Motivation & Success:
An Exploratory Study of Aboriginal Students in the University of Manitoba's
Special Pre-Medical Studies Program

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A Thesis Submitted to the Faculty of Graduate Studies,
in Partial Fulfillment of the Requirements for the Degree of

MASTER OF EDUCATION

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ABSTRACT

The purpose of this study is to explore the factors that influence Aboriginal students to apply to and be successful in the University of Manitoba's (U of M) Special Pre-Medical Studies Program (SPSP), to explore their initial motivation to apply to the program and to identify which supports they believe they will most help to keep them enrolled. This study involved a comprehensive content analysis of the autobiographies that Aboriginal students submit when applying to   SPSP. The results of the content analysis allow readers to understand the goals and beliefs of the students before entering the university. The use of the completion status variable to the autobiographies allows initial conclusions to be made about what motivated them to apply and if a life changing event factored into this decision. Finally, conclusions are made on how initial goals, beliefs and determination affect student success in completing their program.

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CHAPTER I – INTRODUCTION

Education has been called "the key that unlocks the door to the future" (Indian and Northern Affaires Canada [INAC], 1996, p. 161). Although there are many things that can be learned outside the classroom, a formal education has become increasingly important in today's workforce.

According to the 2001 Aboriginal People's Survey (APS), there has been a positive change in the level of post-secondary education attainment for non-reserve Aboriginal students. In 2001, 8% of off reserve Aboriginal people aged 25 to 34 had completed university as compared to 5% in 1996. As large numbers of people retire and leave the workforce in coming years, employment opportunities will exist for many well educated young Aboriginal people. Given the increases in post-secondary education attainment it would seem that Aboriginal youth are making strides that would contribute to their success in the paid labour market. However, the APS indicates that there are still obstacles to overcome. Although the rates for post-secondary education attainment are increasing for Aboriginal youth, they are increasing for non-Aboriginal youth as well. This means that the gap between Aboriginal and non-Aboriginal post-secondary attainment remains.

With respect to labour market participation, Aboriginal people between the ages of 25 to 54 have seen improvements in employment rates but again, the gap remains between the off reserve Aboriginal and non-Aboriginal populations. In 1981, Aboriginal people had an employment rate of 58% as compared to 75% of non-Aboriginal people. By the 2001 Census the Aboriginal population had a 65% employment rate compared to 80% for non-Aboriginal people.

Demographic profiles of Canadian population growth indicate that the Aboriginal population has been increasing at almost twice the rate of the non-Aboriginal Canadian population (Manitoba Aboriginal Affairs Secretariat & Human Resource Development Canada [MAAS & HRDC], 2002, p. 30) and given that Aboriginal birth rates are still higher than that of the general population this trend is continuing.

With respect to Manitoba, Statistics Canada's 2001 Census reports that 150,040 Aboriginal people lived in the province, accounting for 14% of Manitoba's total population. This is the highest concentration of Aboriginal people in all the provinces and 10% higher than the national average.

Also reported in the Census is the fact that the Aboriginal population in Manitoba is young and increasing in number. In 1981, the Aboriginal population in Manitoba was 66,280 or 7% of the total Manitoba population, by 1986 this had risen to 93,450 or 9% and in 1991 the Aboriginal population in Manitoba had increased to 116,200 or 11% of the total population[1]. The increases in the Aboriginal population have been due to a higher birth rate than non-Aboriginals and a decreasing mortality rate. According to a joint federal/provincial report, *Aboriginal People in Manitoba* (2002) "the factors which have been linked to the growth in the Aboriginal population are: (1) a greater propensity to declare Aboriginal origins; (2) the effects of Bill C-31, [which were threefold: (a) to reinstate 'Indian Status' to those individuals who had lost or were not allowed Status through previous versions of the *Act*, (b) changes to the 'status inheritance rules,' which under the new *Act* gave registered Indian Status at birth that could not be lost or restored and, (c) to allow First Nation Bands to establish their own Band membership rules]; (3)

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[1] Aboriginal populations in the 1991 Census and earlier were based upon ethnic origin or ancestry, and figures from these Censuses are not comparable with the 1996 census.

improved Census coverage of remote and urban populations; and (4) more diligent Indian Act registration of young children" (p. 13, 23, 24).

