and institutional support resources).

The original intent was to compare students under age 25 with those over 35 years (using an age 35+ cut point) because it was believed that the greater age differential would give a truer picture of mature students' educational experiences. However, preliminary analysis showed that differences were noted across all older age cohorts with no further distinctions gained by using the 35+ cut point. As a result, data were compared for students under 25 with those 25 years and older when conducting the comparison of traditional versus mature students. The two independent groups were compared using the chi-square statistical test (x^2) to see if there were statistically significant differences between the observed frequencies in each group. The results are reported in Tables 2 and 3, as follows:

Table 2. *Comparison between Traditional and Mature Students for Selected Persistence, Educational Commitment, and Confidence Measures*

Measure	Age	Agreement Ratings				Significance χ^2
		Strongly Disagree/Disagree *N* (%)	Undecided *N* (%)	Strongly Agree/Agree *N* (%)		
Persistence Intent to Change Program	< 25yrs	3338 (72.6)	731 (15.9)	527 (11.5)		70.79*
	≥ 25yrs	949 (82.4)	112 (9.7)	91 (7.9)		
Persistence Intent to Quit Program	< 25yrs	3644 (81.5)	532 (11.9)	294 (6.5)		7.69
	≥ 25yrs	963 (84.8)	107 (9.4)	65 (5.7)		
Commitment Determination	< 25yrs	65 (1.5)	347 (7.8)	4063 (90.8)		10.83**
	≥ 25yrs	8 (0.8)	76 (6.7)	1048 (92.6)		
Confidence Ability to Succeed	< 25yrs	85 (1.8)	324 (7.2)	4078 (90.9)		37.56*
	≥ 25yrs	12 (1.1)	51 (4.5)	1072 (94.5)		

*   Significant at the 0.001 level,   **   Significant at the 0.05 level.

Note.   PCA–Variable with Highest Variance/Influence:
   Persistence   =   Rating of Need to Change Program
   Persistence   =   Rating of Intent to Quit Studies Before Completion
   Educational Commitment   =   Rating of Determination to Finish Education
   Confidence   =   Rating of Ability to Succeed

   Total Merged Dataset (Entry & End Survey)   N= 6009
   Traditional Students (< 25 yrs.)   n= 4818
   Mature Students (≥ 25yrs.)   n= 1191

A comparison of the self-reported persistence, commitment, confidence, and satisfaction ratings for traditional and mature students revealed some interesting variations. Turning to persistence measures in Table 2, it would appear that mature students are less likely to report an intention to change, or rate their program as not what they want, than their younger counterparts. Results show that there were statistically significant differences between the two groups (χ^2 = 70.79, p < .001). Although perceptions were polled early in the semester and represent intentions only, it is interesting to note that the likelihood of quitting was not greater for mature students.

With respect to educational commitment (Table 2), mature students expressed more determination to finish their college education than traditonal-age students (x^2 = 10.83, p < .05). Similarly, mature students showed more confidence in their ability to succeed in college (x^2 = 37.56, p < .001). These results are consistent with the findings from the in-depth interviews where participants' determination was expressed as a strong goal-orientation and achievement motivation, and where confidence was discussed in relation to acknowledged personal assets derived from extensive life and learning experiences. When viewed in relation to the interview findings, age-related differences may be associated with the fact that mature students have established clear goals, have weighed educational options carefully, and have decided to make the necessary sacrifices for longer-term benefits.

Table 3.   **Comparison between Traditional and Mature Students for Selected Satisfaction Measures**

Measure	Age	Extent Ratings				Significance x^2
		None N (%)	Very Few/Some N (%)	Most/All N (%)	Don't Know N (%)	
Satisfaction Faculty Relationships	< 25yrs	31 (0.6)	1346 (28.2)	3345 (69.9)	63 (1.3)	41.66*
	≥ 25yrs	6 (0.5)	248 (21.0)	915 (77.6)	11 (0.9)	
Satisfaction Student Participation	< 25yrs	37 (0.8)	1173 (24.6)	3520 (73.7)	43 (0.9)	122.39*
	≥ 25yrs	8 (0.7)	175 (14.8)	989 (83.8)	9 (0.8)	
Satisfaction Support Resources	< 25yrs	39 (0.8)	1069 (23.0)	3434 (73.7)	115 (2.5)	7.01
	≥ 25yrs	7 (0.6)	280 (24.1)	837 (71.9)	40 (3.4)	

*   Significant at the 0.001 level.

Note. *PCA–Variable with Highest Variance/Influence:*
 Satisfaction with Faculty Relationships   = Extent of Good Faculty-Student Relationships

Satisfaction with Teaching Methods = Extent that Student Participation Encouraged
Satisfaction with Institutional Resources = Rating of Resources to Support Learning

Total Merged Dataset (Entry & End Survey)   N= 6009
Traditional Students (< 25 yrs.)   n= 4818
Mature Students (≥ 25yrs.)   n= 1191

For satisfaction indicators, cross-tabulations tested with chi-square were computed to show significant differences between the two groups (Table 3). Mature students reported having good faculty-student relationships to a greater extent that traditional-age students ($X^2 =$ 41.66, p < .001). In addition, they indicated that they were more satisfied with teaching methods, specifically in relation to the extent of student participation and involvement in the classroom ($X^2 =$ 122.39, p < .001). These results are aligned with two major themes that emerged from the qualitative study and lend support to the claims that positive faculty-student relationships and experiential learning opportunities have a direct impact on students' satisfaction levels. No statistically significant differences emerged between the groups for satisfaction ratings of institutional resources to support student learning. It was, perhaps, too early for students to have accessed the range of available institutional resources.

In summary, mature students appear to be less inclined to change their programs and are more determined, confident, and satisfied with their faculty relationships and classroom experiences than their younger counterparts. When viewed in relation to the detailed accounts of students' personal assets and their positive post-secondary experiences, there is evidence to suggest that faculty and staff have a strong role to play in reinforcing the advantages of mature students' greater life experience and academic strengths. In addition, mature students could definitely benefit by taking introductory courses that promote active student participation and group interaction, especially during the crucial first semesters.

Multiple Regression Analyses

To complete the quantitative component of the study, standard multiple regression analyses were performed on the age-aggregated data of the 2005/06 Pan-Canadian Study to explore the determinants of mature students' intent to persist or withdraw (persistence

measure), educational commitment, confidence, and satisfaction. As outlined previously, the final multiple regression model contained seven dependent and six independent variables pertaining to the sample of mature students drawn from the Pan-Canadian Study merged dataset (see Appendix K for an outline of the specific variables and items included). SPSS (version 14) multiple regression procedures were used to allow prediction of mature students' persistence, educational commitment, confidence, and satisfaction from the six independent variables of interest. A separate regression analysis was conducted for each dependent variable, using the subset of predictor variables. In total, seven multiple regression analyses were performed on the data to test the model.

Intent to Change/Transfer

As indicated in Table 4, the six-variable model significantly contributed to the prediction of Intent to Change/Transfer Program (F = 122.624, p <.001). All six independent variables contributed significantly to the regression with t-statistics at .05, .01, and .001 levels. The regression model indicates that all variables in combination accounted for 44% (44% adjusted) of the Intent to Change/Transfer Program variance. The standardized coefficients reflect the unique contribution of each independent variable and show that financial concerns (β = .094), goal orientation (β = -.364), and perceived relevance of studies (β = .229) were important determining variables in the prediction of Intent to Change/Transfer Program.

Table 4. **Standard Multiple Regression of College Academic Experience and Attitude Variables on Intent to Change/Transfer**

| Variable | Coefficients | | Model | | |
	β	t	Adjusted R^2	F	df
Financial Concerns	.094	3.777***	.443	122.624***	6
Peer Interaction	-.072	-2.411*			
Faculty Interaction	- .074	-2.256*			
Goal Orientation	-.364	-12.550***			
Perceived Relevance	.229	10.653***			
Perceived Advantages	-.068	-2.290*			

* p <.05, ** p <.01, *** p <.001.

Intent to Leave/Continue Studies

The regression model contributed significantly to the prediction of Intent to Leave/Continue Studies (F = 61.572, p <.001), as depicted in Table 5. Five independent variables contributed significantly to the regression with t-statistics at .01 and .001 levels. All variables together accounted for 28% (28% adjusted) of the variance in Intent to Leave/Continue Studies. Results showed that four variables, in particular, were important determinants of students' intent to leave/continue in their program of study, and these were financial concerns (β = .103), goal orientation (β = -.239), perceived relevance of studies (β = .174), and perceived advantages of a college education (β = -.161).

Table 5. **Standard Multiple Regression of College Academic Experience and Attitude Variables on Intent to Leave/Continue**

Variable	β	Coefficients t	Model		
			Adjusted R^2	F	df
Financial Concerns	.103	3.674***	.283	61.572***	6
Peer Interaction	-.088	-2.582**			
Faculty Interaction	-.059	-1.591			
Goal Orientation	-.239	-7.241***			
Perceived Relevance	.174	5.459***			
Perceived Advantages	-.161	-4.809***			

* *p* <.05, ** *p* <.01, *** *p* <.001.

Educational Commitment

With respect to determinants of Educational Commitment, Table 6 shows that the regression model contributed significantly to prediction (F = 121.711, p <.001). Four of the independent variables contributed significantly to the regression with t-statistics at .01 and .001 levels. All variables taken together accounted for 44% (44% adjusted) of the Educational Commitment variance. Three variables, in particular, showed a strong relationship to the response variable. Faculty interaction/relationships (β = .136), goal orientation (β = 11.191),

and perceived advantages of a college education (β = 10.719) were important predictors of students' educational commitment to complete their college education.

Table 6. **Standard Multiple Regression of College Academic Experience and Attitude Variables on Educational Commitment**

Variable	β	Coefficients t	Adjusted R^2	F	df
Financial Concerns	.027	1.090	.441	121.711***	6
Peer Interaction	.005	.155			
Faculty Interaction	.136	4.145***			
Goal Orientation	.327	11.191***			
Perceived Relevance	-.074	-2.636**			
Perceived Advantages	.317	10.719***			

* p <.05, ** p <.01, *** p <.001.

