2015-02-03

Examining Indigenous Students' Persistence in a Hybrid Pre-Nursing Transitions Environment

Snow, Kathy

UNIVERSITY OF CALGARY

Examining Indigenous Students' Persistence in a Hybrid Pre-Nursing Transitions Environment

by

Kathy Snow

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE OF DOCTOR OF EDUCATION

GRADUATE DIVISION OF EDUCATIONAL RESEARCH

CALGARY, ALBERTA

January, 2015

ABSTRACT

Transitions programs to support non-traditional students have been in existence in Canada since the educational reform movement of the 1970s (Malatest & Associates, 2004). Scholarly research in the success of such programs is frequently presented in terms of institutional directives such as retention and attrition and success is is typically measured by graduation rates. Despite investment in these programs, more than thirty years later there still exists a considerable gap between Indigenous students' graduation rates and those of their non-Indigenous counterparts, with significant numbers of students dropping out of university programs within the first year (Statistics Canada, 2011).

The goal of this exploratory case study was to determine what attributes of the design and structure of a hybrid learning environment encouraged positive persistence decisions. The case was positioned within the first year of an Indigenous Pre-Nursing Transitions (PNT) program in a western Canadian university.

Scholarly literature on persistence and community models such as Tinto's (1975) Student Integration Model and Wenger's (1998) Community of Practice were evaluated for their applicability to non-traditional students. Data collection took place over one academic year and consisted of interviews with student and faculty participants, as well as observation of online activities within two required biology courses. The results of this case study demonstrated the complexity of community membership for Indigenous students. Further, the results highlighted the importance of a one-to-one relationship with the instructor and student expectations about this relationship. Other factors that contributed to positive persistence decisions were scale of the environment and structure of course content.

ACKNOWLEDGEMENTS

Borrowing from the language of Marie Battiste in her collected essays on educational reform entitled *Warrior Women*, I would like to thank the warrior women who made this project possible. I want to acknowledge the brave and generous women who allowed me to walk with them for a year in their trials and successes within the pre-nursing program. They taught me so much more than can be captured in writing.

I must thank Deirdre Desmarais and Louise Olsen, who advocated for the research project and supported me throughout.

Dr. Jennifer Lock, my dissertation supervisor, provided the foundation for my journey. Without her guidance and patience, I would still be writing Chapter Five. As well, I must thank the other members of my supervisory committee: Dr. Sharon Friesen and Dr. Gregory Lowan-Trudeau. Their perspectives and advice improved the final piece a great deal.

Finally, to my mother and my daughter: you are both warriors in your own way as well.

Miigwech

Ethical editing of this thesis was completed by Virginia McGowan PhD (Senior Researcher, Writer and Editor, *McGowan & Co.: the Write Edit Group*), according to the guidelines of the Editors' Association of Canada and as authorized by the thesis supervisor, Dr. Jennifer Lock.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

Introductory Statement

This research investigated the institutional and instructional factors that impacted Indigenous students' persistence decision-making processes in a Pre-Nursing Transitions program. The case study was framed by current literature concerning persistence models, hybrid learning, transitions programs and Indigenous educational theory. It became apparent through the literature review that a gap in knowledge existed with regard to both the empirical evidence of success of transitions programming for Indigenous students and the applicability of persistence models and hybrid learning to Indigenous student populations. The development of this case study was designed to contribute to knowledge in this area. The research design involved establishment of an exploratory case study that examined students' persistence decision-making process over the duration of one academic year.

Background

In a review of the history of university development, Seimans and Matheos (2010) suggested that universities have continuously adapted to reflect societies' needs and values. An important example of revision is the adaptation of university program offerings and access for non-traditional students that occurred across Canada in the 1970s. This change saw the development of Access/Transition programming for Indigenous students that reflected changes to global educational policy directed towards increasing access and reducing the elitism associated with higher education (Malatest & Associates Ltd., 2004). Access programs have been credited for playing an important role in supporting Indigenous students' higher education completion (Williams, 2004). However, the gap between Indigenous and non-Indigenous students' university

participation remains, with Statistics Canada recently reporting a 24.3% difference between these two groups' completion rates (Statistics Canada, 2011). Very little information could be found in the current scholarly literature to explain how or why Access and Transitions programs were effective; much of the evidence located was termed in the language of institutional needs (retention and attrition) rather than student needs (persistence). In the few qualitative studies that were found that examined persistence (Astin, 1984; Barnhardt, 1994; Guillory & Wolverton, 2008; Larimore & McClellan, 2005; Reyhner & Dodd, 1995), the importance of academic preparation, family support, faculty support, institutional commitment and the ability to maintain an active presence in home communities were identified as critical features impacting students' desire to persist. It should be noted that much of this research was dated and evaluated persistence models using Tinto's (1975) student integration framework that was designed and implemented with traditional students and face-to-face communication in mind.

Technology has changed much of the way we are able to communicate. Current research in education is actively exploring open forms of education as well as re-defining presence, attendance and participation in higher education and education generally as brought about by changing technological affordances (Garrison, 2011). As universities once built libraries to shelve the massive increase in book production brought about by the printing press, how do they now respond to the growing population of non-traditional learners who demand alternative forms of education, support and access?

Finally, although more flexible and open access processes now exist in traditional higher education, Indigenous scholars such as Marie Battiste (2013) argued that colonization continues through education and there is a need for Indigenous People to

make their voices heard to begin to decolonize or re-frame thinking around education in Canada. This research sought to bring these three areas of research together to determine what role technology can play in impacting the persistence of Indigenous students and improving the offerings of Transitions programming.

Context of the Study

The western Canadian university that served as the home for this case study (referenced as the University throughout this document) announced one of its key strategic priorities was to make the University a national centre of excellence for Indigenous education (Barnard, 2011). Despite heavy investment in Transition and Access programs and continuous revision in response to literature on best practices for Transitions program design, attrition rates for Indigenous students remained high relative to non-Indigenous students at the University (Olsen, 2012). This raised an important question about the effectiveness of these supports. The Access and Transition programs at the University followed many of the known best practices with regard to design and development of programming (Association of Canadian Community Colleges (ACCC), 2010; Anonson, Desjarlais, Nixon, Whitemand, & Bird, 2008; Gregory, Pijl-Zieber, Barsky, & Daniels, 2008; Hardes, 2006): they were multi-faceted and consisted of a variety of supports and resources to help students adapt to the institutional academic environment. The resources included revisions to the entrance requirements for self-declared Indigenous students alongside pre-university orientation workshops, curricular add-ons that introduced cultural content, preparatory credit courses, mentoring, tutoring, academic advisement, financial and personal counselling, housing and childcare assistance. The students who participated were a very diverse group who may have been of First Nations, Métis or Inuit descent; they may have lived on reserve, or in the suburbs

or inner city environments. The University adopted cohort groups in an attempt to increase peer-to-peer support, but there was minimal time available in students' timetables to dedicate to structured community building events. Due to the high level of attrition, cohorts did not remain stable and were restructured annually (L. Olsen, personal communication, January, 2012). The application of technology within Transition programs was limited to the optional use of the University-selected Learning Management System (LMS). Where technology was applied, it reinforced the current institutional paradigm by predominantly disseminating information by means of instructor-controlled content and communication.

Deconstructed Transition program offerings appeared to be based on two main premises: (a) the mitigation of perceived and predicted deficits on the side of the students (McMullen & Rohrback, 2003), with the solution being to proactively mitigate these deficits, and (b) that students needed to adapt to the current structure of the University by following a highly structured path predicted and controlled by information transmitted from the University to the student.

Statement of the Research Problem

The lack of research evidence that exists concerning the application of blended and hybrid learning strategies to Indigenous Transitions programs highlighted the need for more investigation in this area. The problem this research aimed to interrogate was the impact of hybrid learning on persistence for Indigenous students. By examining the facilitation of online community and the re-definition of structure that may be afforded by the application of a hybrid learning strategy, the research aimed to discover the essential conditions needed in the design of the Pre-Nursing Transitions (PNT) program that could lead to increased Indigenous student persistence within the program.

Research Questions

Given the identified gap in the literature related to Indigenous students' persistence in Transitions programming, the research sought to examine persistence decisions specifically. The literature available in the areas of persistence, Indigenous education and Transitions programming highlighted the importance of community integration and membership as key to encouraging persistence decisions. Research in technology-enhanced education indicated the potential positive impact of hybrid learning for non-traditional populations; accordingly, these areas were highlighted for further study.

The following questions guided the inquiry:

1. What attributes of the design and structure of a hybrid learning course within Transitions programing impacts students in terms of persistence?
2. What factors influence community development within a Transition program for Indigenous students?
3. What conditions do students identify as critical to persistence decisions?

Significance of the Study

The Indigenous population in Canada is the fastest growing demographic in the country (Aboriginal Affairs and Northern Development Canada, 2012). The 2011 census results indicated that only 9.8% of Indigenous people aged 25-64 held an undergraduate degree (Statistics Canada, 2011). Although generally the 2011 statistics represented a positive shift in educational attainment for young Indigenous People, shortages in culturally relevant practitioners existed in many areas, including nursing. Provincial and federal government initiatives have been developed to address real and predicted shortages of Indigenous health care providers (Wilson, 2007). Part of the University's response to these initiatives has been the development of the Pre-Nursing Transitions

(PNT) program, which (as measured by student attrition rates) has not met projected outcomes (L. Olsen, personal communication, January, 2012).

The cause of attrition in this case was unclear, thus the proposed case study had real and tangible benefits for the host institution with regard to clarifying the persistence decisions made by students at the University. Available research indicated that Indigenous nursing students who were more likely to desist their studies struggled with language and mathematical skills (Manifold & Rambur, 2001). Baker (2010) reported faculty views on the effectiveness of retention strategies for minority student retention, but no literature could be found that reported student perspectives. Therefore, the evidence provided by this case study research aimed to present a student-centred evaluation of the effectiveness of Transition programs.

In an investigation of Australian Transition programs, Fleet and Kitson (2009) criticized Transition programs as being providers of short-term add-on "fixes" rather than actual support mechanisms to address the broader changes needed to combat the discrepancy between Indigenous and non- Indigenous students' persistence. Fleet, Wechmann and Whiteworth (2012) outlined the need for support networks including the collaboration between university, family and community to support students as one of the most significant factors enabling students to persist.

Examining the student and program impacts holistically has not conventionally been the approach taken by scholars. The history of Canada's colonialist past and continued Eurocentric approach to education is recognized to have played a role in Indigenous students' entry and persistence within higher education, however (Battiste, 2013). The significance of this case study research lies in its ability to deconstruct traditional

teaching and learning practices and provide some evidence for alternative approaches to increase student success as measured by persistence.

Introduction to the Researcher

As is traditional in any research involving Indigenous Peoples, it is important at this juncture to outline the role of the researcher in the study. The researcher in this case is a non-Indigenous person, a third generation Canadian of European descent who, despite growing up in a settlement in northern Canada, can never truly comprehend the extent to which her background as white and middle class determines her interactions with the world. The bias that is brought to the research from her position of "other" cannot be discounted. The researcher is greatly indebted to the women who chose to share their lives with her and allow her to begin to understand what it means to be an Indigenous student at the University.