In 2001, 55,760 or 37% of Manitoba's Aboriginal population lived in Winnipeg which is about equal to the number of Aboriginal people living in Nunavut, Yukon and the Northwest Territories combined (Statistics Canada Census, 2001). Most of Winnipeg's Aboriginal people are concentrated in the inner north end of the city and 80% of these Aboriginal residents fall below Statistics Canada's Low Income Cut-off (MAAS & HRDC, 2002, p. 85).

Although statistics show that Aboriginal women have experienced declining birth rates over that past six Census', the birth rate is still higher than non-Aboriginal women (at 2.6 compared to 1.8) (MAAS & HRDC, 2002, p. 30). With the large numbers of young Aboriginal children moving into their reproductive years, comes the guarantee that the Aboriginal birth rate will remain extremely high in Manitoba for several decades, even with the declining birth rates.

The Research Problem

Despite the proliferation of support programs in Canada over the past 20 years, few Aboriginal students have successfully completed post-secondary education. In 2001, only 6% of the Aboriginal population (25 years and older) in Canada had completed a university degree, compared to 24% of the general population (APS, 2001). Part of the reason behind these low rates is within the institutions themselves. Being the new student on campus in a large university is terrifying for many young adults, but for Aboriginal students university life is different from anything they have ever experienced. It is larger, louder, more impersonal and faster paced than

anything most Aboriginal students have seen previously - especially in the loss of family, friends and community.

Then there is the additional barrier of history. Aboriginal people's fear of formal education dates back to the assimilation policies of the Canadian government in the 1870s. "These assimilationist methods were failures but [also] resulted in low educational attainment and resulting poverty" (Hampton and Roy, 2002, p. 3) for Aboriginal people. Approximately 50% of Aboriginal Manitobans 25 years and older have less than a high school education, which is 22% higher than the figure for the general Manitoba population (Statistics Canada Census, 2001). This gap between educational attainment for Aboriginal and non-Aboriginal Manitobans is smaller at the high school and trade/non-university education levels but increases again at the university level by 13% (Statistics Canada Census, 1996).

Aboriginal high school completion rates have improved throughout the 1990s but are still much lower than that of the general population. Graduation rates vary by Aboriginal group; from a high of 57% for Métis students aged 30-39, to a low of 15% for Status Indians on reserve aged 50 plus (MAAS & HRDC, 2002, p. 53). Manitoba's university graduation rate of 3% is typical among the provinces (MAAS & HRDC, 2002, p. 53). This low graduation rate results in Aboriginal people being under-represented as both students and faculty in post-secondary institutions in Canada (Monture-Angus, 1995). This issue was corroborated by the joint federal/ provincial report, *Aboriginal People in Manitoba* (2002);

> The age distribution of the non-Aboriginal population has important consequences for the demands for certain social services, now and in the future. Most obvious, close to one third of Aboriginal people are in the primary and secondary school age population, compared to less than one fifth of the non-Aboriginal people. There is also greater potential demand for post-secondary education and vocational training, a demand that will increase dramatically as the large cohort of Aboriginal children aged 14 and under grows into the working age population. Finally, the labour market will need to absorb increasing numbers of Aboriginal youth over the next few decades, or social institutions

will need to absorb the consequences of a failure to absorb these youths into the labour market. (p. 28)

The response by most institutions is to assist Aboriginal students in adapting and becoming more integrated into the culture and fabric of the institution so that they can be retained until graduation. This response often results in Access programs, which offer special counseling and support services to assist Aboriginal students in their transition to university life. Despite the Access programs having increased the retention rates of Aboriginal students, their efforts alone do not create the desired results of full and equal participation.