Confidence

As shown in Table 7, the regression model contributed significantly to the prediction of Confidence (F = 87.976, p <.001) with four of the independent variables statistically significant at .01 and .001 levels. All variables in combination accounted for 36% (36% adjusted) of the variance in Confidence. Three variables showed an especially strong relationship to the response variable, such that faculty interaction/relationships (β = .196), goal orientation (β = .312), and perceived advantages of a college education (β = .163) were important determinants of students' confidence in their ability to succeed in their studies.

Table 7. **Standard Multiple Regression of College Academic Experience and Attitude Variables on Confidence**

Variable	β	Coefficients t	Adjusted R^2	F	df
Financial Concerns	-.030	-1.142	.361	87.976***	6
Peer Interaction	.092	2.877**			
Faculty Interaction	.196	5.587***			
Goal Orientation	.312	10.094***			
Perceived Relevance	-.037	-1.229			
Perceived Advantages	.163	5.157***			

* p <.05, ** p <.01, *** p <.001.

Satisfaction with Faculty Relationships

For Satisfaction with Faculty Relationships, Table 8 shows that the regression model contributed significantly to prediction (F = 73.775, p <.001). Four of the independent variables contributed significantly to the prediction of Satisfaction with Faculty Relationships with t-statistics at .01 and .001 levels. All variables in combination accounted for 32% (32% adjusted) of the variance in Satisfaction with Faculty Relationships. Two variables, in particular, showed a strong relationship to the response variable. Faculty interaction/relationships (β = .482) and perceived program relevance (β = -.120) were important determinants of students' satisfaction, as measured by their assessment of the number of faculty who have good relationships with their students.

Table 8. *Standard Multiple Regression of College Academic Experience and Attitude Variables on Satisfaction with Faculty Relationships*

Variable	β	Coefficients t	Adjusted R^2	F	df
Financial Concerns	-.071	-2.594**	.322	73.775***	6
Peer Interaction	-.025	-.762			
Faculty Interaction	.482	13.242***			
Goal Orientation	.088	2.755**			
Perceived Relevance	-.120	-3.844***			
Perceived Advantages	-.014	-.428			

*p <.05, **p <.01, *** p <.001.

Satisfaction with Student Participation

As shown in Table 9, the regression model contributed significantly to the prediction of Satisfaction with Student Participation (F = 50.147, p <.001) with two of the independent variables statistically significant at .01 and .001 levels. All variables together accounted for 24% (24% adjusted) of the variance in satisfaction with student participation. One variable, in particular, showed a strong relationship to the response variable. Faculty interaction/relationships (β = .399) was the strongest predictor of students' satisfaction, as

measured by their assessment of the number of faculty who encourage student participation and involvement in class.

Table 9. *Standard Multiple Regression of College Academic Experience and Attitude Variables on Satisfaction with Student Participation*

Variable	β	Coefficients t	Model Adjusted R^2	F	df
Financial Concerns	-.046	-1.582	.243	50.147***	6
Peer Interaction	.019	.550			
Faculty Interaction	.399	10.427***			
Goal Orientation	.036	1.065			
Perceived Relevance	-.104	-3.150**			
Perceived Advantages	.031	.889			

* *p* <.05, ** *p* <.01, *** *p* <.001.

Satisfaction with Institutional Support Resources

Lastly, the regression model contributed significantly to the prediction of Satisfaction with Institutional Support Resources (F = 49.240, p <.001) with three of the independent variables statistically significant at .05, .01, and .001 levels (Table 10). All variables in combination accounted for 24% (24% adjusted) of the variance in satisfaction with institutional support resources. Two variables, in particular, showed a strong relationship to the response variable. Faculty interaction/relationships (β = .388) and perceived program relevance (β = -.125) were important predictors of students' satisfaction, as measured by their assessment of the extent to which the institution provides students with the resources they need to learn.

Table 10. ***Standard Multiple Regression of College Academic Experience and Attitude Variables on Satisfaction with Institutional Support Resources***

Variable	β	Coefficients t	Model		
			Adjusted R^2	F	df
Financial Concerns	-.064	-2.220*	.240	49.240***	6
Peer Interaction	.023	.670			
Faculty Interaction	.388	10.059***			
Goal Orientation	-.006	-.181			
Perceived Relevance	-.125	-3.792***			
Perceived Advantages	.055	1.589			

* $p < .05$, ** $p < .01$, *** $p < .001$.

Summary

Overall, the results support the effectiveness of the regression model in identifying several factors that are important predictors of mature students' persistence (intent to persist or withdraw), educational commitment, confidence, and satisfaction. The model appears to have the best fit with Intent to Change/Transfer and Educational Commitment Variables (explaining 44% of the variance, respectively).

For both Intent to Change/Transfer and Intent to Leave/Continue Studies variables, financial concerns, goal orientation, and perceived relevance of studies were the most important determinants. It would appear that these factors are important predictors of students' intentions to continue their studies, with the potential for affecting mature students' actual retention outcomes. For both Educational Commitment and Confidence variables, faculty interaction/relationships, goal orientation, and perceived advantages of a college education were the most significant predictors. Similarities in the results suggest that the constructs of educational commitment and confidence may be closely related. Further study would be needed to refine construct measurement, in order to improve the predictive model. Finally, for the Satisfaction variables, faculty interaction/relationships and perceived program relevance were the strongest predictors. Not surprisingly, students' positive assessment of faculty-student relationships was predictive of their satisfaction ratings. It also makes sense that the

likelihood of students finding their programs relevant contributes positively and significantly to their satisfaction levels. It would appear that students' satisfaction with their college experiences, in general, is dependent on their perceived positive relationships with faculty and their belief that they are engaged in relevant learning experiences.

A consistent pattern of individual, institutional, and external factors is revealed, when results from the secondary data analysis are considered alongside the emergent themes from the in-depth interviews. The multiple regression analysis confirmed the importance of goal orientation and perceived relevance of studies as predictors of Intent to Change/Transfer and Intent to Leave/Continue Studies. During their interviews, mature students also stressed the significance of having clearly defined goals, as well as the importance of having high-levels of determination and motivation to realize their educational goals and aspirations. Participants shared vivid examples of how their individual characteristics—expressed as personal assets—were contributing to their educational focus and persistence. Mature students continually situated their educational pursuits in the context of relevant personal, educational, and career-related goals.

Student-faculty relationships were a pivotal factor in promoting mature students' persistence in the current study. Students' ratings of faculty interactions/relationships had predictive significance in the regressions on Educational Commitment, Confidence, and Satisfaction variables. Likewise, the perceived quality of students' relationships with their professors was the most influential institutional factor raised during the individual interviews. Most participants attributed their positive academic experiences to the encouragement and support they received from their professors. The nature and extent of mature students' relationships with their professors were particularly important for instilling confidence, clarifying academic expectations, and providing course-related accommodations when needed.

Financial concerns were raised as prominent issues for mature students in both the large-scale survey and the qualitative interviews. This factor was a significant predictor of Intent to Change/Transfer and Intent to Leave/Continue in the multiple regression analyses. This is not surprising, given the fact that over one-third of the survey sample had between one to three dependent children and 10% were supporting between one to three dependent adults.

Similarly, finances was the one external factor reported most often as exacerbating students' levels of stress and life-role conflicts in the individual interviews. Several students gave detailed accounts of how family obligations had compounded their financial stresses, and how their student loans were either unavailable or inadequate to relieve their financial burdens.

In summary, goal orientation, perceived relevance of studies, student-faculty relationships, and financial concerns emerged as the most influential contributors to mature students' persistence. The importance of these factors was revealed in the major findings for both secondary and primary data analysis. It should be noted that while a comparison of selected outcome measures was conducted for traditional and mature students, variations among the different cohorts were not examined. It was not the focus of this study to examine the differential impacts within and between the various cohorts of mature students. However, it must be emphasized that Peer Interaction was a significant determinant of Intent to Change/Transfer, Intent to Leave/Continue, and Confidence, and this may be related to the fact that 70% of the age-aggregated survey sample were between the ages of 25-34 years. Turning to similar findings for the individual interviews, the youngest participants reported feeling disconnected and segregated from their peers when opportunities for socializing were missing. In contrast, the older participants were more content to be studying with mixed age groups. Thus, the possibility exists that peer interaction is a more important contributor to students' social integration and persistence for younger cohorts of mature students.

Conclusions and Practical Applications

Combined results from the secondary data analysis and the in-depth interviews were integrated to develop overall study conclusions and practical applications for enhancing student retention policies and practices in university-college and college settings, with the aim of improving the quality of our institutional environments for mature students. The blending of qualitative and quantitative study findings created a more holistic and comprehensive portrait of the factors influencing mature students' quality of life and retention, thus confirming the utility of adopting an adult quality of life conceptual framework for this study. In accordance with the various levels and accountability structures within university-colleges and colleges, the

practical applications are presented under the headings: Implications for Faculty, Implications for Student Development Staff, and Implications for Educational Leaders.

Implications for Faculty

Faculty members play a pivotal role in welcoming, encouraging, and mentoring mature students who may be entering university-college or college for the first time, or re-entering after long lapses in their post-secondary education. In either case, frequent faculty contact has a powerful influence on mature students' educational experiences. Recent research studying the impact of college on students confirmed the critical role that student-faculty interaction plays in promoting educational attainment and persistence. It has been shown that "supportive interaction with professors, both in and out of the classroom, is instrumental to college students' academic achievement" (Clifton et al., 2004, p. 803). Particular emphasis was placed on faculty's role in introducing students to the social and scholarly norms of the institution, and in solidifying the bonds between students and the institution (Pascarella & Terenzini, 2005). In addition, faculty teaching and active learning have been linked to student learning and persistence (Tinto, 2002). There is a growing body of evidence that suggests that the "most effective teaching and learning require opportunities for active student involvement and participation," and that "curricula and courses that address topics in an interdisciplinary fashion are more likely to provide effective educational experiences" (Pascarella & Terenzini, 2005, pp. 646-647).