Definitions and Key Terms

The following definitions of key terms were used for the purpose of this research. Several of the terms below have alternative definitions, but the definitions provided here should clarify how these terms were used in the context of this research:

- **Hybrid Learning:** The organic integration of thoughtfully selected and complimentary face-to-face and online activities. Hybrid learning does not involve the reduction of face-to-face class time.
- **Online learning:** Learning delivered by computer or mobile technology via the Internet.
- **Attrition:** A decline in the number of enrolled students within a course, program or institution.

- **Retention:** Continued student participation in a learning event to completion, which in higher education could be a course, program, institution or system.
- **Persistence:** A continuous learning process that is the result of students' decisions to continue their participation in the learning event under analysis.
- **Indigenous Student:** Any student who self-declares to be of First Nations, Métis or Inuit heritage, regardless of official status.
- **Non-traditional Student:** Any student who identifies with a socio-economic, cultural or age group outside of the statistical norm currently present in higher education. Among others, this includes mature students, students of non-European descent and students who are the first members of their family to enter university.

Boundaries of the Study

The study was restricted to a single university program and examined a single cohort group within that program. Time to complete the research, paired with financial limitations, also demarcated boundaries to the development and construction of the case. Quantitative data collection occurred within the context of two courses within the pre-nursing program that were taken consecutively by Indigenous students in the fall and winter terms of the 2012–2013 academic year; accordingly, the study was delimited to a small sample size corresponding to the pre-nursing program cohort size. The study was also restricted to the question of persistence within PNT and did not examine where students went when they ceased to persist if their choice was other than the Faculty of Nursing.

Organization of the Study

The research is organized into five chapters:

- Chapter One, Introduction: This chapter includes the introduction to the study, background for the research problem, statement of the research problem, the research questions, the significance of the research study, the delimitations and limitations of the proposed research and the definitions that frame the work.
- Chapter Two, Literature Review: This chapter includes an introduction to the chapter and a review of the literature that defined the case, including the identified theoretical framework.
- Chapter Three, Research Methodology: This chapter begins a summary of the research design and outlines the specific research questions examined. The rest of this chapter includes the rationale for the research design.
- Chapter Four, Research Findings: This chapter presents the emergent themes from the collected data as well as the critical conditions identified for persistence decisions.
- Chapter Five, Discussion of Findings, Implications and Conclusion: In this chapter, the results of the analysis are discussed in contrast to current literature in the field. The significant insights and observations of the research are presented, as well as recommendations for practice based on these findings.

CHAPTER TWO: LITERATURE REVIEW

Introduction

Chapter Two provides a critical review of the scholarly literature that informed this study. It includes an analysis of the literature related to persistence, Indigenous students' needs, transitions programs, hybrid learning and community. This literature review was conducted through an online search of three university libraries (University of Calgary, University of Manitoba and Cape Breton University) with access to large electronic databases such as EBSCOHOST and ERIC. Search terms used included Indigenous education, nursing education, student success, transition program, access program, persistence, hybrid learning, blended learning, communities of practice, communities of inquiry and retention. The reference lists from selected titles were also reviewed for further sources of information on relevant topics.

The literature review was organized into six sections in order to describe the research problem. First, the theoretical framework that guided the research was clarified in order to state the researcher's position and bias. Second, given the primary focus of the research was to gain a greater understanding of students' persistence decisions, the literature review examined persistence models. Third, a review of literature focused on an examination of Indigenous students' needs. The institutional response to non-traditional student enrollment comprised the fourth section of the review.

Both scholars of persistence and Indigenous education debate the importance of the need for community integration. This became the fifth line of inquiry in the literature review. The sixth and final section focused on hybrid learning, which is often referred to as a "disruptive technology" because of its potential to deconstruct what we think we know about teaching and learning; this literature was reviewed with regard to its

applicability to Indigenous students participating in Transitions programs. The chapter concludes with a synthesis of the literature and identification of the conditions impacting persistence that need further exploration.

Theoretical Framework

Critical theory is an ever-changing approach to understanding our world that examines power structures, who holds power, who does not and how power distribution affects people in a specific context (Kincheloe & McLaren, 2002, p. 89). Critical theory has been selected as the theoretical framework to guide this research because it is a useful tool for deconstructing colonialism and Eurocentric educational systems' impact on Indigenous student success. Higher education's response to program development is often based on assumptions that non-traditional students come from a disadvantaged position with regard to content knowledge and skills (McMullen & Rohrback, 2003), while critical theory aims at promoting consciousness of the organizational and institutional structures in place in society that create these perceived disadvantages. The purpose of raising awareness about the biases inherent in organizational structures is to inform society about the inequalities that exist because of non-conformation to the dominant culture. The main aim of critical theory is to legitimize the knowledge of marginalized groups functioning within and on the margins of the dominant structures in order to empower them to transform their lives and environment (Kincheloe & McLaren, 2002). The key assumptions of critical theory are that our current state is defined and dictated by historical class struggles and that conflict still exists (Kincheloe & McLaren, 2002). This claim has reverberated throughout Canada with calls for educational reform and Indigenous control of Indigenous education. Prominent Indigenous scholar Marie Battiste (2002) stated that it is only through breaking with Eurocentric traditions that Indigenous

students can begin to reclaim self-identity, achieve self-determination and reduce the achievement gap in post-secondary education. In her book *Reclaiming Indigenous Voice and Vision*, Battiste (2000) shared concrete examples of the impact of colonial approaches to education in the past and proposed the way forward. Each of the stories in this edited collection is grounded in a critical evaluation of Indigenous ways of knowing in contrast to that of the Eurocentric majority. Critical theory may act as an effective lens to examine Indigenous students' persistence by bringing this contrast into focus.

Critical theory also assumes that a cyclical process of investigation and reflection leads to action (Kincheloe & McLaren, 2002). Kincheloe (2001) described this process as *bricolage*, where multiple perspectives are analyzed synergistically relative to an issue, then revisited based on the new interpretations that each perspective brings. Bricolage encourages a greater number of lenses on an issue, which is also critical to the exploratory nature of case study.

Descriptions of Persistence

Persistence was defined as a continuous learning process that was the result of students' decisions to continue their participation in the learning event under analysis. Using research literature related to theories of persistence, this section describes the theoretical factors informing students' persistence decision-making processes. This initial overview was used to inform the research design. The most commonly cited theories of persistence, as determined by "top hits" in three separate university library database searches, were:

1. Tinto's student integration model (1975).
2. Astin's theory of involvement (1984).
3. Rovai's composite model for persistence (2002).

4. Berge and Huang's model for persistence (2004).
5. HeavyRunner and DeCelles' family retention model (2002).

Student Integration Model

Tinto's Model of Integration has formed the basis of research and theory on student retention and persistence in higher education for over forty years (Tinto, 1975, 2006). Tinto argued that academic integration is the single most important factor in predicting persistence (Tinto, 1975, p.104). Tinto's description of the process of integration was founded on six dimensions: pre-entry characteristics of the student, student goals and commitment to institution, institutional experiences (both academic and social), personal integration and emergent goals leading to final commitment to stay or leave the institution (Tinto, 1975). Tinto (1997) also claimed social integration must begin in the classroom, as the classroom is the student's primary contact point within the institution.

Despite decades-long application of the integration model, empirical testing has not been able to provide conclusive support for Tinto's claims (Braxton, 2008). Tinto, himself claimed this absence of evidence may be a result of his narrow definition of students as those people attending a full-time degree credit program and making the separation from home for the first time (Tinto, 1997). In other words, students who do not fall within this definition are outliers, potentially confounding results. More interestingly, it is the model's potential to improve conditions for the "outliers" that has maintained its traction in the academic community (Tierney, 2008).

In an attempt to better describe the activities of non-traditional students, Bean and Metzner (1985) revised Tinto's model to apply to older and/or part-time students. They proposed that non-traditional students are not concerned with academic integration but

rather academic offerings, because they enter university with a specific qualification goal in mind and already have support structures in place (Bean & Metzner, 1985). It is the mechanical process of determining "institutional fit" that determines persistence rather than integration (Bean & Metzner, 1985). In response to this and other similarly founded critics, Tinto (2006) reduced his persistence model to three essential factors: an institutional student-centred approach, commitment on the side of the student and the facilitation of learning communities, with this last point changing the focus from academic integration to community membership. Karp, Hughes and O'Gara (2008), in response to claims that the Model of Integration is not relevant for adult learners or commuter students because they have stronger ties outside of the educational setting, thus making social integration inapplicable, found that social integration did indeed develop. However, the Karp et al. (2008) study indicated that social integration was associated with academic integration and occurred primarily within the classroom rather than the larger institution, beginning with information sharing networks.

Over time, Tinto has modified his theory further to better reflect current student populations who may not be leaving home for the first time or who may not be members of the dominant culture's middle class. However, his work appears to maintain assumptions based on his original views of the business of education. For example, his most recent publication *Completing College* (Tinto, 2012) offered the suggestions of providing "summer school" as a bridging program from high school and improving first year advisement offerings, while making no mention of new technologies available that could potentially allow for more frequent or prolonged connections with university members at times better suited to non-traditional learners.

Theory of Student Involvement

Alexander Astin (1984) offered an alternative model of persistence-based student engagement rather than integration: the Theory of Student Involvement. Astin (1984) suggested the more engaged a student is with the institution, the higher the likelihood they would persist. Astin (1993) defined involvement as spending time on campus and participating in the institutional community and in classroom settings. Alternatively, students who were more likely to leave were described as those who neglect their studies, spend less time on campus and rarely initiate contact with faculty or other students (Astin, 1993).

Kuh, Kinzie, Schuh, Whitt and Associated (2005) attempted to further define Astin's concept of involvement by proposing that student persistence included not only student engagement in the institution but institutional engagement in the student. Stated simply, the better the faculty and administrators are at engaging students, the more effort the students put forth. This model was influenced by social constructivist theory and student centred and active learning approaches that inform popular educational institutional thinking today.

Current literature in the field of "best practices" and teacher education is dominated by suggestions that active learning leads to greater engagement, which leads to greater completion rates (Kuh et al., 2005; Motteram & Sharma, 2009; Raush & Crawford, 2012). A notable case from higher education was presented by Vaughan (2010) who specifically set out to test the relationship between engagement and retention by interrogating the impact of course redesign from one of passive reading to inquiry/activity-based engagement. In Vaughan's case, results indicated a significant reduction in the number of withdrawals or failures. Vaughan (2010) also cautioned that in

order for engagement to be maintained his approach must be undertaken at the institutional level and not just implemented in individual classes. Both of the aforementioned models from Astin and Tinto focused primarily on soft skills, seemingly suggesting if you work hard enough, if you invest enough time, you will be successful because involvement and engagement lead to persistence. However, the gap between these models was twofold. First, it was assumed success comes as a result of persistence and vice versa; secondly, it was assumed that engagement and involvement would enhance skill. Although there was some consideration of differentiation of skill in Tinto's (2012) suggestions of student-centric approaches, this appears to be an add-on to what would otherwise be mainstream approaches, in other words, addition of structures that assist in assimilation and standardisation of results. Rovai (2003) offers an alternative model that more clearly acknowledges the differentiation of skills.