As previously mentioned, Aboriginal people make up approximately 14% of the total population of Manitoba, yet they represent only 7% of the post-secondary enrollments at the universities, and 6% of the total undergraduate student population at the University of Manitoba (U of M) in 2001 (APS, 2001 & Council on Post-Secondary Education [COPSE], 2004, p. 7). As indicated, the growth in this section of Manitoba's population is quickly outpacing that of the non-Aboriginal population. By 2021, the Aboriginal population is projected to increase by 47% (INAC, 2002, p. 16) while the rest of the Manitoba population remains stable.

Purpose of the Study

The purpose of this study is to explore the factors that influence Aboriginal students to apply to and be successful in the Special Pre-Medical Studies Program (SPSP), to explore their initial motivation to apply to the program and to identify how personal goals and determination affected their success. Historically, retention theories have been designed specifically for the traditional, able bodied, 18 to 24 year old middle-class male, who resided on campus. But over

the past 25 years student demographics have changed to include women, students from different ethnic backgrounds, physically disabled individuals and older students (Bean & Metzner, 1985; Guppy & Bednarski, 1993; Johnson, 1991; Stahl & Pavel, 1992). Researchers have begun to create models that may predict retention of non-traditional students as well as students in the growing variety of higher education institutions (Pascarella & Chapman, 1983), as seen in the use of Kirkness and Barhhardt (1991) and Hampton and Roy's (2002) research in this thesis.

Since the literature review revealed little about the success or failure of Aboriginal students in university, the Researcher conducted an exploratory study to gather as much information as possible from a Manitoban Aboriginal perspective.

In order to keep the research focused; this study will examine the university careers of all Aboriginal students enrolled in the SPSP at the U of M between 1998 and 2000. Aboriginal students were chosen because they have lower high school and post-secondary completion rates as well as lower labour market participation rates in Manitoba. SPSP was chosen as it is a pre-professional program which requires specific skills in math and science, which are common programs for Aboriginal students to have difficulty in because of the lack of qualified teachers at the secondary level in northern Manitoba.

Research Questions

The following are the research questions to be used in this study. They were formed based on the data above and the results of the literature review.

1. What factors influenced/motivated SPSP students to apply for the program? How did this contribute to their success in the SPSP program?

2. What factors did a personal life changing event play in a student's decision to apply and in

    their success in the SPSP program?

3. How much did personal goals and determination play in their success?

Definitions and Terms

Aboriginal: People who self-identify as North American Indians, Métis or Inuit or are registered

under the *Indian Act* of Canada.

APS: Aboriginal People's Survey.

Completer: Those students who successfully complete their prescribed degree.

FIPPA: *Freedom of Information and Protection of Privacy Act*

First Nation: A term that began replacing Indian in the 1970s. Now widely used, the term

describes both Status and Non-Status Indian people. Many Indian people have also adopted the

term First Nation to replace band in the name of their community. (Métis National Council - As

quoted by Manitoba Aboriginal and Northern Affairs, 2007)

HRDC: Human Resource Development Canada, now Human Resources and Social Development

Canada

INAC: Indian and Northern Affairs Canada

MAAS: Manitoba Aboriginal Affairs Secretariat

Métis: A person who self-identifies as Métis, is of historic Métis Nation ancestry, is distinct from

other Aboriginal peoples and is accepted by the Métis Nation. (Métis National Council - As

quoted by Manitoba Aboriginal and Northern Affairs, 2007)

Non-Completer: A student who has left the U of M prior to completing their degree and is not an academic or voluntary withdrawal.

Non - Status Indian: Those people not registered under Canada's *Indian Act*.

PEPS: Statistics Canada's Post-secondary Education Participation Survey.

SPSP: Special Pre-Medical Studies Program.

Status Indian: A person who is registered under the Indian Act of Canada. (Métis National Council - As quoted by Manitoba Aboriginal and Northern Affairs, 2007)

U of M: University of Manitoba.