The important role of faculty in contributing to nontraditional student retention has been well-documented (Bean & Metzner, 1985; Hoell, 2006; Samuels, 2005). Faculty are in the ideal position to: provide ongoing academic advice and performance feedback; clarify specific course or program expectations; build confidence and rapport by acknowledging students' previous life and learning experiences; create active learning opportunities to engage students in classroom activity; and orient students to the general requirements and specific culture of the university-college. Findings from the current study reinforce the important role of faculty, as substantiated in previous research. However, the current study places more emphasis on teaching and learning practices that address adults' stated learning requirements and

expectations. It also places faculty at the forefront in promoting an engaging and responsive university-college environment, using a more holistic, adult quality of life perspective.

The following list of practical suggestions was generated from the participant interviews:

- Create an institutional dialogue among faculty to discuss effective teaching and learning approaches that will enhance student-learning outcomes. Discussion could focus not only on teaching and learning practices that encourage student participation, but also on ways to stimulate interdepartmental connections to promote enrichment opportunities for students;

- Explicitly acknowledge the links between mature students' persistence and active student involvement in classroom activity. At the start of each semester, reinforce the importance of professors using active learning strategies for acclimatizing students to the learning culture, facilitating in-class socializing, and providing a means for efficient assignment completion. Professional development workshops could be offered during Spring and Summer institutes that are specifically geared for new teaching faculty;

- Encourage professors to place more emphasis on self-directed study to recognize adults' previous life and learning experiences. Endorse the pacing of course material to avoid the "crunch" at the end of each semester, and as a way to minimize the effects of life-role conflicts;

- Integrate attendance at relevant on-and-off campus events into the course syllabus (e.g., theatre performances, art shows, research presentations, concerts) to provide enrichment opportunities and to facilitate student-professor and student-student relationships; and

- Encourage departments to host their own open houses or welcoming events, at the beginning of each semester, to introduce incoming students to faculty and other students, and to orient mature students to discipline-specific common areas.

Implications for Student Development Staff

Research suggests that the use of academic advising and student support services is positively associated with student persistence and graduation rates (Pascarella & Terenzini, 2005). Barriers to student retention are well documented and include uncertainty about educational goals and major fields of study, inadequate academic preparation, academic difficulty, inability to access support services, inadequate finances, transitional stress, and personal problems (Grayson & Grayson, 2003; Pascarella & Terenzini, 2005; Tinto, 1993).

Moreover, these barriers are shown to have differential effects for nontraditional students who are generally considered more "at-risk" for experiencing academic difficulty and non-completion (Bean & Metzner, 1985; Farabaugh-Dorkins, 1991; Kasworm, 2003; Samuels, 2005; Sandler, 2001).

The construct of intention to persist is an important component of theoretical models of nontraditional student attrition, as intentions are considered a strong predictor of actual persistence and re-enrolment behaviour (Metzner & Bean, 1987; Sandler, 2000). In addition, factors linked to mature students' intentions may have the most potential for affecting students' success early in the semester, with implications for longer-term persistence. Regression results showed that goal orientation and perceived relevance of studies were important determinants of mature students' persistence. These factors may be particularly amenable to early educational planning interventions that include academic advice, financial assistance, and personal support. When viewed in the context of current study findings, student support services that address the particular life-context challenges faced by mature students are fundamental to their ability to continue their studies. The following suggestions address the major concerns and issues that were summarized from the current study and build on the documented evidence in support of targeted student support services:

- Provide separate pre-admission and orientation sessions for mature students that include focused campus tours, study skills for re-entry students, hands-on demonstrations for accessing relevant resources, and an overview of 'typical day' scenarios;

- Institute a schedule of ongoing education planning sessions that will facilitate face-to-face meetings between mature students and education advisors. Offer a minimum of three points of contact for mature students that are scheduled before classes begin, during the first three weeks of semester, and at the end of the first academic term;

- Conduct student assessments of current and anticipated financial circumstances in relation to ongoing family and work commitments, during scheduled education planning sessions. A variety of sources for financial aid should be pursued including grants, scholarships, loans, family support, and employment income;

- Document and promote typical post-secondary entry points for mature students that include flexible admission, adult basic education, and prior learning assessment and recognition. Give particular attention to laddering programs and

opportunities for mature students to apply their college credits to university level studies; and

- Schedule brown bag luncheons throughout the first semester and invite all mature students to attend for an informal exchange of practical information and peer support. Also, encourage mature students to join academic associations and clubs on campus to increase program relevance and academic engagement.

Implications for Educational Leaders

In the preceding sections, the interrelated influences of individual, institutional, and external factors on mature students' persistence, educational commitment, confidence, and satisfaction were highlighted. Study findings revealed a number of factors that enhance or impede mature students' successful educational progress and credential completion. Interview findings revealed that despite the many programs and services available at Malaspina University-College, adult learners' experienced feelings of isolation, dissatisfaction, confusion, and uncertainty at various times during their first two semesters. The current research endorses the conclusion that university-colleges and colleges need to adapt their institutional structures and processes to better accommodate the multiple roles and responsibilities faced by adult learners. This is consistent with the evidence in the nontraditional student retention and attrition research that mature students are "persisting against difficult odds in an institutional system that is not well calibrated for the multiple roles of adults" (Sandler, 2000, p. 569).

In exploring the links between health and learning, one innovative study emerged that examined the direct relevance of student health to student success outcomes. Floyd (2003) made the case that "a true learning college, a college committed to student success, is one that is committed to a healthy climate for students and to student health" (p. 25). It was further argued that educational leaders are charged with the responsibility of creating and sustaining healthy campuses, and for implementing broadly based student health programs and services. Community colleges were encouraged to determine the demographics of their student population and to assess their specific health needs. Family-based health services were

recommended in instances where the surrounding community had limited access to medical and health services (Floyd, 2003). When health-related issues are examined in relation to the current study findings, it is apparent that mature students did not have access to on-campus health and wellness resources to help them cope with their family-based health needs. In addition, students who were new arrivals to the community-at-large, faced significant obstacles when trying to find a family physician who would accept new patients. When considered in light of the 2005/06 Pan-Canadian Survey data, the demographics of the mature student sample showed that a high proportion (37%) were caring for dependent children and 10% were supporting dependent adults. Study results point to the need for university-college and college administrators to address the significant student health challenges that adult learners face, and in the context of adult student wellness, quality of life, and retention.

The primary aim of the current study was to gain in-depth knowledge about mature students' educational experiences that would shed light on the specific institutional actions needed to improve mature students' quality of life and retention in a university-college environment. Both the interview findings and the multiple regression results reinforce the need for a comprehensive, coordinated institutional effort to address mature students' educational needs and challenges. In fact, the data imply institutional obligations for developing effective adult student retention policies and programs that are within the scope of institutional responsibility. There was no intent to create an inventory of institution-specific student retention initiatives, nor to catalogue the broad range of institutional best practices that have been associated with successful student outcomes. There was, however, an expressed intent to use the findings and conclusions of this study, together with the synthesis of the relevant research, to identify specific organizational improvements for enhancing mature students' educational commitment and persistence within university-college and college settings. The practical applications that pertain to educational leaders are presented under the headings of environmental features, organizational policies and systems, and enrichment and health-promotive practices.

Environmental Features

- Create "socially catalytic spaces" within departmental areas for adult students to congregate and to promote student-faculty interaction. Focus on functional and attractive design issues, such as natural light/atriums, energy efficient lighting, comfortable chairs, wireless study carrels, and local community art. Incorporate these public zone spaces as part of the ongoing renovation work on campus.

- Provide lockers, and storage areas for commuting students to unload heavy books between classes. Lockers should be available in all departmental areas and proximate to student-faculty lounges and common areas.

- Develop a physical facilities plan for upgrading all classrooms to become adult-friendly (e.g., install non-glare lighting for better visibility, replace finishings with more sound absorbent material).

- Institute a Ride Program or Commuter Van for safe and cost-effective transportation, especially for students commuting from outlying communities and satellite campuses. This would reduce congestion around campus parking, while creating incentives for students to pursue environmentally-friendly transportation.

Organizational Policies and Systems

- Improve course access by experimenting with course models that are shorter in duration and delivered in evenings and on weekends. Summer Session courses could be promoted to help mature students expedite their degree and as a way to lighten course loads during the regular semester.

- Offer a mix of course formats and schedules for core BA/BSc degree courses to minimize waitlists and to permit timely degree completion. High-demand courses could be offered online across all semesters to supplement classroom-based delivery.

- Offer bursaries for returning students and merit-based scholarships for "second chance" students to offset financial burdens.

- Provide extended hours of library service on weekends and throughout all semesters to accommodate working students.

- Schedule refresher sessions for all front line staff to reinforce the importance of handling students in an individualized, supportive way. Review and revise procedures for handling course complaints that include follow-up communications.

- Develop a tracking and monitoring system for mature students that will report actual enrolment behaviour across four academic quarters. The system could be designed to reflect mature students' diverse educational goals and their less

traditional education pathways (e.g., acknowledging stop-out or inactivity because of work and family obligations). Institutional retention models, and their corresponding methods for recording and reporting statistics, should be adjusted to capture the most common continuous learning patterns for adult learners.

Enrichment and Health-Promotive Practices

- Increase opportunities for students to pursue work-related apprenticeships and co-op experiences as a strategy to enrich learning, increase program relevance, and enhance job prospects. This gives recognition to the fact that adults are life-centred in their educational orientation.

- Offer campus-based activities and special interest programs that are geared to a more mature audience. The Student Union Executive could be approached to allocate a portion of student fees to reflect the changing student demographic and the need to supplement the predominant traditional-age student focus.