Composite Model for Student Persistence

In his proposed Composite Model, Rovai (2003) used student characteristics and skills prior to admission as well as post-admission external and internal factors to determine persistence. The Composite Model evolved from the work of Tinto (1975) and Bean and Metzner (1987). With the Composite Model, Rovai attempted to capture the multiple factors that influence students to stay in a program or course. Though integration into the university community remained a central component of his theory, Rovai's model also attempted to describe the scaffolding needed to mitigate the factors that can adversely affect persistence. Rovai added new variables in existing categories of the Tinto (1975) model related to technology skills, study skills and learning styles theory. The inclusion of learning style as an internal persistence factor is a significant change from previous models. Rovai (2002a) made the suggestion that when students' learning styles do not

match that of the program, they are less likely to persist. Alternatively, according to Rovai (2003), the addition of scaffolding that enabled students to solve problems increased students' self-esteem and contributed to their willingness to participate in the community and subsequently persist in their studies. The underlying assumption was that students lacking knowledge that allowed them to participate in the learning community were less likely to persist. Rovai's persistence model was designed to explain non-traditional student enrolment in distance and online courses, where technical knowledge can be a huge detriment to participation in the technically-mediated environment.

Rovai also added a new category to the Tinto (1975) model that related specifically to distance education. Using Rovai's (2002a) Classroom Community Scale, Ritter, Polnick, Fink and Oescher (2010) found evidence to support Rovai's claims that a high level of community could be developed in online classrooms through appropriate scaffolding. But Rovai (2003) maintains community membership may play a less important role for mature students. Rovai also suggested the use of a hybrid model for teaching as "the best of both worlds" (Rovai, 2003, p.13) because it allows students to self-pace using online scaffolding in addition to the face-to-face component of a course.

The Sustainable Model

The three previous models have been problematic in describing students' actions because they were based on narrow definitions of students and learning contexts. In an attempt to present a more inclusive or all-encompassing model of persistence that could be applied to any context with any students, Berge and Huang (2004) developed the Sustainable Model of Retention. In this model, variables impacting persistence are placed in three key functional groups: personal, institutional and circumstantial. This model is purported to be "context sensitive" (Berge & Huang, 2004, p. 13), allowing institutions to

develop retention response to students' needs. Similar to Bean and Metzner (1985), the sustainable model is premised on the assumption that students continually undergo a cost/benefit analysis when choosing to participate or not to participate in a particular event. Therefore, both students and institutions can identify specific variables in these three functional groups when making decisions to persist or when developing programs leading to persistence that is highly contextual to student, institution and event. Although appearing to provide a holistic approach to student retention, this model has neither been widely tested nor reviewed in academic circles.

Family Retention Model

Iris HeavyRunner and Richard DeCelles (2002) have proposed the Family Retention Model as a better way to better predict and plan for Indigenous students' persistence. Through an examination of successful practices at tribal colleges (schools dedicated to Indigenous students and founded on Indigenous pedagogies), they have been able to provide evidence that suggests enrolment in a tribal college prior to traditional higher education enrollment increases students' persistence and success rates based on the fact that tribal colleges are established around principles of family. In the Family Retention Model, the university community empowers students by working to become part of students' extended family through the sharing of traditional wisdom and the development of support structures.

Conclusion

All five persistence models examined the importance of community integration in some form, but also highlight the need for more research with regard to non-traditional students. Academic engagement on campus, as outlined by Astin (1984), encouraged persistence, but learning in a hybrid environment is also suggested as an alternative

mechanism for participation by removing barriers and providing scaffolding (Rovai, 2002a). Rovai's (2002) addition of the alignment of learning styles as a factor in persistence decision is repeated in the Family Retention Model of HeavyRunner and DeCelles (2002). Berge and Huang (2004) attempted to capture the complexity of persistence decisions in a more holistic model that is context sensitive. The applicability or success of any of these models relative to Indigenous students' persistence was not evident from this review of the literature. The one model that was developed by Indigenous scholars to describe Indigenous persistence has yet to be evidenced clearly in the scholarly literature.

Finally, it is noted that all persistence models presume that students enroll in university with graduation as their main goal (Pickrell, 2008), but recent research suggests the importance of broader measures of student success, ones that take into account personal goals, gender impacts and marginalized student (Berger & Lyon, 2005; Braxton & Hirschy, 2005; Kuh et al., 2005). The tipping point in the departure decision may include not only effective institutional experiences but personal motivations and measures of success (Sloane-Seale, 2011).

The Relationship Between Culture and Persistence

These five persistence models represent the most commonly accepted theories related to retention, attrition and persistence found in the scholarly literature today, but they are by no means the only theories. There is a body of literature dedicated to retention of minority students in higher education that suggests inclusion of culturally aligned faculty members who are specifically available to minority students for information and feedback (Baker, 2010). Most of the literature falls into the established and familiar categories of persistence as outlined earlier in this review, however, with various provisions of

scaffolding and connections to academic community (Noone, 2008; Swinney & Dobal, 2008; Wilson, Sanner, & McAllister, 2010). Nonetheless, compiling them into a single model for persistence would be an over-simplification based on the false assumption that all minority students are the same. Therefore, the question to be examined is: Does culture matter?

Current literature suggested there are definitive differences between Indigenous ways of knowing and the traditional Western or Eurocentric educational system (Battiste, 2005; Bell, 2004; Friesen & Friesen, 2005; Haggan, Brignall, Peacock, & Daniel, 2002; Kanu, 2011; Kovach, 2009). Ladson-Billings (1998) stated that one of the challenges for the academic success of marginalized populations in North America is that unexamined cultural assumptions are deeply ingrained in traditional views of education. Furthermore, an oversimplification of issues, such as the "one size fits all" diversity initiatives of many institutions can result in educational approaches that fail to account for the complex historic, geographic and cultural epistemologies found in diverse Indigenous communities (Kitchen, Cherubini, Trudeau, & Hodson, 2010). Therefore, students' culture must be considered when examining persistence in higher education.

Indigenous Students' Experience with Higher Education

Within the Canadian context there is evidence that suggests the aforementioned conflict between Indigenous ways of knowing and the Eurocentric deductive approach to knowledge acquisition has contributed in part to lower graduation rates for Indigenous students (Landon, 2012; Whitely, 2014; Zinga & Gordon, 2014). Pamela Toulouse (2007), an Ojibwe scholar, has put forward the argument that Indigenous Peoples' academic success is inherently tied to self-esteem and identity, which she also describes using the medicine [holistic] wheel. The circle, often referred to as a medicine wheel, is

one of the most widespread symbols found among North American Indigenous cultures (Canada Royal Commission, 1996). The medicine wheel is viewed by many North American Indigenous Peoples as an essential tool for understanding self and one's place in the world (Laframboise & Sherbina, 2008).

Although interpretations of the medicine wheel differ, it is always circular and describes four directions: north, east, south and west. Each direction may be attributed different meanings based on the cultural heritage of the speaker, but each reflects attributes of an individual's life that should be kept in balance with the attributes of the other directions (Landon, 2012). For the purpose of further description, the directions have been defined as the spiritual (north), emotional (east), physical (south) and mental (west) aspects of an individual as outlined by Manitoba Education and Youth (2003).

It is important to recognize that Indigenous students, like all students, are diverse and this characterization is neither an attempt at stereotyping nor classifying Indigenous students, but rather this is an attempt, from the position of "other," to understand what Indigenous students see and experience when they enter higher education.

One of the major criticisms of investigations into Indigenous learning styles was that researchers often apply an essentialist framework which reduces a diverse population to a homogeneous entity (McCarthy, 1998). Regardless of, or perhaps because of, the heterogeneous nature of Indigenous student populations entering higher education, social and academic integration into the higher education community remains elusive and is considered to be one of the major factors impacting persistence (Bastien, 2004; Martin & Kipling, 2006; Timmons, 2009). In seeking new knowledge, the format of this section of the literature review will be organized around the medicine wheel in the direction in which the sun travels, from east to west; however, the process is circular and each of

these directions will be revisited in Chapter Five as the findings from this study are re-examined from this holistic perspective. It is also important to note that the descriptions that follow are incomplete and limited by both academic writing conventions as well as the lived experience of the author.

The East: Emotional

The key tenet of this domain is reflexivity (Toulouse, 2011). It involves an analysis of one's participation in life including self-talk as it translates into actions with the self and others (Toulouse, 2011). The academic difficulties encountered by Indigenous students have been well documented in the academic literature (Levin, 2009; MacIver, 2012; Richards, Vining, & Weimer, 2010). However, the causes of Indigenous students' difficulties are not widely explored (Whitely, 2014).

Previous research indicates fear and mistrust of school systems may leave students in an emotionally conflicted space (Landon, 2012). Indigenous students often enter school with a sense of distrust based on the historical colonizing educational policies of the Canadian federal government (ACCC, 2010; Whitely, 2014). Students' apprehension is also based in current events where Indigenous students have reported social marginalization, verbal and psychological abuse, discriminatory application of rules and presupposed low expectations of academic achievement (Zinga & Gordon, 2014). In addition, Kanu (2011) reported that Indigenous students find the Eurocentric conceptions of the collaborative processes alienating because they are not based on a concept of community that aligns with Indigenous students' world view. This sense of alienation is compounded by the fact that, for Indigenous students, a learning community cannot be singularly defined; the students' diverse cultural norms and backgrounds lead to a wide variation of expectations (Kanu, 2011). This is not surprising given the blanket term we

use to identify Indigenous students, that is, as individuals who self- identify as belonging to one of the 600 different First Nations tribes, or Métis or Inuit communities.

Another factor impacting the eastern domain is competing community membership. Family and higher education communities may be perceived as mutually exclusive groups. Indigenous students may consider their family and home community more important than educational and personal pursuits; therefore, family needs often take priority over higher education and cause students to leave when the two conflict (ACCC, 2010; Gold, 2011; Larimore & McClellan, 2005). Strong commitments to family members and a lack of academic role models can leave many Indigenous students feeling isolated while attending university (Gold, 2011). This can be compounded by a fear of ostracism from their home context in which a successful Indigenous student could be perceived as being as being too educated for their community (Hardes, 2006; Landon, 2012).The lack of role models in the home community and social discrimination on campus have also been identified as significant barriers to students' integration into the university community.

As a consequence of these factors, students may experience serious personal conflicts as they seek to re-define their own identity (ACCC, 2010). To counter-balance these barriers and encourage persistence, research indicates that higher education institutions should create opportunities for community development that respect the values of Indigenous students (Martin, 2005; Ortiz & HeavyRunner, 2003).

The South: Physical

The physical domain refers to the basic necessities of life, food, shelter, health and well-being (Toulouse, 2011). For many Indigenous students, starting university means leaving a large support network at home, which can impact an individual's sense of well-

being. For example, leaving home community also involves finding and paying for safe and suitable housing in an urban centre. This challenge has been identified as one of several issues related to the costs associated with post-secondary education that can influence a decision to leave (Statistics Canada, 2010). In fact, financing post-secondary education has been listed by the Assembly of First Nations (AFN) as the greatest barrier to success of First Nations students (AFN, 2012). Many First Nations families have incomes well below the average in Canada, therefore supporting family members to attend post-secondary is also a burden many families cannot afford in the light of more basic needs such as food, housing and health care (AFN, 2012). Indigenous students tend to delay their start of post-secondary education for a variety of reasons, including financial (Statistics Canada, 2010).