UMAP: University of Manitoba Access Program.

YITS: Statistics Canada's Youth in Transition Survey.

Summary

The fact that the Aboriginal population in Manitoba is young and increasing in size should be cause for concern. This population is also the least educated, the least likely to remain in school, has the highest birth rates, and the lowest incomes. There are far reaching consequences for the province as a whole if attention is not paid to this population. It has been said that "education is the key to unlocking the future" (INAC, 1996, p. 161) and a "correlation between educational attainment and employment, economic well being and health has been well established" (R.A. Malatest & Associates Ltd., 2004, p. 5). Thus, an increased effort towards educating our Aboriginal population in Manitoba is a good beginning. The most logical first step is to find ways to retain more of the students that have already chosen to attend post-secondary

education. To begin this, one must examine why Aboriginal students require extra support from a

program such as SPSP.

CHAPTER II - REVIEW OF THE LITERATURE

A review of the literature is required to determine the critical issues affecting success or failure of Manitoba's Aboriginal students. The literature suggests that students' likelihood of remaining in post-secondary education though graduation depends on the level of social and academic integration into university life. This integration depends on a number of characteristics that the students hold before they enter post-secondary education and those they gain during and afterwards.

For years American researchers have studied Hispanics, Blacks, low income students and minorities in higher education and the Australians have begun to study their indigenous population, but Canada has undertaken little research on our Aboriginal people and how they have faired in post-secondary education. Therefore, much of the background research for this review will be based on American models of retaining minority and Aboriginal students in higher education and the Australian research will be added where applicable. Although the educational system and economies of the United States and Australia vary widely from the Canadian system, there are many factors that affect all students in their transition to higher education. In her paper, *Creating an Affirming Culture to Retain African-American Students During the Postaffirmative Action Era in Higher Education*, Jones (2001) suggests that there are "many factors that all students, regardless of ethnicity, experience in their move towards and into post-secondary education" (p. 8). Barring any major differences in economics and the educational system, this Researcher argues that this is just as true for Canadian students as it is for American students. The factors that Jones mentions are:

1. "The need to adjust to a new environment, a different value system and an intensified awareness of one's own ethnic minority status;