- Dedicate peer helping and mentorship resources to promote student-student interactions and a sense of belonging on campus for mature students. Resources could be used to provide specific academic and social support in attempts to strengthen mature student' academic and social engagement. A peer mentorship initiative could be implemented, as part of a coordinated student retention plan, to promote student leadership skills.

- Develop a systematic and comprehensive approach to health and wellness, as a campus-wide student retention strategy. Provision of on-campus health education, promotion, and family-based services would be a major step forward in creating and maintaining a "health-promotive" university-college environment. This would be especially supportive of mature students who have age-related personal health concerns and family-related health and caregiving responsibilities.

This section culminates with a synthesis of the eight study conclusions and practical applications that are aimed at improving the quality of university-college and college environments for mature students. It is recognized that a key piece in the persistence puzzle is ensuring that existing student retention policies and practices are flexible, holistic, and responsive to adults' unique needs and challenges. The main conclusions drawn from the qualitative and quantitative results are reflective of the multi-textured and multi-layered patterns of mature students' lived experiences. The eight study conclusions and practical applications are summarized, as follows:

1. Mature students are highly goal-directed, although their educational pursuits are more varied and complex than conventional degree attainment. For accurate retention and attrition predictions, more importance should be assigned to adults' multifaceted life circumstances and the meaning they attach to their specific educational goals. In addition, the methods used for tracking and monitoring adult learners' actual enrolment should take into account at least four academic quarters.

2. Mature students attribute their post-secondary successes to personal assets that were derived from extensive life, learning, and work experiences. Their self-identified skills, attitudes, and knowledge were important contributors to mature students' educational experiences. Institutional efforts to acknowledge and reinforce mature students' strengths and their extensive life and learning experiences may be very effective in helping mature students manage the transition to university-college. This may be especially helpful for 'second chance' students and those who lack confidence in their academic abilities. For others, this may be the catalyst for converting positive intentions into demonstrated learning outcomes.

3. Mature students who were experiencing heightened levels of life-role conflicts persisted with their studies if they were able to draw on practical assistance and support at critical junctures. Students' ability to balance school with other life commitments appeared to be directly related to the nature and extent of support they were receiving from external sources. Students also talked about the financial hardships they were experiencing by returning to school while juggling multiple life roles and family obligations. In several instances, students anticipated having to stop-out for one or more semesters to manage their finances. Given the significance of this factor, mature students should have ongoing access to education planning resources to help them realistically assess and plan for the impacts on family and financial resources.

4. Supportive and helpful relationships with professors have a positive impact on mature students' satisfaction levels and their feelings of academic competence. This claim is substantiated by numerous studies indicating that academic engagement and meaningful student-faculty interactions, both inside and outside the classroom, are powerful predictors of adult learners' academic performance and persistence. Given the importance attributed to faculty interaction/relationships, professors should make special efforts to remain accessible and approachable in the first few weeks of classes. Introductory, first year courses should be used as the vehicle for enhancing students' educational attainment and retention rates. Results from the interviews and secondary data analysis also reinforced the importance of creating classroom conditions that facilitate peer interactions for mature students who are seeking in-class socializing opportunities. It was recommended that institutions create "socially catalytic spaces" that are integrated into departmental areas to promote student-faculty interaction.

5. Experiential learning opportunities have a positive impact on mature students' educational commitment and satisfaction levels. This unique finding was confirmed in

both the individual interviews and the faculty focus group and gives credence to the importance of integrating mature students' prior life and learning experiences into classroom activity. In addition, results from the comparative analysis showed that mature students were more satisfied than traditional-age students with teaching methods that encouraged student participation and classroom involvement. Study findings are also supportive of empirical research showing that faculty teaching skills— specifically teaching organization, preparedness, and clarity—have direct positive effects on students' social integration and their subsequent institutional commitment and intentions to re-enroll. The current study offers compelling reasons for promoting specific teaching and learning practices that are positively associated with mature students' educational commitment and persistence.

6. A supportive institutional infrastructure is linked to mature students' ability to realize their educational goals and aspirations, which in turn is associated with positive persistence and satisfaction outcomes. Interview participants mentioned a range of supportive institutional practices that were either lacking or were specifically geared to meeting their unique needs and challenges. Participants drew attention to the importance of financial affordability, small class sizes, responsive admission processes, and the extent of course availability and scheduling flexibility. Regression results provided additional evidence that financial concerns were a determining factor in mature students' re-enrolment decisions. Findings from the current study provide a detailed account of mature students' educational experiences that could be used for redesigning financial assistance programs, enhancing prior learning and early warning systems, as well as improving course availability and scheduling flexibility.

7. Results from the age-aggregated analysis of the 2005/06 Pan-Canadian Survey data showed that a high proportion of mature students (37%) were caring for dependent children and 10% were supporting dependent adults. Interview participants reported that they did not have easy access to health services and supportive resources to help them cope with their family-based health needs. In addition, students who were new arrivals to the community-at-large, faced significant obstacles when trying to find a family physician who would accept new patients. Study results point to the need for on-campus health education, promotion, and family-based services to address the significant health challenges that mature students face, and in the context of student wellness, quality of life, and retention.

8. A holistic, adult quality of life model is recommended for exploring the complexity of mature students' educational commitment and persistence. Study results showed that mature students' persistence is a multifaceted phenomenon and that an adult quality of life approach has utility for exploring the "dynamic transaction" between people and their environments. There is evidence to suggest that efforts to enhance mature students' quality of life and retention should take into account the health-promotive aspects of university-college and college settings and the joint influence of individual, institutional, and environmental factors on personal and collective well-being.

Summary

This study was unique in applying mixed-methods for exploring mature students' quality of life and retention in post-secondary education. Multiple regression results were used to complement the emergent themes and issues from the naturalistic inquiry to develop a more comprehensive understanding of mature students' persistence. An attempt was made to draw meaningful conclusions from the combined results to identify practical applications that are within the control of institutional faculty, student development staff, and educational leaders. Using the analogy of the jigsaw puzzle, the intent was to construct a holistic and coherent image of mature students' persistence from the integration of qualitative and quantitative data.

Study results showed that experiential and active learning approaches in the classroom fostered more positive levels of educational commitment, confidence, and satisfaction for mature students. This is consistent with previous research showing that high-quality learning environments build in opportunities for interaction and collaboration with faculty and fellow students (Clifton et al., 2004; Pascarella & Terenzini, 2005; Tinto, 2002). Additional research is needed to identify the teaching and learning practices that strengthen students' academic performance and social connectedness at different points in their learning trajectory. It would be interesting to know if teaching methods and faculty support have differential effects when students are first acclimatizing to the culture, when they are coping with mid-term and second-semester academic expectations, and when they are declaring their major fields of study. Research into academic and student support practices that can be demonstrably linked to student learning outcomes would also be helpful for educational planning and resource allocation purposes.

Further research is required to develop a model of student retention/attrition that is more attuned to adult learners' continuous learning pathways in university-college and college environments. Grayson and Grayson (2003) recommend a revision to current retention and attrition models by capturing four quarters of enrolment activity to accommodate the less traditional academic paths of adult learners. Hoell (2006) points to the limitations of conventional snapshot retention data that do not allow an assessment of the multiple, often legitimate reasons, why students leave or transfer from their original institutions. Hoyt and

Winn (2004) offer a compelling argument for institutions to identify subpopulations of nonreturning students for institutional planning purposes. They call for more refined definitions that distinguish between the following groups of students: transfer-outs, those who re-enroll in another institution; stop-outs, students who skip a term or more and do not complete their studies within normal time schedules; and opt-outs, nondegree-seeking students who leave when they have accomplished their educational goals. These findings suggest that modifications to traditional student retention and attrition models are warranted to develop a more accurate representation of adult student retention. Further site-specific research is needed to develop accurate retention models that take into account adults' complex life circumstances, their more diverse educational goals and intentions, and their need for more accommodating institutional responses. As a concluding comment, if educational leaders are truly committed to student success, then they can demonstrate that commitment by creating and sustaining healthy campus environments that promote students' quality of life and retention—mature students' persistence offers an excellent barometer of the state of our institutional health.

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Appendices

Appendix A: Individual Interview Guide

Note: Thank student and refer to our brief telephone conversation. Begin the interview with a social conversation as a warm-up. Use a brief reflective activity–ask for any immediate ideas/insights/concerns, or ask participant to recall a specific situation, event, thought/feeling, or person connected with her/his first day on campus.

Introduction: Recap study purpose. The purpose of my study is to gain in-depth insights into mature students' university-college experiences, and to identify those factors that contribute to their quality of life and retention. By participating, you will be helping us to identify the specific needs and challenges that adult learners face and the associated need for campus programs, services, and resources that will support mature students in attaining their educational goals and aspirations.

Interview Question:

Tell me about your experiences as a mature student?

Note: Participants will be asked to describe their experiences, as fully as possible, using one open-ended question: Additional (focus) questions will be used, as needed, to evoke vivid and comprehensive accounts of each person's experience, to seek clarification, and/or to obtain specific examples. Focus questions will be varied, changed, or ignored altogether to allow for spontaneous accounts of participants' lived experiences.

Additional (Focus) Questions:

1. What is it about your university-college experience that allows you to achieve your life goals, hopes and aspirations as a mature student? (Probe for examples of what has helped, gauging importance/positive impact).

2. Are there aspects of your university-college experience that have presented barriers in your efforts? (Probe for examples of what has hindered, gauging importance/negative impact).

3. What are the key elements of the university-college setting that influence your quality of life, that is, your ability to exercise your individual needs, choices and control as a mature student? (Probe for specifics, such as classroom experiences)

4. What are some of the issues you face in managing your multiple life roles as a mature student? (Probe for specifics, such as family responsibilities)

5. Are there specific things that the university-college could do to improve mature students' educational experiences? (Probe for specifics, such as course-availability)

6. Do you have anything else to add? Any surprises? Any advice for others?

Note. Ask for a pseudonym and confirm email and telephone number for follow-up.