Additionally, as adult learners Indigenous students may enter university with more complex family responsibilities. As cited by 23% of individuals surveyed in the 2006 Aboriginal Peoples Survey conducted by the Association of Canadian Community Colleges (ACCC), family responsibilities was the top reason for incompletion of secondary studies (ACCC, 2010, p.7). Families living on a tight budget may find the cost of purchasing books and computers or paying tuition on specific deadlines difficult (AFN, 2012). Lack of access to course content or tools to support learning can also place students at a disadvantage (AFN, 2012). More Indigenous women are enrolled in post-secondary education than men, and they are more likely to have dependents, which impacts the type of supports they require. For example, they may need access to reliable and affordable childcare services (ACCC, 2010; Kitchen et al., 2010). Malatest (2004) found the demands of the family in terms of both financial and time constraints significantly impact Indigenous students' successful completion of higher education.

Traditionally, institutions of higher education have responded to physical needs through the provision of family-like support systems in the form of liaison offices, friendship centres, daycare and on-campus housing, as well as financial supports including tuition and travel expense bursaries (AFN, 2012; Hardes, 2006). These measures have proven successful in reducing some of the constraints listed above, but do little for others, in particular for those students in remote locations where educational achievement is statistically lowest (Statistics Canada, 2010).

Distance education has been suggested as the solution to this issue because it enables students to remain in their home communities where they can access the educational resources they need (Ambler, 2004; Gruber & Colevin, 2009; Holdsworth & Dahlquest, 2004; Moore & Kearsley, 2005). Web-based courses offer students the opportunity for interaction not only with the instructor but also with other students in a way that is different from traditional higher education instruction (Beard, Harper, & Riley, 2004). In practice, northern communities in Canada have had limited access to the Internet and it has been a challenge to find support staff and facilities in remote communities that can provide students with stable and consistent access; these problems can result in learner discouragement and disengagement in their program of studies (Holdsworth & Dahlquist, 2004; Hulton, 2005; O'Donnell, Perley, Simms, & Hancock, 2009). Distance education courses also run the risk of "dehumanizing" education when they are not designed in accordance with the students' cultural norms (Wetsit, 1999).

The West: Mental

This domain is best described as the cerebral activities of a person. It includes the belief of lifelong learning not bound to the classroom but through experiences of being an inquisitive human being (Toulouse, 2011). From an Indigenous viewpoint, every learner

is unique in his or her own learning journey (Battiste & Henderson, 2009; Munroe, Borden, Orr, & Meader, 2014). Learning requires less dependence on books and more on "gardening" or interacting with living knowledge keepers (Bartlett, Marshall, & Marshall, 2012). As previously illustrated, Indigenous students may feel isolated at university because of difficulties in perceiving a sense of belonging, or connecting to or gaining access to their institution (Friesen & Friesen, 2005).

One way students may increase their sense of belonging in an educational institution is through engagement with course materials (McGiveny, 2004). Generalizations about Indigenous students' learning styles claim that Indigenous students prefer learning through storytelling, observation and modeling, that is, the use of visual sensory modalities with scaffolding and community (Barnhardt & Kawagley, 2005; Kanu, 2011; Slee, 2010). Cajete and Pueblo (2010) objected to these generalizations and claimed that education should be considered as a process of individual transformation complete with individual complexities. This is reflected in earlier discussions by Gorman (1999), who stated that education from an Indigenous perspective is a life-long process of advancing skills and talents based upon self-identified interests. Furthermore, while Indigenous communities place a high level of importance on respect for Elders and those who are skilled or knowledgeable, relationships are less hierarchical and more collaborative in supporting individual students (Zapf, Bastien, Bodor, Carriere, & Pelech, 2000). Bartlett, Marshall and Marshall (2012) suggested an "integrated" approach to learning that involves identifying students and teachers as co-learners, is respectful of both parties distinct knowledge, attempts to find common ground and emphasizes the importance of both knowledge systems working together.

The North: Spiritual

The spiritual domain refers to all those thoughts, activities and rituals that connect a person to the world. The key tenet of this domain for Indigenous Peoples is the belief in a purpose greater than self (Toulouse, 2011). It is in the spiritual domain where Indigenous culture is affirmed and shared (Landon, 2012). Within the spiritual domain, aspects of culture including language, ceremony and ways of transmitting knowledge are explored (Landon, 2012). Spirituality is often absent from public school provisions, while Indigenous spirituality may be quite strong in some communities (Landon, 2012).

Research indicated that Indigenous students experience cultural discontinuity in Western education systems because curricula and school organization is based on a foreign epistemology and set of values (Barnhardt & Kawagley, 2005; Fleet & Kitson, 2009; Hilberg & Tharp, 2002; Pijl-Zieber & Hagen, 2011; St. Clair, 2002). The cultural disconnect that students experience has also been cited as one of the causes of the disproportionately lower rates of Indigenous students' academic success (Canadian Education Statistics Council, 2003; Starnes, 2006).

Indigenous epistemology is said to be commonly rooted in spirituality, holism, relationships/relatedness, balance and reciprocity with no discernible end point, but is rather a life-long process (Bastien, 2004; Battiste & Henderson, 2009). In contrast, Western epistemology has traditionally been rooted in rationalism, the objectification of knowledge and has been conducted in a linear, often impersonal and artificial setting such as the "lecture hall." In particular, the dominant paradigm for education within science disciplines has emerged from objective hierarchical thinking processes (Hatcher, 2012). By comparison, the structure of Indigenous ways of knowing are deeply rooted in spiritualism and focus upon knowledge of unseen powers in the ecosystem, the

interconnectedness of all things and the knowledge that perceptions of reality are based in linguistic structures and are inherently based in moral and ethical imperatives (Battiste & Henderson, 2009).

Conclusion

From this review of the literature, we can begin to understand the gap in persistence and success rate for Indigenous and non-Indigenous students. Indigenous students enter higher education with different values systems, approaches to learning and logistical challenges. They also enter with diverse educational experiences and relationships to education based on Canada's colonial past. Finally, many Indigenous students also enter higher education at an older age than traditional undergraduate students. For these three reasons, they do not fit easily into the classical persistence theories presented earlier in this review (Pidgeon, 2009). This is not to say that all Indigenous students approach higher education in the same way, nor that non-Indigenous students do not face some of the same challenges. Financial supports, program additions and curricular revisions appear not to be enough because they only superficially address the physical and mental needs of the students and have done little to advance an alternative cultural perspective.

The research reviewed also suggests fundamental change is needed to more deeply address the spiritual, emotional, mental and physical needs of Indigenous students in post-secondary education (Fleet & Kitson, 2009; Kanu, 2011; Kitchen, et al., 2010). One model that has begun to grain traction in the discipline of science in higher education is Two-Eyed Seeing (Bartlett, Marshall & Marshall, 2007).

Two-Eyed Seeing

Through the lens of the medicine wheel, the conflicts for Indigenous students in mainstream educational provisions become apparent. Bourdieu (1986) articulated how the

colonial system of higher education places Indigenous students at a disadvantage because their cultural capital is seated in values different from the dominant Western paradigm currently in place in Canadian institutions. Giroux (2011) suggested the way forward would be to critically examine educational positions and revise them with the principles of social justice and equality at the forefront. Mi'kmaw Elders Albert and Murdena Marshall have put forward a model for science education that draws on the wisdom of both worlds (Martin, 2012). In development of the Two-Eyed Seeing Model, Indigenous and non-Indigenous students were asked to bring together their different ways of knowing so that they could leave the world a better place for the future (Bartlett, Marshall, & Marshall, 2012). The Elders explained that seen with one eye, the world was viewed through Western scientific understandings, while through the other it was evaluated through Indigenous ways of knowing. Albert Marshall (in Bartlett, Marshall, & Marshall, 2012) suggested that we can all learn to "see through both eyes" and one eye should never be subsumed or dominated by the other. With both eyes used together, a new way of viewing the word has been created: one that respects the differences that each "eye" can offer.

Adult Learners in Higher Education

Many Indigenous students return to school after a gap in education (ACCC, 2010). Therefore, it may be equally important to consider the characteristics of adult learners as it is the characteristics of Indigenous learners. Much of the theory developed around adult learning or andragogy comes from the organizational development field, where professional development or training for specific tasks in an employee's current work place was needed (Kenner & Wienerman, 2011). Knowles (1974) identified four principles that characterize adult learners: they are self-directed and resist arbitrarily

imposed information, they have an extensive depth of experience that defines their identity, they are eager to participate in learning and they are task motivated. Knowles (1984) observed that adult learners return to school to attain a specific goal and the primary motivational drive tends to be internal. Kenner and Weinerman (2011) suggested that adult learners have likely established a life context that determined their learning and are more likely to desire a greater sense of cooperation between the student and teacher as they proceed through their educational process. As such, adult learners also desired a student-teacher relationship that is founded in a spirit of equality where students feel both respected and accepted (Knowles, 1984). Kassworm (2003) qualified adult learners' beliefs about knowledge creation and relationships into three critical points: adult learners 1) consider the classroom setting the defining context for learning, 2) adult learners connected knowledge to their lives outside of school and 3) the adult learners' perception of the instructor impacts their learning.

Institutional Response to Diversity in Higher Education

Transitions programs are one of many strategies higher educational institutions have employed to increase participation for under-represented groups. According to Valentine, Hirscy, Bremer, Novillo, Castellano and Banister (2009), transitions programs can be categorized into three typographies: 1) general academic preparation, 2) supportive, in that they include financial and social supports alongside academic supports and 3) discipline specific, meaning both content and supports feed into a specific career pathway. All of the above-listed typologies of programs may include revisions to the entrance requirements for the target student population alongside pre-university orientation workshops, curricular add-ons that introduce cultural content, preparatory

credit courses, mentoring, tutoring, academic advisement, financial and personal counselling, housing and childcare assistance.

Empirical evidence concerning the success of transition program strategies is difficult to find in the scholarly literature. While there have been many attempts to improve the relevance of education at a post-secondary level for Indigenous students, as observed earlier these efforts are generally limited to the institutional provision of "add-ons" and do not address the fundamental differences between the epistemologies of Western and Indigenous world views (Walberg, 2008). According to the ACCC report (2010), however, these strategies appeared to make some difference in completion rates. Nonetheless, careful thought needs to be given to the structure of information and orientation of new students (Edward, 2003).

The intervention strategies that have shown the most promise for positively affecting Indigenous student participation and completion rates at mainstream institutions are multi-faceted and include the following: reserved seats to increase access, preparation programs, bridging or access programs, transition programs, Indigenous-specific student services, enhanced levels of tutoring and skill support and culturally appropriate counselling and mentoring programs (ACCC, 2010; Smith & Gottheil, 2011; Swail, Redd, & Perna, 2003). Many of these programs have been designed around perceived student rather than university deficits. Critics of these programs claim universities design and offer these programs as a form of benevolent charity, instead of examining the factors leading to persistence and how this might impact the larger university community (Munro, 2012).