2. The need to receive adequate financial aid;

3. The need to perceive the social and academic climate as inclusive and affirming;

4. The need to establish long term goals, short term objectives and a commitment to both; and

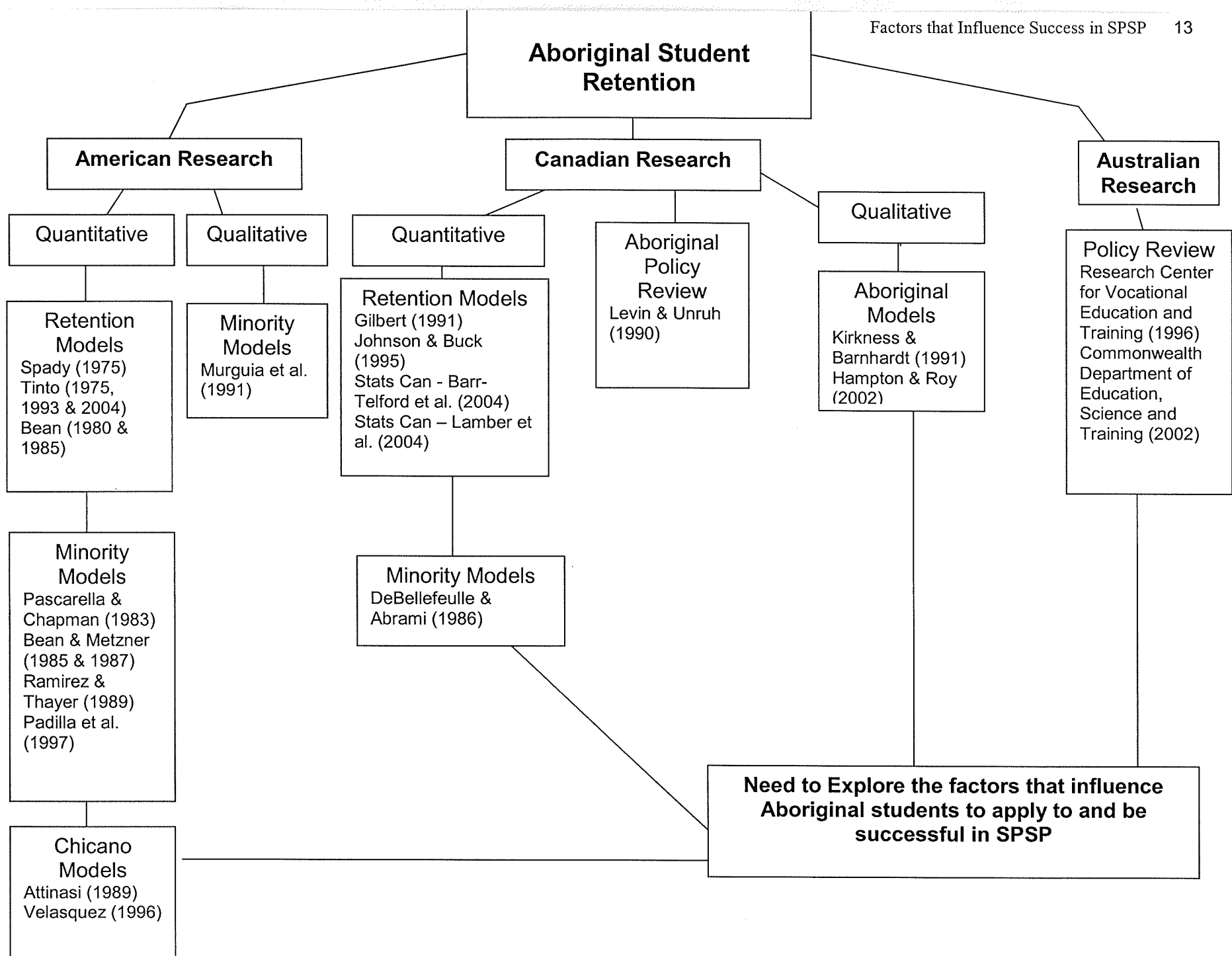5. Background characteristics that are conducive to successful achievement of personal goals."

(p. 8-11)

Attrition and Retention Models

Canada has not been front and center in retention research for Aboriginal or minority students. In order to begin breaking ground a detailed historical look at the available Canadian, American and Australian research must be examined. Theories on ethnic minorities and black students will also be used to fill out the history. The Researcher is undertaking this study with the knowledge that the American and Australian systems are different from our system in Canada and that the results may not necessarily be the same as in those countries. But as this is an exploratory study which is attempting to break 'new ground' in a historically under-researched segment of the Canadian population it makes sense to start with what is known and improve the methodology with time and experience.

Figure 1 gives a pictorial overview of the attached literature review and how each area leads to the gap in retention research and the main research question of 'the factors that contribute to an Aboriginal student's success or failure in the SPSP program'. The literature

review itself is written in chronological order beginning with American research, followed by the

available Australian and Canadian research.

Aboriginal Student Retention

American Research

Quantitative

Qualitative

Canadian Research

Quantitative

Qualitative

Aboriginal Policy Review
Levin & Unruh (1990)

Australian Research

Retention Models
Spady (1975)
Tinto (1975, 1993 & 2004)
Bean (1980 & 1985)

Minority Models
Murguia et al. (1991)

Retention Models
Gilbert (1991)
Johnson & Buck (1995)
Stats Can - Barr-Telford et al. (2004)
Stats Can – Lamber et al. (2004)

Aboriginal Models
Kirkness & Barnhardt (1991)
Hampton & Roy (2002)

Policy Review
Research Center for Vocational Education and Training (1996)
Commonwealth Department of Education, Science and Training (2002)