Appendix B: Participant Letter of Invitation

Re: *Invitation to Share your Unique Insights and Experiences as a Mature Student*

Dear : Student

I am writing to ask for your voluntary participation in an exciting research study on the experiences of first-year, mature students at Malaspina University-College. My *Mature Students' Persistence Study* will explore aspects of mature students' lives and life events that are important to their well-being, and that contribute to their decisions to complete their studies. By participating in this study, you will be making a unique contribution to this under-researched area. You will also be helping Malaspina to identify the specific campus programs, services, and resources that will support mature students in attaining their educational goals and aspirations.

If you agree to participate in the study, you will be asked to complete two, one-hour interviews held on campus during your first and second semesters. During the interviews, I will be asking open-ended questions that may touch on your classroom-based experiences, institutional resource-use, family circumstances, support networks and educational goals and intentions. All interviews will be audiotaped and transcribed, and results will be presented as summarized information only (your personal information will be kept strictly anonymous and confidential).

To recognize your contribution of time, energy, and effort, I will be offering you a $25 Bookstore Gift Certificate, and at the end of the interviews, your name will be entered into a draw for a 1GB, USB Flash Drive/Memory Stick (your chances of winning are 1 in 12!).

I will follow-up this Letter of Invitation with a phone call in the near future, to answer any questions you may have and to ask you for your participation. I can be reached at tel: (250) 740-6548, and by email: macfadgenl1@mala.bc.ca to discuss your interest in joining the study. I am looking forward to the possibility of your participation and I thank you, in advance, for making a significant contribution to our understanding of mature students' unique needs and issues.

Sincerely,

Lynne MacFadgen, Principal Researcher
Mature Students' Persistence Study
Canadian Council on Learning Research Grant Recipient
and Doctoral Candidate in Education, Simon Fraser University

RESEARCH CONSENT FORM - STUDENT
"Mature Students' Persistence Study"
May, 2006

Lynne MacFadgen, Principal Researcher, Malaspina University-College, Faculty of Student Services Tel: (250) 740-6414; Fax: (250) 740-6464 Email: macfadgenl1@mala.bc.ca	*Additional Contact*: Dr. Patrick Ross, Vice-President Student Services Faculty of Student Services Tel: (250) 740-6411; Fax: (250) 6484 Email: rossp@mala.bc.ca

You are invited to participate in the Mature Students' Persistence Study which is being conducted to explore the factors that are associated with mature students' levels of commitment and persistence in their first year of post-secondary education. Of particular interest are those factors that contribute to your quality of life, and your decisions to complete your studies at Malaspina University-College.

You will be asked to participate in two, one-hour interviews during your first and second semesters, along with other students aged 25 years and older who are currently enrolled in first-year courses in general arts and science degree programs at Malaspina University-College. During the interviews, you will be asked open-ended questions about your quality of life issues, family circumstances, external activities, support networks, academic performance, classroom-based experiences, institutional resource-use, and educational goals and intentions.

All interviews will be audiotaped and transcribed by senior students to capture central themes and issues. Results will be presented as summarized information (papers presented at ACCC and CSSE National Conferences in May, 2007), and a Final Written Report of Findings will be submitted to the Canadian Council on Learning (project funder) and to Simon Fraser University (to fulfill requirements of the researcher's EdD Educational Leadership Degree). Personal narratives and case studies will have no individual identifiers attached when reported, to ensure strict confidentiality and complete anonymity. Only the principal researcher, the hired transcribers, and the senior supervisor will have access to personal records, all of whom are committed to keeping your personal information confidential.

Your participation in this research study is entirely voluntary, and you are free to withdraw your involvement, at any time and for any reason, without consequence. You also have the right to ask questions throughout the study, and to decline to answer any questions in the interview process. You will be asked to review your personal profiles and case studies to determine how closely these descriptions match your actual experiences. The possible risks associated with participation in the research are considered minimal, and no greater than those encountered

when negotiating daily life, while the potential benefits are expected to be significant in contributing to our understanding of adult learners' needs and challenges.

I have read and understand the above information and I voluntarily agree to participate in the Study. I have been offered to keep a copy of this signed consent form.

_____   _____

Participant's signature   Principal Investigator's signature

_____

Date

Appendix D: Participant Follow-up Questions

Individual Interview Follow-Up Questions–Email/Telephone Call

Name: _____

Tel: _____

Date: _____

Questions: _____

1. Are there any changes and/or additions that you would like to make to your interview summary (e.g., is there anything missed, misrepresented, or needing clarification)?

2. What is it like for you now? Are there any changes, challenges, or transitions that you would like to mention?

3. Do you have any additional insights into what makes it possible for you to continue in your studies/pursue your educational goal?

4. Do you have any further suggestions for meaningful ways that Malaspina could support your persistence or quality of life, as a mature student?

Appendix E: Demographic Profile of Interview Sample

Age Category (Cohort)	
25-34	6 (50%)
35-44	1 (8%)
45+	5 (42%)

Elapsed Time/Gap in Formal Education	
1-5 years	3 (25%)
6-20 years	3 (25%)
21+ years	6 (50%)

Gender	
Female	6 (50%)
Male	6 (50%)

Enrolment Status	
Full time	8 (67%)
Part time	4 (33%)

Highest Education Level	
Grade 12/Equivalent	3 (25%)
Certificate/Diploma	3 (25%)
Undergraduate Degree	3 (25%)
Post-Graduate Diploma	1 (8%)
Other	2 (17%)

Educational Goal	
BA/BEd Degree	5 (42%)
BSc Degree	1 (8%)
General/University Prep	2 (17%)
ABE Upgrading/ESL	3 (25%)
Other	1 (8%)

Appendix F: Descriptive Profile of Interview Participants

Antonio[11].

Antonio is 47-years-old, married with two school-aged children, and has over 25 years experience as a faller in the forestry industry. Twelve years ago, he sustained serious shoulder and neck injuries from a tree fall. Since his accident, he has been battling the Workers' Compensation Board (WCB) to obtain retraining support for alternative work that will accommodate his physical restrictions and replace his earning power. While awaiting his WCB claim, he is currently completing a mix of Grade 12 upgrading courses and academic science classes at Malaspina to acquire the necessary pre-requisites for acceptance into BCIT's Nuclear Medicine Technology Diploma Program. Antonio is pursuing these courses independently, because he is determined to realize his long-term goal of becoming an MRI technician. He is committed to using his "brain instead of his brawn" to support his family and make a meaningful contribution to society. He has faced a series of bureaucratic obstacles, financial challenges, and family health concerns that have threatened to deter him from his education and career path. While it has been disheartening, and at times devastating for him to experience these setbacks, Antonio is firmly resolved to persevere with his plan.

Bunny

Bunny is 70-years-old and describes herself as having a "Bachelors Degree in the World" from her years of travel and work experience abroad. She has reached a stage in her life, with a supportive second husband, where she can devote time to her academic language courses. She is currently taking a 2nd-year Spanish class and plans to continue pursuing upper level courses, pending their availability. Throughout her life, Bunny experienced an arduous and deferred education path, that included: involuntary grammar school dismissal in England, with no encouragement from her family; a history of working as a laboratory assistant and manager to provide for herself and her husband in Canada, while receiving employer support to acquire university credits; graduating from McGill University with a Bachelor of Science Degree, as a divorced, 39-year-old; building a career as a chemist in the nuclear and waste management industries, prior to teaching chemistry at a community college; retiring and moving to Ladysmith, and finally being able to take university-level courses of interest for a nominal cost and at a relaxed pace.

Cara

Cara is a 43-year-old, single parent with a 16-year-old son who is currently taking Malaspina courses at North Island College. This semester, she is taking four courses with a mix of classroom-based and correspondence classes. She has also recently completed a supplementary course to become certified as a holistic nutritionist. It will be necessary for her to take third and fourth year electives at Malaspina's Nanaimo campus in September, 2008, to complete her Degree. Cara has also worked as a lunch hour supervisor for the past six years in

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11 Self-ascribed pseudonyms were used to protect participants' confidentiality.

her son's old elementary school. Cara is passionate about securing a health and wellness position in the Comox School District to teach elementary school teachers how to incorporate health and nutrition content into their curriculum. She is working towards her Bachelor of Education Degree to prepare her for a School District Resource position. Cara demonstrates a high level of motivation, determination, and clarity in the pursuit of her career goal.

Chloe

Chloe is a 25-year-old, recently married "Prairie Girl" who moved from Calgary to attend Malaspina University-College in August 2006. Her previous post-secondary and teaching experiences were helpful to her as a student returning to post-secondary education. Chloe completed a year of Business at the Saskatchewan Institute of Applied Science and Technology (SIAST) and then transferred to the University of Saskatchewan to embark on a year of arts and science study. This transfer year was a negative experience, resulting in Chloe discontinuing her studies and taking a year off to teach English in Japan. She eventually returned to SIAST to complete her Paramedics Certificate. Her work experience includes a one-year paramedic assignment and a series of progressive positions with a large insurance company based in Calgary.

Elmar

Elmar is a 72-year-old writer who is enjoying having a "first opportunity" to focus on his writing process in a structured academic setting. He has written fiction and journalistic pieces for most of his adult life. With the support of his second wife, Elmar made a spontaneous decision to enroll in university-college courses to earn a second Bachelor of Arts Degree in Creative Writing. It has been 32 years since he completed his first undergraduate degree in political science from the University of Waterloo. Elmar retired after working for 27 years with a varied employment history, including flight instructor, municipal property tax assessor, word processing operator, and taxi and bus driver. Currently, he is a volunteer tutor with a student at the Cowichan campus, and he helps another senior citizen with her computer. This semester, he is taking one creative writing course at the Cowichan campus and is enjoying the discipline of having to produce a writing project every two weeks for class critique. Elmar is making the most of his tuition-free courses, as a senior, and is looking forward to continuing his studies on a part-time basis, as close to his Mill Bay home as possible.