Literature on Access and Transition programming is difficult to find, and there have been even fewer sustainable education initiatives in Canada that address Indigenous

students and careers in nursing specifically (Kulig, Lamb, Solowoniuk, Weaselfat, Shade, Healey, White, & Crowshoe-Hirsch, 2010). Key objectives shared by two of the longest serving programs in Canada are offered by the University of Saskatchewan and the University of Manitoba and include the practices listed above, but tailored for indoctrination into the nursing profession (Anonson et al., 2008). These practices include promotion of nursing careers, close monitoring of academic performance, counselling and advising supports, scholarship and financial aid assistance, the inclusion of culturally relevant content and collaboration with Indigenous elders for support and advice (Anonson et al., 2008). A newer program offered at the University of Lethbridge is very similar to the structure of the program investigated in this case study and hinges on five critical elements: a pre-nursing year, incorporation of Elders, mentorship, social networking and tutoring, as well as designated staffing (Kulig et al., 2010). However, success rates have not yet been made available to the public.

In a meta-analysis of over 100 studies evaluating the effectiveness of transitions programming, Valentine et al. (2009) were able to determine that transition programs have demonstrated improvement in retention, but not why, nor what elements of transitions programing were responsible for increased persistence. In short, a review of literature in the area of institutional response tells us that the primary response of higher education to diversity is to develop specialized programming in specific career pathways; there are important components to these programs, founded on over 30 years of experience in development, but there is little empirical evidence to justify or support these models.

The Role of Community

The importance of community reoccurs in the literature from three different perspectives: persistence, Indigenous education and programming development (Di Ramio & Wolverton, 2006; Kelsey, Linder, & Dooley, 2002; Rovai, 2002a; Shea, 2006; Thompson & MacDonald, 2005; Tu & McIssac, 2002). Therefore, it is important to clarify the descriptions of community. There is no accepted dominant theory with regard to describing successful online communities (Kim, Yong-Park, & Jin, 2008). What follows is a review of commonly referenced theoretical frameworks for describing communities of learners, the aim being to outline their potential and inadequacies for predicting Indigenous students' persistence in the context of this research. The theories evaluated were:

1. Communities of Inquiry (Garrison, Anderson, & Archer, 2000).
2. Communities of Practice (Wenger, 1998).
3. Activity Theory (Engeström, Punamäki-Gitai, & Miettinen, 1999).

Communities of Inquiry

The Communities of Inquiry (CoI) Model developed by Garrison et al. (2000) has been used extensively for the analysis of online discussion forums. It has been evaluated both quantitatively and qualitatively for its ability to explain and prescribe effective online learning design (Arbough, Cleaveland-Innes, Diaz, Garrison, Ice, Ricardson, & Swan, 2008). The model was premised on social constructivist theory and the CoI includes both teachers and students. Learning occurs within the community when three key aspects are maintained: cognitive presence, teaching presence and social presence (Anderson, Rourke, Garrison, & Archer, 2001). Cognitive presence was defined as the extent to which learners are able to construct meaning through reflection and discussion.

Social presence was described as the degree to which learners feel socially and emotionally connected with others in the online community. Teaching presence was defined as the design, facilitation and direction of learning experiences leading to educationally valid outcomes (Garrison et al., 2000).

Studies using the CoI framework have examined the correlation between the three aspects of presence and their contribution to student success as defined by both learning outcomes and/or students perceptions (Joo, Lim, & Kim, 2011; Shea & Bidjerano, 2012). Garrison (2007) contended that, while interactions between participants are necessary, in e-learning environments interactions themselves are not sufficient to ensure effective online learning. Specifically, the ability of an instructor to effectively facilitate discussion and provide direct instruction appears to be crucial in moving students' cognitive presence beyond superficial involvement in the community to commitment (Garrison, 2007). The framework has been used to develop student evaluations of learning contexts (Arbough et al., 2008) as well as for social network analysis (De Laat, 2006).

Communities of Practice

Communities of Practice (CoPs), according to du Plessis (2008), are one of the most important mechanisms for fostering learning in today's society. Wenger's (1998) CoP framework, like the CoI model, was founded on constructivist theory. However, there is one critical difference that distinguishes these two frameworks. While CoI attempts to outline how a community can be built through an examination of formal teaching events, CoP claims a community cannot be built; community emerges on its own through the shared needs and contributions of the community members.

Learning in a CoP is categorized into four aspects in an attempt to describe the factors impacting community formation: learning as community, learning as identity, learning as

meaning and learning as practice (Wenger, 1998). Wenger's theory attempts to describe the ways in which communities of practice are formed and developed, the pathways of belonging, valid participation, and how community boundaries are demarcated (Campbell, Verenikina, & Herrington, 2009). These descriptions are useful when observing interactions within an online learning provision but are not as easily measured as the CoI aspects because the CoP aspects are more broadly defined (Conole, Galley, & Culver, 2011). CoP also becomes problematic when defining community boundaries in a potentially large online community with loose connections, because CoP was developed to describe small local face-to-face communities. As well, CoP is based on the assumption that the group is closely knit with shared common ground, which may not be the case in an online community (Takhteyev, 2009).

Participant involvement was considered to be a critical feature of CoP formation (Baek, 2009; Goos & Bennison, 2008). Unlike the other frameworks discussed, the individual's learning process in the CoP is absent (Campbell et al., 2009). This constitutes one of the major criticisms of the CoP framework (Edwards, 2005; Fuller, Hodkinson, Hodkinson, & Unwin, 2005). A second criticism stems from the accusation of definitional plasticity, which has caused the meaning of CoP to change over time. This criticism is slightly ironic given that the CoP framework makes the assumption that social practice is stable (Kanes & Lerman, 2008).

Activity Theory

Activity theory (AT) provides yet another descriptive framework for considering online interactions. The central premise of AT claims that activities are a result of competing forces. Through analysis of this competition we are more able to accurately interpret the activities within a community (Conole et. al., 2011). Therefore, AT can

provide a useful analytic tool for characterizing the design of an online community by evaluating the complexity of community activities through context (Engeström, 1987).

AT is commonly represented as a triangle diagram, illustrating an activity system consisting of a subject (the individual or group of individuals whose point of view is central to the community), an object (the thing that is acted upon), as well as the components of the community (tools, rules, assigned duties) that impact the subject and the object. Activity systems are constrained by formal (external) and informal (internal) rules or pressures.

Where these two theories differ is with regard to the environment. AT also considers more formally the technical (physical) restraints placed on interactions (Barab, Schatz, & Scheckler, 2009). Enablers and constraints can be identified by focusing on questions such as where the activity is occurring and how the environment and individuals are influencing it by compartmentalizing the activity system (Conole & Culver, 2010).

Garrison (2001) critiqued AT because of its strict compartmentalization and reduction of activity to transactional processing, which in turn reduces the complexity of the system being observed to independent transactions. While both CoI and CoP seek to examine whole community through differing lenses, AT examines the minute interactions from which the community is derived. While critics such as Garrison (2001) and Barab et al. (2009) would not wish to adopt this framework as a complete vision for describing an online community, they acknowledge the usefulness of a detailed analysis of transactions in diagnosing where improvements can be made in community design.

Conclusion

Based on social constructivism, CoI and CoP attempted to describe community actions in terms of the impact of power and intervention and the communities' definition of

inclusion/exclusion and participation respectively. While CoP initially appeared to be the most relevant framework for examining Indigenous students' persistence in transition programming, because it looks specifically at the evolution of community membership and boundaries, it is limited in practice because it is unable to provide a lens to examine the specific classroom practices. Activity theory provided this missing feature by focusing on actions and interactions of community members, but failed to provide a rich description of the complexity of community interactions due to its reductionist approach. Therefore, CoI, although also imperfect, provided the best theoretical framework as it seemed to fall somewhere in between CoP's holism and AT's compartmentalization of community formation and activities and provided a useful framework for describing interactions as they occurred online.

Technology Changes Opportunities

The New Media Consortium (NMC) Horizon Report: 2014 identified the adoption of hybrid learning as part of traditional higher education learning spaces as one of the two most important trends that will impact education over the next two years (Johnson, Becker, Estrada & Freeman, 2014). Hybrid learning, defined as the use of technology-based instructional methods (synchronous or asynchronous) with traditional face-to-face instruction, aimed give students more control over their learning as well as increase cognitive engagement (Allan & Seaman, 2006). Although the technologies and approaches may be the same, hybrid learning is different from (but often confused with) blended learning. By definition, blended learning required the reduction of face-to-face time in course delivery models and usually refers to the technological component as being web-based/online; hybrid learning does not (Allan, Seaman, & Garrett, 2007).

Advantages of Hybrid Learning in Course Delivery

Blended learning has the potential to increase participation and engagement in post-secondary education beyond levels that can be achieved either by traditional face-to-face classrooms or purely online instruction (Garrison, 2011; Means, Toyama, Murphy, Bakia, & Jones, 2009; Orhan, 2008). Substantial literature exists on blended learning strategies used to mitigate the perceived weaknesses of completely online courses (Harris, Connolly, & Feeney, 2009; Rose & Ray, 2011). However, more research needs to be conducted on methods for achieving an appropriate balance or "blend" of online components and more traditional elements (Garrison, 2011). Multiple studies have indicated students have a marked preference for hybrid/blended learning over both a fully online or traditional face-to-face instruction (Rodriguez & Anicete, 2010). Studies examining student success with regard to completion and academic achievement also indicated that hybrid/blended methodologies offer improved success rates (Donnelly, 2010; Woltering, Herrier, Spitzer, & Spreckelsen, 2009;). Alternatively, if success is examined strictly from a retention perspective (numbers in, numbers out), the research indicated that, regardless of learner characteristics, purely online courses have on average withdrawal/incompletion rate of 10–15% higher than traditional face-to-face classes (Jaggars, 2011). Studies also suggest the difference in retention rates can be mitigated with the introduction of hybrid learning (Means et al., 2009).

Gerber, Grund and Grote (2008) suggested that the real benefit to blended learning is the provision of learning in context rather than an artificial setting. Blended learning also makes it possible for the instructor to transfer control of learning to the students who can apply their own methods for mastering the material rather than rely solely on the instructor's approach (Rose & Ray, 2011). Personalizing the learning experience, which

is more inherently possible in the online components, helps reduce disengagement and instrumentalism among students (Holley & Dobson, 2008). Ayala (2009) stated that blended learning facilitates self-directed learning, while still affording opportunities for teacher intervention and monitoring face-to-face as needed. Blended-learning is thought to increase community and student satisfaction among learners by extending the reach of the course through discussion forums and other collaborative media where conversations need not end because the course or the instructional hour has ended (Lim & Yoon, 2008; Rose & Ray, 2011; Rovai & Jordan, 2004). Alternatively, the reach of a course can be extended by providing opportunities for students wanting more interaction or a more personalized learning experience to share resources they have found or created with classmates (Motteram & Sharma, 2009). Finally, classrooms can be structured to allow instructors to concentrate on individual student issues rather than presenting general content (Orhan, 2008). In short, blended learning has the potential to offer just-in-time assistance to students, while minimizing the potential stigma of the "transition class" because students are able to tailor their learning to their needs and remain anonymous.