Minority Models
Pascarella & Chapman (1983)
Bean & Metzner (1985 & 1987)
Ramirez & Thayer (1989)
Padilla et al. (1997)

Minority Models
DeBellefeulle & Abrami (1986)

Need to Explore the factors that influence Aboriginal students to apply to and be successful in SPSP

Chicano Models
Attinasi (1989)
Velasquez (1996)

American Retention Models

Spady's (1975) model of attrition is based on his study of Durkheim's (1966) theory of suicide. As noted in Andres and Carpenter (1997), "Durkheim argued that suicide is a result of a person breaking ties with the social system because of a lack of integration into society. Spady claimed that these types of integration directly affect student persistence or withdrawal. [Suggesting that withdrawal] is a result of students not integrating into the higher education environment" (p. 12). Family background characteristics, according to Spady, are one of the many sources that affect students with outside expectations which in turn affect their integration level. Full integration into post-secondary education means that the student must meet the demands of the institution's social and academic spheres.

Tinto (1975) expanded on Spady's model by applying exchange theory. Exchange theory states that individuals withdraw from college when the cost of their investment (time, energy and resources) outweighs the benefits of remaining. As the students continue their education, several variables influence, what Tinto calls the 'student-institution match'. When students enter university, they bring a set of background characteristics that influence their experience in post-secondary education, i.e., family background, individual attributes and pre-university schooling. Combined, these characteristics influence each students' commitment and goal of completing their program. "Tinto measures successful academic integration through grade performance and [...] social integration through the development and frequency of contact with peers, faculty [members, as well as] involvement in extracurricular activity. The stronger these commitments are to the institution, and the goal of completing, as well as the higher the levels of academic and social integration, the less likely the student will be to withdraw" (Andres & Carpenter, 1997, p. 14). Tinto (1975) also notes that a person can be integrated into the social aspects of an

institution and still withdraw from the institution because they are not integrated on the academic side. Thus the need for both academic and student supports.

Tinto's theories have been confirmed and refuted in the last twenty-plus years but his model was specifically designed for the traditional, able bodied, 18 to 24 year old middle-class male, who resided on campus. Although Tinto's (1975) model is considered comprehensive (Guppy & Bednarski, 1993; Tierney, 1992; Pascarella & Terenzini, 1987), as it provides a general theory of student participation, it does not leave a lot of room to look at those non-traditional students, which include women, mature students, visible minorities, those with special needs (Bean & Metzner 1985, 1987; Guppy & Bednarski, 1993; Johnson, 1991; Stahl & Pavel, 1992) and Aboriginals who do not live on campus.

Bean's (1980) model of attrition was based on Price's (1977) model of employee turnover in industrial organizations and adapted it to student withdrawal from post-secondary education. Price's model stated that internal issues affect employee satisfaction and thus their decision to stay or leave. Bean added personal background characteristics (high school performance, socioeconomic status, state of residence, distance from home to university, and hometown size) to Price's model in order to examine how they influence the student-institution fit. Bean found a causal relationship between background characteristics and institutional factors, which led to institutional commitment or withdrawal.

Pascarella and Chapman (1983) tested Tinto's 1975 model of student attrition in predicting retention in non-traditional post-secondary institutions. Pascarella and Chapman's model of college withdrawal was meant to test the validity of Tinto's model for three different types of institutions four-year residential, four-year commuter, and two-year commuter institutions. They found differences in the influence exerted by different types of institutions on student retention. According to Pascarella and Chapman, social integration plays a stronger role

in retaining students at four-year residential institutions, while academic integration is more

important at two and four-year commuter institutions.

Bean (1985) studied the factors affecting post-secondary education withdrawal. Although

normally the factors most commonly cited for student withdrawal are academic integration,

social integration, institutional selection and the socialization of students. In this model, Bean

found that peers were more important in socialization than faculty contacts. Furthermore, Bean

found that academic, social-psychological and environmental factors affect socialization/

selection factors such as college grades, institutional fit and institutional commitment.