Krystahl

Krystahl is a 34-year-old, recently separated, single parent of two young children. After her marital break-up, she moved from the Mainland to live with her parents in Nanaimo. Her parents' support made it possible for her to enroll in the pre-requisite courses she needs to apply for the Dental Hygiene Program at Malaspina University-College. This is the first opportunity she has had to take university-college level courses, since graduating from high school 16 years ago. She has worked both full- and part-time in entry-level accounting jobs, while raising her family and supporting her husband through university. Krystahl is highly motivated to obtain an education that will enhance her career-prospects, thus enabling her to support herself and her young family.

Louis

Louis is a 31-year-old, married marine biology consultant who is completing the credits he needs to transfer into the UBC Engineering Program. He has significant post-secondary experience, having obtained two degrees (Bachelor and Master of Science) by completing courses at three universities and one community college. He is focused on acquiring the education and industry experience he needs to eventually take over his father's electrical contracting company in Vancouver. Louis made a conscious career and lifestyle choice to exchange his successful consulting practice for work in a more sustainable industry. He has ambitions to "make or break it" in the engineering field before starting a family and buying a house on the Mainland. He chose Malaspina with the intent of boosting his GPA, while also allowing him to consult part-time and live in an affordable community.

Lucy

Lucy is 30 years old and has recently moved from Edmonton with her husband to enroll in courses that will strengthen her graduate school application. She completed her Bachelor of Arts Degree at the University of Alberta in 2000, and worked as a landscape surveyor before teaching English in Taiwan for five years. She chose Malaspina because it was a small university-college close to home and she was offered early acceptance. She had also heard about the strong reputation of the Geography Program, with professors who are well connected to the field. She is highly motivated to do well this semester to improve her chances of gaining entrance into graduate school. When she returned from Taiwan and witnessed Edmonton's "urban sprawl," she made a pivotal decision to pursue a career in urban planning and design. Lucy is thoroughly enjoying her courses and finds that she is getting more out of her studies than she did from her first undergraduate degree.

Randy

Randy, a 56-year-old First Nation student, is divorced and has sole custody of his nine-year-old granddaughter. He quit school when he was 13-years-old to pursue work as a logger, commercial fisher, and pipeline worker. Throughout his many years of physical labour, he suffered several back injuries until he was placed on Workers' Compensation in 2002. He was denied long-term disability and was mandated to complete a series of training courses to maintain his benefits. Randy credits his drug and alcohol counselling training for giving him insight into the root causes of his own anger problems, for helping him deal with the tragic deaths of his daughter and siblings, and for providing him with the confidence to realize his education goal. He is completing pre-requisite courses to gain entrance into the Social Services Diploma Program in September, 2007. Randy is highly motivated to complete his Diploma Program to give his granddaughter a stable upbringing and to serve as a positive role model.

Ross

Ross is a 26-year-old, single international student from China, who is completing the required ESL courses to gain entrance into Malaspina's MBA Program. He selected the University-College based on its good reputation, its relaxed entrance requirements, and the chance to practice his language skills in a small, predominantly English-speaking community. The fact that he can obtain two concurrent graduate degrees in business administration and management science

was also attractive to him. He is taking three ESL classes, as well as an introductory anthropology course. His previous education includes an advanced diploma from China and one-year of study at a private college in Vancouver. Ross is focused on completing the MBA Program and learning about North American culture, with the ultimate goal of starting his own international trading company.

Wayne
Wayne is 28-years-old, single, working full-time in sales for a training company, while also teaching music part-time. He completed a Diploma in Music, straight out of high school, with course credits obtained from the University of Victoria and a university in Amsterdam. He is focused on obtaining the "piece of paper" that a Bachelor Degree offers to enhance his employment prospects. His experiences at Malaspina University-College have been mixed with respect to course delivery and quality instruction. He is taking three classroom-based courses and one online offering this semester, and is dissatisfied with two of these choices. Wayne feels strongly that his academic performance is dependent on quality teaching, specifically described as interactive and challenging, and consisting of enjoyable classes taught by knowledgeable and passionate professors.

Zoe
Zoe is a 53-year-old fiction writer, who is currently taking a creative writing course at Malaspina's Cowichan Campus. Although acquiring an Arts Degree is not her primary focus, she plans to continue taking writing courses that may eventually "build into a degree bundle." At present, her main goal is to focus on the craft of writing toward the ultimate aim of becoming a published novelist. When the Port Alice Mill closed, Zoe moved with her husband to Duncan. Zoe's gradual re-entry into post-secondary studies has been dependent on both location and timing. She has taken upgrading courses in Port Alice, non-credit courses at Camosun College, ongoing writing workshops in the community, and credit-based writing courses at Malaspina's Cowichan campus. As Zoe's family commitments are her first priority, she enrolls in courses only when she has a "block of time at home." She frequently travels to provide support for her 80-year-old mother, childcare relief for her daughter and son, and summer vacation care for her grandchildren.

Appendix G: Individual Factors Influencing Participants' Quality of Life and Retention

Influential Experiences

The second round of data reduction resulted in a summary of the Individual Factors and Quality of Life Indicators that were perceived by mature students to support their quality of life and retention. Participants' personal accounts of what contributes to their individual quality of life, defined as participants'' ability to enjoy the important possibilities of his/her life, are reported in alignment with the three core components of the Adult Quality of Life Profile, namely: Being, Belonging, and Becoming. In addition, a summary is included of the Institutional and External Factors that were perceived as Facilitators/Opportunities and Barriers/Obstacles toward attaining participants' goals and aspirations at the University-College.

Individual Factors

- Decisions to enrol in university level courses were triggered by major life transitions (e.g. separation/divorce, work-related injury, health setbacks, work-related relocation, involuntary job loss, or simply attaining a life stage where it was possible to realize educational goals).

- Decision-making was linked to careful planning and preparatory activities (e.g. weighing different educational options, considering the impacts on family, pursuing financial resources and assistance, and meeting with Educational Advisors for education planning). Adjustment was necessary to manage new routines, acquire self-discipline, balance school with other life commitments, and learn how to use resources efficiently.

- Embarking on education was viewed as a life-changing event and an empowering experience. While all respondents were strongly goal-directed in their educational pursuits, their goals were more varied than degree attainment, and included personal development aspects.

- A goal-directed approach to education was evidenced, wherein education was pursued primarily for changing career direction, enhancing employment prospects, preparing for program or graduate school entrance, seeking a more meaningful contribution to society, and enjoying the challenge and stimulus of learning.

- A strong achievement-orientation and a personal drive to do well were noted as assets and were seen to distinguish them from their younger peers. Students were motivated to drop courses or seek extensions for extenuating circumstances, so that grades did not suffer.

- A high level of motivation and determination was needed to manage school in the context of other life commitments.

- Educational goal attainment was viewed as role modelling for children and grandchildren.

- A strong work ethic, work-related skills (e.g., time management, organizational, and multi-tasking skills), and life experience were seen as academic advantages.

- Expectations of value for money resulted in critical assessments of teaching quality. Students expected knowledgeable, well-organized professors who made course expectations clear and who used teaching techniques and technology appropriately; students also expected challenging, interactive, inclusive and enjoyable classes–they had an awareness that their academic performance hinged on teaching quality.

- Ability to defer gratification and make sacrifices enabled participants to endure obstacles/discomfort, if they believed they were reaping longer-term benefits.

- Having an optimistic and resilient attitude was associated with a firm resolve to persist amidst adversity.

Quality of Life Indicators

Being

- Ability to provide for family and have financial security were critical aspects (e.g., injured worker pursuing re-training, First Nation student raising granddaughter, and participants being able to afford some extras like occasionally going to movies and restaurants).

- Integrating health and wellness activities into daily routines was important (e.g., caring for own health for the cancer survivor and student with heart condition, as well as safeguarding the health of family members and caring for son with diabetes).

- Maintaining a comfortable lifestyle while going to school was emphasized (e.g., having affordable housing, lower tuition, less fuel costs, and being able to walk home for lunch).

- Having a university-college infrastructure that supported school re-entry was influential (i.e., course location and timing that enabled students to work part-time and study on evenings/weekends).

Belonging

- Having a social circle and making friends in class was sought, as opposed to making friends outside of school.

- Meeting like-minded students and peers with similar life experiences was important.

- Having supportive relationships was a major factor (i.e., receiving the support of family, friends, and having professors who cared about students' welfare).

- Being surrounded by healthy people was mentioned by the First Nation student (i.e., being surrounded by other people who are on a "healing path").

- Having opportunities to maintain culture and discuss important holidays was raised by the International student (e.g., having Asian food in the cafeteria to promote healthy eating and to create an at-home feeling).

Becoming

- Students recognized the value of learning for its life enhancing qualities.

- Education was viewed as a way to make a meaningful contribution to society.

- Vibrant professors that stimulate and challenge students' thinking facilitated student development.

- Students gained confidence from the academic feedback they received (e.g., encouragement from professors to contribute to class discussions, and receiving good grades to validate academic potential).

- Students gave examples of taking advantage of opportunities to expand their horizons (e.g., Liberal Studies Abroad Program, interviewing author from Sierra Leone).

Appendix H: Institutional and External Factors: Facilitators/Opportunities and Barriers/Obstacles

Institutional and External Factors

Facilitators/Opportunities

- Receiving advanced credits from previous post-secondary institutions encouraged enrolment and helped sustain students.

- Flexibility in course scheduling enabled participants to take advantage of mixed offerings, both classroom-based and online, and access to evening and weekend courses accommodated work and facilitated timely degree completion.

- Ability to take concurrent course offerings expedited students' progress and integrated students into the academic culture earlier (e.g.ESL and academic courses, ABE and academic courses).

- Small class sizes were less intimidating, promoted interaction, and facilitated establishing rapport with professors.

- Mix of ages in the classroom raised energy, and offered a variety of perspectives and interaction opportunities.