Hybrid Learning Contributes to Community

From the early 1990s to the present, the practice of cohort-based learning has been on the rise in educational organizations (Rausch & Crawford, 2012). Cohort learning can be defined as a learning strategy where a group of students who proceed through a program take all of their courses in a sequential manner (Reynolds & Hebert, 1995). Alternatively, cohort learning may be defined by its support for relationships, that is, as communities that allow students a safe space as they transition from one environment to another (Knowles, 1970). This latter definition depends on the power of interpersonal relationships to enhance the learning process and provide additional support to cohort

members (Nimmer, 2009; Saltiel & Russo, 2001; Seifert & Mandzuk, 2006). Robert Kegan (1994) presented a description of effective cohorts for adults learners based on three factors: he cohort's ability to 1) hold well or meet a person's needs while providing a stable community for the foreseeable future, 2) let go or assist students in growing beyond their existing perceptions and 3) to stick around by proving continuity and stability so that relationships can be reconstructed as the cohort member grows.

There is evidence that e-learning can support cohort development (Coole & Watts, 2009). Nimmer (2009) extended the argument to suggest that cohort members may feel uncomfortable in either strictly online environments or environments that are strictly face-to-face. In a repetition of results presented earlier, Nimmer (2009) suggested the hybrid module is valuable for community development because it allows students some of the anonymity associated with online without the isolation of a purely online experience.

Hybrid Learning Supports Face-to-Face Instruction

Khan Academy has produced a large number of videos to support the learning of cognitively challenging tasks in mathematics and science. The use of videos has been proposed in a specific mode of hybrid learning known as the flipped classroom. In the flipped classroom content acquisition or familiarization is first achieved through online activities such as videos and simulations and students return to class to discuss or apply these new concepts in face-to- face sessions (Flipped Learning Network, 2014). The addition of videos or podcasts is a relatively low-cost addition to higher education courses, making it easy to implement (Seyedmonir, Barry, & Seyedmonir, 2014). The literature examining flipped classrooms suggested students were better able to answer questions regarding application of content knowledge. Further, students are more satisfied with the learning experience in general with the addition of flipped classroom resources

(Flipped Learning Network, 2014; Springen, 2013). Nonetheless, empirical evidence is limited and findings have been mixed; some researchers have reported learning gains (Herreid, Schiller, Herreid, & Wright, 2014) while others, reverting back to the "no significant difference debate" of the 90s, claimed that the flipped model offered no benefit to learning (Straumsheim, 2013). While the reviewed research indicated measures of success, little information could be found that identified specific factors within the flipped classroom model that lead to greater learning gains or persistence for students.

The Flipped Learning Network (FLN) recently released a document outlining the "four pillars of F-L-I-P" as a guide to effective flipped learning design. F represented flexibility of the environment, which allows students to choose where and when to learn. L represented learning culture, where students actively engage in their own knowledge construction (FLN, 2014). I represented the intentional content, where instructors carefully select content to stimulate engagement and growth in the discipline, and P was the professional educator who uses the class time to observe students and provide meaningful feedback.

Hybrid Learning with Non-Traditional Student Populations

Adult learners and other non-tradition students are often tempted or encouraged to enrol in online courses because of the perception that this type of delivery model will offer greater flexibility and access (Allan, Seaman, & Garrett, 2010). Hughes (2007) indicated improved retention of non-traditional students is possible through the application of hybrid learning; this author was also cautious, stating this model requires substantial resources to be successful, including time from highly skilled teaching staff. Competing life roles for non-traditional students and reading and writing needs for at-risk

students suggest that performance may be better if programs are started using face-to-face courses (van Droon & van Droon, 2014).

Heaton-Shrestha, May and Burke (2009) were critical of hybrid learning for non-traditional students and have suggested there is little evidence to support the claims that hybrid learning may be personalized. They contended that hybrid learning reinforced inequality within higher education by disadvantaging non-traditional students. This is both disputed and confirmed by the work of McAuley and Walton (2011), who suggested that it is the colonial aspect of the LMS platform that causes non-traditional students to be resistant to participation, and that students can share ideas more effectively when non-western knowledge systems are incorporated through more flexible platforms.

Other critics of e-learning have suggested that barriers to participation such as financial or technical factors may be underestimated (Bennett & Marsh, 2003; Johnson, MacDonald, & Brabazon, 2008; Sims, 2005). Although there is still much work to be done in this area, a few case studies also suggested that hybrid/blended courses can be effective alternatives for non-traditional students, as these barriers may not be insurmountable when considered carefully (McAuley & Walton, 2011; Twigg, 2003).

Conclusion

This review of the scholarly research indicated that a hybrid/blended learning model has advantages over face-to-face or strictly online learning environments. This research also cautioned that any e-learning environment should reflect student needs and their unique learning context. With regard to Indigenous students and persistence, a ubiquitous approach to program design that considers the whole student is needed. At the same time transparent structure is clearly indicated to facilitate trust building between the student and institution. With regard to design, highly structured LMS-based blended courses

were criticized for their rigidity, while completely open courses were critiqued for their expansive freedom. Online community development appeared to be critical regardless of the structural approach taken. However, there was no clear evidence for the level of structure needed to foster persistence with mainstream students nor the impact this structure has on marginalized students.

Summary

From the review of the literature, it is evident that determining the factors impacting students' persistence is multi-faceted and highly contextual for both individuals and institutions. It is also clear that blended learning has the potential to increase participation and engagement in higher education when planned with careful scaffolding.

It is also apparent that there exists a gap in knowledge concerning how transition programs can use blended learning to support students and how this could potentially impact Indigenous student persistence, a group of students whose decision to persist is often influenced by physical access to classes, external demands on time/resources and feelings of isolation. Further, from the review it became evident that technology can play a role in providing an online space and place to support students to bridge the aforementioned disconnects.

Through development of an online community environment using a blended learning approach within transition programs, institutions may provide greater opportunities for students to develop the connections that the scholarly literature indicated are fundamental to persistence. Further, through this approach, institutions can also re-define presence and participation when factors mitigating face-to-face or real time presence are considered

In light of the literature review, the following three factors have emerged and need to be explored in this research: 1) the attributes of design and structure of a hybrid learning

approach for a transitions program that would lead to Indigenous students' persistence; 2) the factors that influence community development in this context; and 3) the influencing factors within community that impact persistence.

CHAPTER THREE: RESEARCH DESIGN

Introduction

The study investigated student persistence within Access programming at a western Canadian university (referred to as the University throughout the chapter). Specifically, the study examined the degree to which program organization, course design and community integration impacted students' persistence decision-making processes in a Pre-Nursing Transition (PNT) program. A single embedded case study approach was developed based on an examination of students' experiences in two PNT-required biology courses. Data were collected over the duration of one academic year, September, 2013, to May, 2014. The case study focused primarily on data collected about course and program experience through interviews with students. Two key employees working in the PNT program were also interviewed.

This chapter outlines the methodological components of the study, the rationale, data collection procedures and analysis strategies. Evidence is provided to clarify the criteria for participant selection, integrity of data, ethical considerations and the boundaries of the study.

Research Design and Methodology Rationale

Case Study

Stake (2010, p. 13) identified qualitative research as "the science of the particular," meaning you can only respond to a problem by looking at the context of that specific problem and the sequence of events that have led up to it. He argued that even the reaction of a Swiss clock (presumably a simple predictable mechanism) could not be predicted when used out of context, for example, at sea instead of on land (Stake, 2010). Although this is an oversimplification of the importance of context to understanding

causality, this example serves to illustrate the importance of defining the context or case when attempting to describe complex human behaviour. It is the significance of the context that compelled the selection of case study for this research.

Although much statistical data outlining enrollment patterns, success and attrition rates existed in the administrative offices of Access programming at the University, these numbers could not be explained by comparative data from parallel programs within the province nor by reference to the literature in the field of transitions/access program design. Administrative staff and faculty have formed opinions and made "educated guesses" in attempts to explain the causes for attrition rates observed at the University, but a more empirical evidence base was needed. With the future of Access programing in jeopardy due to austerity measures within the University, accompanied by low success rates for completion of Access programs, a greater understanding of the factors impacting attrition rates as well as evidencing student/program successes was critical to the future of Access programming.

With this in mind, the investigation lent itself to an inductive approach, which Merriam (1998) outlined as a mode of inquiry that allows the researcher to gain insight on the multiple realities that are constructed by the individuals involved. Merriam (1998, p.10) also suggested that the inductive approach is best examined through an "in-depth [examination] of the situation and its meaning for those involved," which has become the accepted definition of case study (Merriam, 1998).

Case studies, in contrast with other types of qualitative research such as phenomenology, ethnography or grounded theory, are "intensive descriptions and analyses of a single unit or bounded system... such as an individual program, event, group, intervention or community" (Merriam, 1998, p. 19). The research questions for

this inquiry concerned themselves with exploring individuals' processes, the continuing decisions to persist rather than a specific outcome of graduation or attrition. With the primary focus of the research on an examination of process rather than outcome, both phenomenology and grounded theory were counter-indicated. Phenomenology is concerned with an examination of a specific phenomenon or intervention; grounded theory seeks to test substantive theory regarding specific practices. Both are methodologies focusing on outcomes rather than individual processes (Merriam, 1998).

Ethnography and case study are terms often mistakenly used interchangeably; the two methodologies are distinguishable based on the approach to research question design, however. The methodological approach for this research lent itself to an examination by case study over ethnography because the research questions inquired outwardly, seeking to describe the nature of participants' experience with the institution (typical of case study), rather than inwardly, that is, examining the knowledge and culture of the participants (the definition of ethnography). It is important to note for the purpose of this research, as in most, that the two types of enquiries (outward and inward) cannot be entirely separated.

It was neither financially nor logistically possible to attempt to examine all Access programming at the same time at the University. It also did not make sense to attempt to examine all of the programs together because each program offering is unique in design, content and student participants. A mass study would have led to generalizations about all programming, which may not have been reflective of the individual program offerings' successes and challenges. Therefore, a single case design within one of the program offerings was selected. The Pre-Nursing Transitions (PNT) program was chosen because of the unique results for persistence (or rather lack thereof) observed. PNT was also

undergoing a period of evaluation and re-structuring and administration staff within Access at the University felt the provision of more empirical evidence would assist in the process of evaluation.

The case was unique when considered against the literature available. Attrition rates were reported to be higher in PNT than in parallel Indigenous nursing preparation programs cited in literature internationally or gleaned from in informal conversations with program coordinators nationally. The case was also a good representative sample internally, as its design and structure parallels activities and challenges found in the three other Access programs offered at the University, each of which experiences large intakes, but with only a minimum number of students entering into their desired Faculty programs. As such the selection of the PNT program for the case provides both the opportunity to analyze theory (act as a critical case), demonstrate a unique case (within the province) and represent a sample case (within Access programming). These three factors were all indicators of the suitability of a single case design and its applicability to the larger study of persistence (Yin, 2009).