Bean and Metzner's (1985) model of non-traditional student withdrawal concludes that

there are four variables that affect attrition: academics (past and present GPA); intent to

withdraw; demographic variables; and environmental variables (finances, hours of employment,

outside encouragement, and opportunity to transfer).

Bean and Metzner (1987) found that non-traditional student[2] attrition was affected more

by the external environment than social interaction. Social integration was not found to be

significant for the non-traditional group, while GPA and institutional commitment directly

affected a student's withdrawal decision through its impact on the perception of usefulness in

finding employment (as cited in Andres and Carpenter, 1997).

Ramirez and Thayer (1989) use a combination of two theories called the asset model

and the ecological model. The assumptions behind their model are that all students admitted to

an institution are capable of succeeding and that the institution has the responsibility to create an

environment in which all of these students (both minority and majority) can succeed. Under this

model, minority students are defined as "those students from ethnic backgrounds historically

underrepresented in American higher education. [But this term can also be applied to] any group

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[2] Defined as "older than 24, lives off campus, part time student, or some combination of these factors; is not influenced by the social aspects of the institution; and is concerned with academics.

that finds itself the minority with respect to the predominant population on a given campus"

(p. 18).

Ramirez and Thayer believe that institutional retention must come out of the belief that a

diverse student body is an asset, and that this must be apparent to the general student body, so

that all students feel their participation in that institution is meaningful. In order to accomplish

this, Ramirez and Thayer emphasize the importance of student connectedness to the institution

during the transition period and throughout each student's academic career.

Attinasi's (1989) interest in minority student retention has arisen from the low

percentage of college graduates in the Mexican American population in the United States. In his

work he examines school going behavior at three points in time: before, at the point of, and after

college entry. Attinasi attributes the low percentage of the Mexican American population

graduating from college to the high attrition rates at the elementary and secondary levels, which

decreases the available pool of students eligible for university entrance.

Attinasi's model is based on an exploratory study using qualitative interview data from

Mexican American students and their persistence decisions. He believes that a qualitative study

using in-depth interviews is the best format because the present models of student retention

"present conceptual and methodological shortcomings" (p. 250). He says they are "grounded in a

framework that was used to explain some other social or socio-psychological phenomenon; and

they have been developed on the basis of and tested with, data collected from institutional

records and/or by means of fixed choice questionnaires" (p. 250). Attinasi believes that these

research models strip away the real meaning of the students' persistence decisions and loses the

students' perceptions of the withdrawal process.

In his conclusion, Attinasi states that for Mexican American freshmen:

1. the effects of background variables on college persistence are mediated by the influences of
   family and peers;

2. following in the footsteps of an older sibling attending college influences both the decision to
   go to college and the decision to stay; and

3. social integration influences student persistence by means of assisting the student to deal
   with university life.

Attinasi's believes that researchers do not have a clear enough understanding of the
minority students' persistence decision from the current models and therefore he proposes an
exploratory study to gain some insight on the way these people think. To begin this process he
used personal interviews with a limited number of Mexican American students, he then used the
insights that he gains to lead into more detailed future research.

Murguia, Padilla and Pavel's (1991) model used qualitative analysis to explore the role
of ethnicity in Tinto's 1987 model of integration. They proposed that by modifying the concept
of social integration, Tinto's models could be used for ethnic minority students. Murguia et al.
found that an individuals' ethnicity is rooted both "biologically (from the parents) and socio-
culturally (through family and friends)" (p. 436). This ethnicity then produces a sense of self
identity. According to Tinto (1987), successful students are more integrated into the social aspect
of campus life but that this integration occurs in smaller sub groups. In 1989, Attinasi found that
students attending a large university would find smaller sub groups to minimize the impact of
the social, physical and academic environments so that they could deal with them. Once the
students were integrated into the smaller version of campus life, they can then deal with the
larger campus as they choose.