- Relationships with professors were pivotal for encouragement, and included tangible support (e.g. for extensions on assignments and papers when work deadlines or family emergencies took priority, and for seeking clarification on specific course expectations).

- Positive classroom experiences and teaching strategies enriched learning (e.g. group work facilitated friendships, helped produce higher quality assignments, and generally enriched learning through shared ideas); also, the professor's ability to create inclusive, stimulating and enjoyable classes was mentioned as a critical component.

- A supportive institutional infrastructure and having access to support services eased students' transition into University-College (e.g. receiving early acceptance letters, warm welcomes from support staff, orientation tours, visits with educational advisors, and having access to well-appointed library facilities and tuition-free courses for seniors).

- Extracurricular activities and socializing outside of class were not sought due to time constraints or structural issues (e.g. when taking only one 3-hour course a week), although participants appreciated it when opportunities to socialize were integrated into course designs (e.g. group assignments, field trips, library tours).

- Previous post-secondary experiences helped to instil confidence and reduce the anxieties of re-entry; also receiving good grades and getting encouraging feedback from professors enhanced confidence.

- Gradual re-entry, by having a reduced course load (especially in the first semester), instilled confidence, raised GPA, and supported the development of study routines and life balance.

- Support from partners/spouses, family, friends, and employers helped students solve practical problems and made the school transition feasible (i.e. specifically in relation to childcare, tuition support, housing and shared household routines, and flexible work arrangements).

Barriers/Obstacles

- Older students expressed having fears about their abilities to meet expectations, sustain the pace required, access needed resources and figure things out, contribute to class discussions, and form relationships (e.g. concerns were raised about "sticking out like a sore thumb" and not being able to relate to younger students).

- Having significant family obligations that competed for students' time, energy and resources presented barriers (e.g. single parents and students with eldercare responsibilities were particularly affected). These commitments created financial pressures, as Student Loans were often not available or were inadequate to offset financial burdens.

- Feelings of being disconnected socially and segregated from peer groups were expressed. For some students, this created motivation problems when taking classes with younger students who did not share their interests or outlook. Other students reported having home stay arrangements that were isolating and boring, that they were shunned in group-work situations, or that they felt like an outsider or were culturally excluded.

- The health implications of returning to school were described by older students as feeling tired and stressed, having reduced energy, and carrying heavy backpacks.

- Unavailable courses for required pre-requisites and lack of access to local offerings (Cowichan campus) affected course continuity and timely degree completion.

- Inflexible course schedules, limited course options during evenings and weekends, and limited access to online courses were seen as disadvantaging working students.

- Life-role stress was experienced because students had little discretionary time/life balance due to juggling studies with work and other life commitments–this was especially the case for students enrolled in full-time studies.

- Students were not offered an introduction to campus or departmental resources and consequently they had difficulty locating appropriate study and storage spaces as commuting students.

- Language and cultural barriers were experienced–the International student was under significant family pressure to excel and integrate into Canadian culture and society, and

the First Nation participant experienced the burden of being a" first generation"
student.

Appendix I: Research Consent Form: Faculty

RESEARCH CONSENT FORM - FACULTY
"Mature Students' Persistence Study"
May, 2006

Lynne MacFadgen, Principal Researcher, Malaspina University-College, Faculty of Student Services Tel: (250) 740-6414; Fax: (250) 740-6464 Email: macfadgenl1@mala.bc.ca	*Additional Contact*: Dr. Patrick Ross, Vice-President Student Services Faculty of Student Services Tel: (250) 740-6411; Fax: (250) 6484 Email: rossp@mala.bc.ca

You are invited to participate in the Mature Students' Persistence Study which is being conducted to explore the factors that are associated with mature students' levels of commitment and persistence in their first year of post-secondary education. Of particular interest are those factors that contribute to adult learners' quality of life, and their decisions to complete their course of study at Malaspina University-College.

You will be asked to participate in a one-hour focus group, along with other Faculty members who are instructing in introductory science and general arts courses at Malaspina University-College. During the focus group, you will be asked to share your perceptions and insights about what contributes to students' decisions to persist in their studies or to withdraw.

The focus group discussion will be audiotaped and transcribed to capture central themes and issues. Results will be presented as summarized information (papers presented at ACCC and CSSE National Conferences in May, 2007), and a Final Written Report of Findings will be submitted to the Canadian Council on Learning (project funder) and to Simon Fraser University (to fulfill requirements of the researcher's EdD Educational Leadership Degree). No individual identifiers will be used when reporting project findings, to ensure strict confidentiality and complete anonymity. Only the principal researcher, and the senior supervisor will have access to focus group records, all of whom are committed to keeping the information confidential.

Your participation in this research study is entirely voluntary, and you are free to withdraw your involvement, at any time and for any reason, without consequence. You also have the right to ask questions and to decline to answer any questions during the focus group. You will be asked to review a summary of the focus group transcript to validate the information provided. The possible risks associated with participation in the research are considered minimal, and no greater than those encountered when negotiating daily life, while the potential benefits are expected to be significant in contributing to our understanding of adult learners' needs and challenges.

I have read and understand the above information and I voluntarily agree to participate in the Study. I have been offered to keep a copy of this signed consent form.

_____   _____
Participant's signature   Principal Investigator's signature

_____
Date

Appendix J: Descriptive Summary of Essential Meanings from the Faculty Focus Group

Teaching and Learning Experiences: Faculty Perspectives

- Generally, adult students are perceived to be focused, goal- and achievement-oriented, motivated to learn, able to readily engage in class discussions, and interested in their fields of study.

- Mature students value their education and have a good understanding of how education will contribute to their future opportunities. They engage in their studies at a higher level than their younger counterparts do, based on perceived educational value.

- Because they have competing life commitments and are concerned about their available time, adult learners apply themselves diligently and efficiently to their studies. This is recognized and appreciated by instructors.

- Mature students add a very positive dynamic to classes and provide a focal point for certain teaching and learning techniques. They also serve as role models for younger students by sharing examples of how their learning is applied in real-life situations.

- Adult learners are very diverse, and faculty need to be aware of individual and cohort-related differences to address individual needs and interests (within the broad 25+ adult age range, there are several cohorts). Instructors face different challenges when teaching adults who are primarily motivated by personal interests, versus more conventional academic goals.

- Faculty must be careful not to generalize and recognize that some students have very unique needs and challenges. For instance, some First Nation students may need additional support to acquire study skills and the required effort to succeed. Faculty must be alert to significant barriers that some students face and respond with care and flexibility. While older students may have much to contribute in discussions, they may need to be supported in class so that their contributions are appreciated and not resented by other classmates.

- Mature students have organizational and leadership skills that they readily apply to collaborative projects and group work in class.

- Adults take advantage of opportunities to meet with professors outside of class to discuss ideas and their assignments; thus, it is easy to make a personal connection with them. They are generally receptive to, and act on, instructors' suggestions and advice.

- Older students often have a sense of entitlement when pursing certain marks and this can place added demands on professors. In addition, their personal relationships with professors can lead to ethical dilemmas when students are advocating for higher grades.

Teaching and Learning Practices: Faculty Experiences

- It is recognized that students often have huge anxieties about writing based on negative school experiences. They may be taking certain courses only because it is a requirement for their degree program. The "hook," in this instance, is to convince students that their humanities courses are relevant. Instructors draw on and validate students' life experiences to instill confidence. Flexibility is also important (not relaxing standards) to help students complete their courses without fixating on grades.

- Specific examples are used in class that students can relate to (tailored to relevant eras, or cohort experiences). Faculty make efforts to draw students into discussions in ways that recognize previous life experiences and unique backgrounds. As an example, one faculty member gets students to introduce themselves at the beginning of the semester and shows an interest in students' backgrounds by bringing this information into class discussions. Another faculty member makes a point of sharing personal background information to acknowledge and recognize previous volunteer work and life experiences. Faculty members also talked about the importance of sharing relevant information about their personal and professional lives to reduce the distance between faculty and students (dispelling the ivory tower myth) and to make a genuine connection with students. It is also used to demonstrate the relevance of the humanities (i.e., viewing our lives as narratives).

- Faculty focus on creating a safe atmosphere for students to ask questions in class, and make a concerted effort to be approachable after class. They let students know that instructors are there to support them and that they are willing to help students achieve their potential.

- Email is used as a vehicle for connecting with students after hours (one faculty member invites students to ask course-related questions and/or send draft assignments for feedback). It is recognized that adult students may not be able to arrange meetings with faculty during regular office hours and that email is an efficient way to make a connection and provide reassurance. The key is to be flexible and offer alternatives.

- Faculty use group work and provide opportunities for in-class collaboration, but are mindful of the problematic aspects of these techniques. Mature students will often complain that some students are not pulling their weight in a group context, and others complain that mature students are not available after class for group meetings. One strategy used is to encourage collaboration in class, without ascribing marks.

- Lab activities offer students a chance to socialize and to assume responsibility for each other in a group setting that mirrors work and real-life contexts. It also offers a means to forge bonds between younger and older students and to promote classroom integration. Lab settings also benefit instructors by offering

opportunities to learn more about students' backgrounds and to recognize prior learning. One faculty member used the example of incorporating students' map reading skills and travel experiences into lab sessions.

- In some instances, field studies are offered within course designs to bring all students together as a more cohesive unit and to allow sharing of life experiences; all students and faculty were seen to benefit.

Suggestions for Improvement

- Reinforce the fact that Malaspina's small campus affords many opportunities for faculty and students to interact and get to know one another. Profile the open, adaptive, engaging, dynamic, and comprehensive aspects of our institution.

- Use discretion and flexibility when administering courses (e.g., offer assignment extensions when warranted, for mature students).

- Address course availability problems (e.g., monitor course reserves on pre-requisites courses) and make sure that there is sufficient flexibility in course scheduling when timetabling courses.