The purpose of this particular research was to provide an in-depth analysis of a particular context, the PNT program, within the larger context of Access programming at the University. The context in this case was difficult to bound through quantitative measurements such as analyzing grades, acceptance rates or other discretely measurable factors against attendance rates or demographic factors, which could potentially clarify some correlations but not clarify causality. A purely quantitative approach would also have been considered to have been extremely disrespectful to the participant population because of the history of misuse and abuse of Indigenous peoples and knowledge in the post-positive Eurocentric research tradition.

One of the ways to support Indigenous ways of knowing and sharing knowledge and counteract the heinous history and reputation of Eurocentric research was to apply more holistic qualitative approaches that were in better alignment with the ethical and community dynamics of research with Indigenous peoples (Denzin, Lincoln, & Smith, 2008; Kovach, 2009; Smith, 1999). This was another advantage of the holistic approach of case study.

One methodological approach often associated with Indigenous methodologies is narrative study (Barton, 2004; Kovach, 2009; Lowan-Trudeau, 2012). Narrative inquiry would have allowed for the telling of participants' stories in their own voices. However, given the nature of the questions, the study of persistence (which is a phenomenon that occurs over time) and the level of sustained engagement that would be required of the participants, this method was determined to be too time consuming for participants.

The case study method was examined in terms of the efficacy of this approach for eliciting answers to the research questions. Merriam (1998) described bounding a case study by its approach to questions as the heuristic quality of the case study. Applying the definitions of case types outlined by Yin (2009, p.28), an exploratory case study was deemed to be the most suitable approach for this research. The questions to be posed aimed to answer the "what" type of questions, exploring what conditions or factors impact the decision to persist.

The exploratory case study approach allowed the researcher to look at this phenomenon holistically in the context of students' every day decision-making processes and identify causalities rather than to look for confirmation of predictions. Furthermore, the exploratory case study approach provided a research methodology that was better suited to Indigenous ways of knowing. Lowan-Trudeau (2012) paralleled Indigenous

methodologies with Western interpretive approaches and identified the similarity of the two, with one major exception: the degree of centrality or acceptance of Indigenous knowledge systems and community protocols. Carjuzaa and Ruff (2010) explained how Indigenous ways of knowing do not reflect the traditional pattern of a Western positivist paradigm of knowledge acquisition but instead were highly contextual, spiritual and centred on personal and community growth.

Smith (1999) described the Indigenous research agenda as an attempt to decolonize, mobilize, heal and transform the lives of the participants, while Kovach (2009) explained that Indigenous research methodologies are also best situated in the qualitative landscape because they seek to understand through relationships and are, by nature, exploratory. Kirby, Greaves and Reid (2006) stated that researchers working with participants outside of their own cultural group must recognize the impact of culture on the type of knowledge they produce. Kirby et al. (2006) proposed vigilant considerations of the implications of practical choices, such as methodology, for the type of information being produced. Lowan-Trudeau (2012) referred to this critical refection on the position and role of the researcher as reflexivity. As long as the researcher is seeking to be heard by a public audience, she must interpret the world of the oppressed group and convert it into understandings that can be accepted by the dominant culture (Kirby, et al., 2006). Privilege and power cannot be discounted (Smith, 1999). Overall, research methodologies should be guided by the four Rs: respect, relevance, reciprocity and responsibility (Kirkness & Barnhardt, 1991).

The PNT program structure consisted of many synergistic components: cohorted courses, academic counselling, tutoring and tutorials and non-academic supports. The intention of the research, grounded in critical theory, was to deconstruct these structures

and understand the impact of these supports from the students' perspectives. An embedded case design was adopted to avoid "slippage" away from the research questions as may occur in a holistic case study design (Yin, 2009, p. 52). The subunits of the case were aligned with the research questions and were defined using the broad categories of: program and course design, community and persistence.

Research Questions

The following questions guided the inquiry:

1. What attributes of the design and structure of a hybrid learning course within Transitions programming impacted students in terms of persistence?
2. What factors influenced community development within a Transition program for Indigenous students?
3. What conditions did students identify as critical for persistence decisions?

Participants and Sampling

The participant group for the research consisted of the "first year" cohort group in the PNT program; the first year cohort was the group of students that officially entered PNT in September of 2013. However, given the nature of PNT enrolment and participation patterns the group also included students previously enrolled in PNT but still considered to be in first year academically due to the number of credits they had obtained. Faculty and staff identified by students as critical to persistence decisions were invited to participate in interviews during the final stages of data collection in order to triangulate data collected from students as well as enrich the description of the case.

In order to determine the courses that would be observed online as well as how the online modifications would be developed and implemented, it was important to locate an

instructor interested in using online tools in course design. Initially, purposive sampling guided by information from the administrative coordinator of Access programming was used to identify a potential instructor. Determining instructor participation more narrowly defined the sample within the cohort that would be contacted for participation. Purposive sampling in the initial stage also ensured the researcher was able to identify the group that was best situated to answer the research questions (Creswell, 2003). The instructor of the cohorted biology courses volunteered to participate. In the first term, the core biology course requirement was used as the host for design changes and quantitative data collection. In second term, all PNT students moved on to microbiology and physiology with this same instructor, and the physiology course was selected for observation. The physiology course was considered by both students and staff as the more challenging of the two biology offerings in the second term. The biology courses were identified by administrative staff as the key courses in the PNT program impacting success as students are not able to join the Nursing Faculty without having completed these courses. The biology courses were also called the "breaking point" for many students' success in PNT. For this reason, the biology courses were the focus of programmatic supports. In addition to the small class sizes determined by the cohort enrolment, the biology courses received additional instructional time in the form of tutorials. The bounding of the participant group to the biology courses narrowed the staff participant sample to those members working with students enrolled in these biology courses.

Within the delimited sample, participants were self-selected volunteers who identified themselves to the researcher through a face-to-face call for participation that took place during the cohort students' mandatory orientation week of classes. Conducting the call during a mandatory event ensured that all potential participants received the information

about the study, but additionally removed any perceived pressure that may have been associated with participation had the call been conducted in the participating biology class. As part of the call for participation, the researcher shared a short presentation with the students on the role of research in higher education and shared the background and rationale for the PNT program research project. Initially, seven students completed and returned participation forms. Upon contact for first interview, two students decided to withdraw from the study. A second call soliciting participation in a meeting prior to the first term biology class did not result in any more participant volunteers. The initial design for participant selection included a refinement process that encouraged better sample representation based on demographic factors identified during the first interview. However, with only four participants completing first interview all participants were retained and the selection process was not needed.

Methods of Data Collection

A combination of qualitative and quantitative data collection methods were used to identify and verify emerging patterns. Creswell (2003) defined the collection of data from multiple sources as triangulation and cited this process as an important procedure to ensure internal validity. Data collection was divided into three spheres of activity guided by the Community of Inquiry Model (Garrison, Anderson, & Archer, 2000): student-student interaction, student-teacher/institutional interaction, and student-content interaction. This structure informed the embedded design of the case as well as student persistence/integration frameworks as outlined in the analysis of literature. Three different types of data were collected: observations of online activities, participant created contact maps and individual interviews.

Observations of online activities. As outlined by Yin (1994), observations provide insight into interpersonal behaviour and motives. Using the recording and reporting tools (e.g., Desire2Learn (D2L) student participation reports) offered by the Learning Management System (LMS), the researcher recorded data on the frequency of access and types of items accessed. The researcher also intended to develop field notes related to students' discussions in the LMS discussion forums. However, these forums were un-used by the participants during the research period and therefore no qualitative data was obtained from observations of online activities.

Contact maps. Participants were asked create contact maps (See Appendix A for sample contact map form) designed to collect data on student interactions prior to interviews using the procedures outlined by Schreurs and De Laat (2012). The purpose of this recall instrument was to ask the students to examine their individual perspective on interactions/contacts over a period of time and identify the connections they relied on more frequently and for what purpose. This data collection method was designed to determine students' perceptions of who they were communicating with, how often and for what purpose. Contact maps worked in conjunction with the interviews to compare information from both data sources and identify any incongruence between the two. In two cases, the contact map was completed prior to the commencement of interviews, with the researcher present.

Individual interviews. Individual interviews were the most critical data source for the research. (See Appendix B for interview protocol). The student participants completed three semi-structured interviews. The purpose of these interviews was to provide targeted information directly related to the research questions and examine perceived causal inferences (e.g., reports of frustration or success with programming may or may not have

had direct impact on persistence decisions). Interviews between 20 to 80 minutes in length were conducted in three deliberately selected time periods. Although conventional in their approach the interviews were designed to allow participants to share relational information and personal narratives (Chilisa, 2012).

The first interview occurred during the first quarter of the academic year as students were becoming oriented to the University and program. The second interview occurred at the mid-point of the year (shortly before or after the December exam period). The final interview took place at the end of the second academic term after the deadline for application to the Nursing Faculty (April). All interviews were conducted by the researcher, audio recorded and transcribed verbatim. The initial interview was comparatively short (30 minutes) and collected predominantly background information. It also served as a baseline for definitions of community, success and persistence. The two follow-up interviews were generally longer, 60 to 80 minutes in length, and focused on questions related to program structure, community and persistence. The use of semi-structured interviews aligned with Kovach's (2009) suggestion that data collection methods should be based in open-ended structures to be flexible enough to accommodate oral traditions.

The instructor of the biology courses and the counselling staff who were identified by the students participated in a single interview each of approximately 60 minutes at the conclusion of the data collection period (March). The purpose of these interviews was to verify student observations and obtain the staff members' insights on emerging patterns concerning course/program design, persistence and community.

Data Analysis

The multi-method approach to data collection required multiple approaches to data analysis as determined by type of data. Therefore, the analytic strategy as defined by Yin (2009) included both qualitative and quantitative data.

In accordance with the precautions of Merriam (1998) and Miles and Huberman (1994), data collection and analysis were conducted in a cyclical manner to avoid the risk of generating overwhelming and unfocused data. At the conclusion of each interview period, data were coded and re-coded as information from new interviews was added. Quantitative data were also analyzed in this way. Finally, the initial analysis of contact maps was shared with student participants for further discussion and analysis.

Quantitative Data

Descriptive statistics. Although the original design of the study anticipated the use of more qualitative analytical methods to analyze online community usage, this data set was limited to simple descriptive statistical analysis due to the absence of student-student and student-teacher interactions online. Using student participant reports obtained from the LMS, frequency of access to each of the online course components was recorded. These data were compiled in a relative frequency chart to determine what portions of the online content of the course were used most often, as well as to compare how frequently students within the research sample logged on relative to one another.

Social network analysis. Students' recalled contacts, recorded through the use of contact maps, were analyzed and interpreted using Borgatti, Everett and Freeman's (2002) UCINET software. The software created a visual representation in the form of a sociogram of the students' perceived interconnections within the cohort. Based on frequency of contacts as outlined in the contact map, the relative distance of students'

connections was determined to be a factor of 1, 2 or 3. For example, if a student identified a contact as a weekly contact, this was recorded in the UCINET matrix as a distance of 1, while a monthly contact was a distance of 3. Distance was originally represented by the distance of the connection arrows on the sociogram, however, the closeness of these ties was not analyzed for fear of a false correlation between the frequency and the importance of the contact.