- Create socializing areas for students and faculty to meet informally and establish rapport; faculty considered socialization to be a critical component of students' education. Create social spaces in departments (one faculty member talked about how they converted a storage room into a sitting area to create a lounge). Find ways to fund and use new square footage creatively (e.g., put the coffee machine in the middle of open areas to promote interaction).

- Address parking problems for students who arrive after 8:30am (e.g., after dropping their children off at school). Find safe ways for commuter students to share transportation.

- Ensure that there is good administrative support in all departments, where warm, welcoming support staff greet students. Faculty feel strongly that we are moving away from more personalized service and creating a less inviting environment (i.e., establishing un-staffed computer kiosks across campus). Faculty are concerned that our automated telephone access and computer kiosks are not sending the right message to incoming students.

- Pay attention to our aging physical plant (e.g., address the fact that our bathroom ratios and cleaning schedules are not appropriate in some buildings). Improve general amenities on campus, especially for our more discriminating, mature students.

- Improve signage on campus and ameliorate the challenges that our "vertical" campus creates for older students. Encourage students to plan their courses in relation to any limitations presented by building access.

- Recognize that if we focus on recruiting older students, to make up our enrolment shortfalls, we may need to offer more remedial resources (e.g., it may be necessary to extend library orientation times for database searches, etc.).

Appendix K: Pan-Canadian Study Merged Dataset: Variable List for PCA and Model for Regression Analyses

Dependent Variables/Labels

Intent to Change/Transfer Program (DV 1)

> (SD) Strongly Disagree = You totally disagree with the statement
> (D) Disagree = You disagree more than you agree with the statement
> (U) Undecided = You neither agree nor disagree; you are undecided
> (A) Agree = You agree more than disagree with the statement
> (SA) Strongly Agree = You totally agree with the statement

EQ118.   Agreement rating:
> I may try to transfer into another program at the end of this semester.

EQ128.   Agreement rating:
> I'm beginning to think the program I'm taking is not what I want.

REQ135. Agreement rating:
> I will continue in my present program next semester.

EQ147.   Agreement rating:
> I considered dropping out of my program at least once this semester.

Intent to Leave/Continue Studies (DV 2)

EQ136.   Agreement rating:
> I may quit my studies before I finish my program.

EQ146.   Agreement rating:
> I may not continue with my studies next semester.

REQ129. Agreement rating:
> I will continue my studies at this college next semester.

Satisfaction with Faculty Relationships (DV 3)

EQ84.   How many of your faculty/instructors would you say showed an interest in helping students succeed?

EQ91.   How many of your faculty/instructors would you say made themselves available to meet with students outside of class?

EQ95.   How many of your faculty/instructors would you say had a good relationship with their students?

Satisfaction with Teaching Methods (DV 4)

EQ86.   How many of your faculty/instructors would you say encouraged student participation/involvement in class?

EQ87.   How many of your faculty/instructors would you say used the lecture method to teach classes?

EQ89.   How many of your faculty/instructors would you say incorporated group work or group discussions as a part of their classes?

EQ93.   How many of your faculty/instructors would you say provided opportunities to practice and apply new learning?

Satisfaction with Institutional Resources (DV 5)

EQ100.   Would you say your institution tries to help students and faculty interact regularly?

EQ101.   Would you say your institution is interested in helping students succeed?

EQ103.   Would you say your institution provides sufficient space for students to study in groups?

EQ105.   Would you say your institution has specific programs or strategies to help students adjust to college studies?

EQ107.   Would you say your institution makes sure students have the resources they need to learn?

EQ108.   Would you say your institution has the necessary services to support student learning?

EQ109.   Would you say your institution provides services to students so that using them is easy?

Educational Commitment (DV 6)

   (SD) Strongly Disagree = You totally disagree with the statement
   (D) Disagree = You disagree more than you agree with the statement
   (U) Undecided = You neither agree nor disagree; you are undecided
   (A) Agree = You agree more than disagree with the statement
   (SA) Strongly Agree = You totally agree with the statement

EQ115.   Agreement rating:
         It is important that I complete my program and obtain a diploma/certificate/degree.

EQ150.   Agreement rating:
         I am determined to finish my college education.

EQ122.   Agreement rating:
         I always try to do the best I can in whatever I do.

EQ131.　Agreement rating:
　　　　My studies are one of the most important things in my life.

Confidence (DV 7)

EQ116.　Agreement rating:
　　　　I am capable of getting a B+ average (78%) or better in my courses.

EQ138.　Agreement rating:
　　　　I have the ability to succeed in college-level studies.

EQ134.　Agreement rating:
　　　　I think I am well prepared to be successful student in college.

EQ148.　Agreement rating:
　　　　I am very certain that I will obtain a college diploma/certificate/degree.

Selected Independent Variables/Labels

Financial Concerns/Financing College (IV 1)

　　　(1) Don't know
　　　(2) Not at all concerned
　　　(3) Mildly concerned
　　　(4) Moderately concerned
　　　(5) Very concerned

EQ24.　Concern rating:
　　　　Having enough money to pay your college studies and living expenses this year?

EQ25.　Concern rating:
　　　　The amount of debt you think you will have by the time you complete your post-secondary education?

EQ26.　Concern rating:
　　　　Your ability to repay any student debt you accumulate within a reasonable timeframe?

EQ27.　On average, how many hours per week have you been working for pay during your studies this semester?

EQ110.　Agreement rating:
　　　　I could benefit greatly from special help in securing financial aid for my education.

EQ113.　Agreement rating:
　　　　Difficulty financing my studies may mean that I will have to leave college.

EQ142.   Agreement rating:
  Paying for my education is not going to be a problem for me this semester.

Peer Interaction/Friendships (IV 2)

  (SD) Strongly Disagree = You totally disagree with the statement
  (D) Disagree = You disagree more than you agree with the statement
  (U) Undecided = You neither agree nor disagree; you are undecided
  (A) Agree = You agree more than disagree with the statement
  (SA) Strongly Agree = You totally agree with the statement

EQ153.   Agreement rating:
  It has been difficult for me to meet and make friends with other students.

EQ156.   Agreement rating:
  Student friendships in college have helped me cope with stress of college life.

EQ158.   Agreement rating:
  The friendships I have developed in college are enjoyable.

EQ162.   Agreement rating:
  At this time I feel like I 'fit in' at this college.

EQ165.   Agreement rating:
  Since coming to this college I have become close friends with several students.

EQ167.   Agreement rating:
  Students I know in my program are willing to help each other with problems.

EQ169.   Agreement rating:
  I find it easy to make friends in new situations.

Faculty Interaction/Relationships (IV 3)

  (SD) Strongly Disagree = You totally disagree with the statement
  (D) Disagree = You disagree more than you agree with the statement
  (U) Undecided = You neither agree nor disagree; you are undecided
  (A) Agree = You agree more than disagree with the statement
  (SA) Strongly Agree = You totally agree with the statement

EQ152.   Agreement rating:
  I have developed a good relationship with at least one faculty member.

EQ154.   Agreement rating:
  My interactions with faculty have helped me better understand my future job.

EQ155.   Agreement rating:
         So far, college staff have been friendly and welcoming.

EQ157.   Agreement rating:
         Faculty in my program have been willing to help with course-related problems.

EQ160.   Agreement rating:
         Outside of class discussions with faculty have influenced my interest in ideas.

EQ161.   Agreement rating:
         College staff I have had contact with care about helping students with problems.

EQ163.   Agreement rating:
         Faculty have referred me to other staff on campus.

EQ168.   Agreement rating:
         If I needed extra help, I received it from my teachers.

Goal-Orientation (IV 4)

EQ121.   Agreement rating:
         I feel undecided about what my career will be after I finish college.

EQ117.   Agreement rating: I have chosen the program I am in because I have a particular career/job in mind.

EQ125.   Agreement rating:
         I feel that I'm making progress toward achieving my college goals.

Perceived Relevance of Studies (IV 5)

EQ114.   Agreement rating:
         This semester, I often thought what I was doing was a waste of time.

EQ151.   Agreement rating:
         I find most of what I am learning in my program irrelevant.

EQ119.   Agreement rating:
         I would decide to remain in college even if offered a full-time job.

EQ145.   Agreement rating:
         If I had a chance to have a full-time job I would take it and leave college.

EQ126.   Agreement rating:
         I would rather be working full-time than studying right now.

Perceived Advantages of College Education (IV 6)

EQ124.   Agreement rating:
         A student's writing skills can be improved with a college education.

EQ127.   Agreement rating:
Attending college creates a good foundation for future learning.

EQ132.   Agreement rating:
College graduates have a better chance of getting a good job than those who do not graduate.

EQ143.   Agreement rating:
A college education enhances a student's understanding of him/herself.

EQ149.   Agreement rating:
A college education develops a person's ability to think critically.

Appendix L: Correlation Matrix for All Items Comprising Faculty Interaction/Relationships (IV 3)

Items	Items							
	EQ152	EQ154	EQ155	EQ157	EQ160	EQ161	EQ163	EQ168
EQ 152 Agreement Rating: I have developed a good relationship with at least one faculty member		.451**	.379*	.413**	.448**	.396**	.269**	.390**
EQ 154 Agreement Rating: My interactions with faculty have helped me better understand my future job			.428*	.436**	.525**	.402**	.314**	.395**
EQ 155 Agreement Rating: So far, college staff have been friendly and welcoming				.589**	.373**	.552**	.200**	.457**
EQ 157 Agreement Rating: Faculty in my program have been willing to help with course-related problems					.437**	.569**	.236**	.543**
EQ 160 Agreement Rating: Outside of class discussions with faculty have influenced my interest in ideas						.450**	.376**	.438**
EQ 161 Agreement Rating: College staff I have had contact with care about helping students with problems							.279**	.478**
EQ 163: Agreement Rating: Faculty have referred me to other staff on campus								.256**
EQ 168: Agreement Rating: If I needed extra help, I received it from my teachers								

N ≤ 5832, Pearson Correlation **$p < 0.01$, *$p < 0.05$