UCINET matrices allowed for the recording of reciprocal relationships. Students not participating in the research were not asked to complete contact maps, therefore no reciprocity or relationship could be recorded with students outside of the research sample. In the case of student participants who identified one another in contact maps, these reciprocities were recorded and were indicated in the resulting sociogram by double-headed arrows. The size of an individual's node on the contact map (i.e., the number of contacts) could be determined as well as the number of contacts in individual clique membership (i.e., the regular contacts). Cohesion of the group was determined by the density or overlap of individuals and cliques. Individual actor centrality was determined by measuring the size of the nodes against the number of overlaps. Given the small number of participants and the data collection method, the data were incorporated with caution, however.

Qualitative Data

The analytic technique used in the examination of qualitative data was considered a form of pattern matching as identified by Yin (2009) as explanation building. The procedure sought to generate hypotheses about the causation of participant persistence. The procedure consisted of three phases or episodes of data analysis (Stake, 2010):

1. Phase One: Developed the initial baseline definitions of online, community and persistence with individual participants from data collected in the first interview.
2. Phase Two: Revisited these definitions in action over the course of first term, and examined other details of the case.
3. Phase Three: Repeated this process with the additional information provided by the subsequent interviews and analyses.

Analysis in each phase was conducted by category construction and systematic analysis of coding for categories using an online coding tool called Saturate App (see Figure 1).

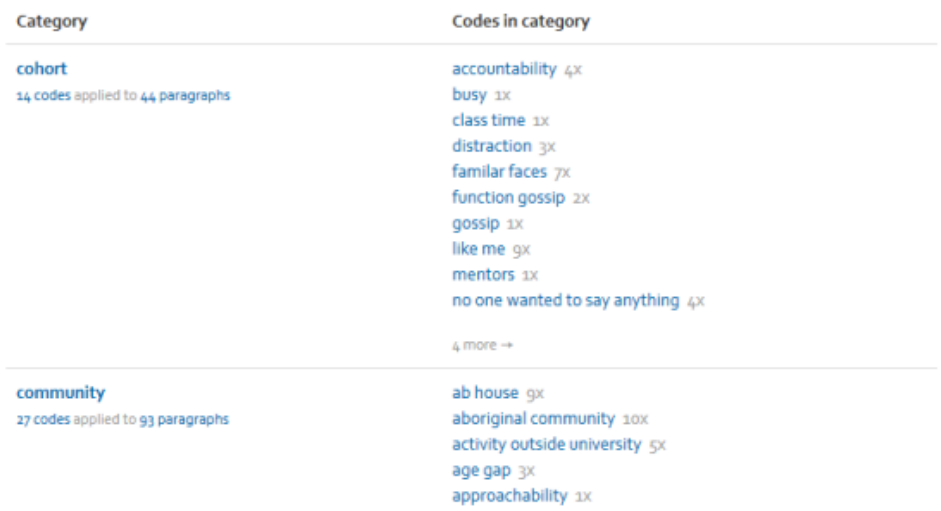


Figure 1. Sample of category development using Saturate App with in vivo codes listed within larger categories. In vivo codes were later replaced with specific thematic codes.

Inferences from the data were used to inform category construction and analysis in each subsequent phase in an effort to develop supportable theory about causation, patterns and relationships as outlined in Merriam (1998). Transcripts were manually coded using

in vivo coding. Saldana (2013) outlined in vivo coding as the best approach for coding for researchers with limited coding experience, for questions that are exploratory in nature and for researchers who desire to honour participants' voices. In vivo coding acted as an effective first-round coding technique for the researcher to attune herself to participant language, perspectives and world views (Saldana, 2013). Analytic memos (Saldana, 2013) were used to record and reflect on coding processes and choices (see Figure 2).

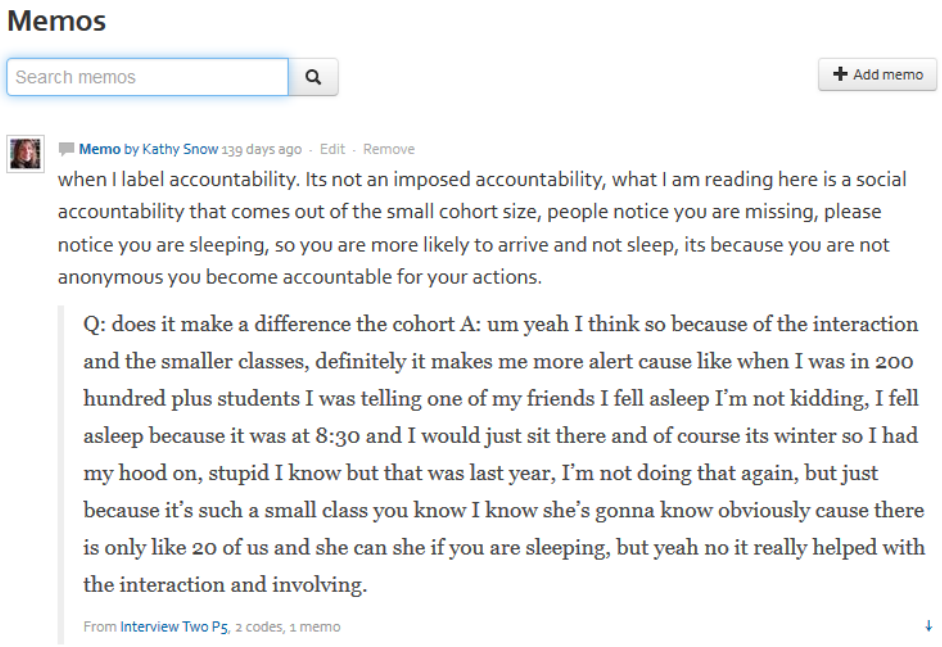


Figure 2. Sample of analytic memo notation in response to ambiguity around the use of the term "accountability".

Based on these analyses, generalizations were developed that led to greater understanding of the conditions for student persistence.

Integrity and Verification of Data

In all research there is concern for ensuring credible results. In particular, qualitative research, due to its criticized propensity for subjectivity, needs to carefully consider questions of data validity and integrity to increase rigour of the analysis.

Validity

Kovach (2009) suggested the use of a mixed method approach for analysis of data based in both Indigenous approaches to interpretation and Western approaches in order for findings to gain acceptance in the larger community of research while still reflecting the more holistic approach to interpretation of Indigenous methodologies. One method Kovach (2009) suggested would increase validity from an Indigenous perspective is to share stories, which allows readers to make their own interpretation of the validity of the interpretations. This was achieved through exploration of participants' biographies at the outset of the work, the weaving of quotations from participants throughout the results and analysis and the sharing of final persistence decisions made by students at the end of the work. Although somewhat disrupted by the thematic interpretation, the reader should have been able to follow the story of each individual and determine their own truths about the stories as shared by each individual participant.

In addition, Lowan-Trudeau (2012) suggested that validity is increased when approaching Indigenous research through researcher reflexivity and positioning. Both the position of the research and the knowledge the researcher has gained from the work have been shared within the first and final chapters of this dissertation, which allows readers to evaluate validity through the researcher's story also.

From the Western interpretive approach for achieving validity in qualitative research, Bloomberg and Volpe (2008) defined validity for qualitative research in terms of

credibility, which they described as “the degree to which the participants’ perceptions match up with the researchers’ portrayal of them” (p. 77). They list a number of recommendations for ensuring credibility/validity in a qualitative research study, including tactics such as prolonged engagement, peer debriefing, thick description and member checking. Due to time limitations for the completion of this project, prolonged engagement was not possible. However, the other three recommendations were followed:

1. Peer debriefing was conducted by asking a colleague to review interpretations for bias or faulty reasoning. This review was primarily fulfilled by the dissertation supervisor. However, as interpretations emerged, a small network of academic colleagues involved in distance education and transition programs were consulted prior to submission to the dissertation supervisor.
2. Member checking was conducted prior to sharing of any information to a larger audience by asking participants to confirm or revise content in which their ideas were presented using procedures outlined by Stake (1995). This method of obtaining credibility aligned well with Linda Tuhiwai Smith’s recommendations in *Decolonizing Methodologies* (1999), which highlighted the importance of genuine collaboration as an important practice in Indigenous communities.
3. Thick description was achieved by providing an extensive description of the case and context so that readers could determine how closely their context matched the research case, and whether or not these findings were transferable (Merriam, 1998).

Generalizability of the case was increased by the presentation of concrete examples. Examples from students' experiences in the students' own words allowed readers to directly examine primary data and determine similarities to their own contexts. The presentation of primary data for this purpose is outlined by Merriam (1998) as a suitable method for increasing generalizability.

Reliability

Referring to Merriam (1998), Stake (1995) and Yin (2009), the researcher used three techniques to ensure reliability. According to Stake (1995), reliability traditionally refers to the extent to which research findings can be replicated. Since in qualitative research there may be many interpretations of what was happening, there was no benchmark by which to take repeated measures and establish the reliability of data in the traditional sense. Therefore, reliability in qualitative research was better defined as consistency. Rather than emphasizing the importance of a third party in obtaining the same results, it was important the results obtained made sense or were consistent with the evidence provided (Stake, 1995). Lowan-Trudeau (2012) referred to this as positioning, and stated the importance of positioning both personally and theoretically. The two techniques employed to ensure reliability in this sense were:

1. An examination of the investigator's position in this research. The researcher provided an explanation of her assumptions and experience in the topic area that framed the study at the outset of the research (Chapter One) and in more detail at the end of this chapter. An explanation for the selection of the participants and the social context of the case groups and cohorts was also declared (Chapter Four). According to Merriam (1998),

declaration of both positions provides insight into any interpretation biases that may exist as a result of the researcher's position or research context.

2. An audit trail in the form of analytic memos (see Figure 3) recorded how the data were collated, explained how the data were collected and outlined decisions made throughout the study. An audit trail allowed readers to authenticate the accounts of the research findings in order to "follow the trail of the researcher" (Merriam, 1998, p. 207).

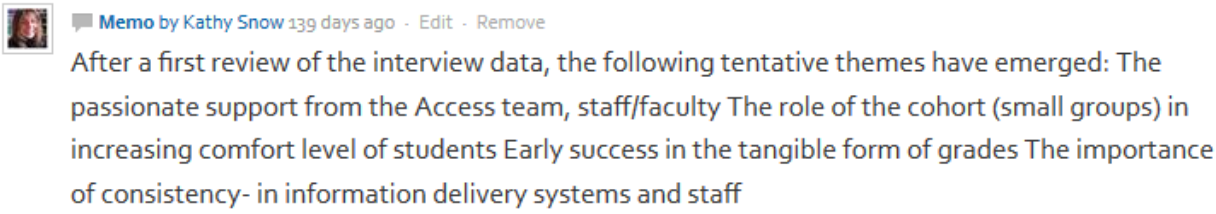


Figure 3. Sample audit trail memo recording patterns emerging from the first round of interview data collection.

Reliability was also increased through the nine-month data collection period. Chilisa (2012) suggested relationship building over an extended period of time allows participants the opportunity to share more personal intrepretions of events rather than perceived appropriate social responses. The researcher also shared her personal background as a student, mother and University employee in order to de-formalize the researcher-participant relationship and create a more equitable space for the sharing of stories.

Triangulation

Triangulation was achieved through the use of multiple methods of data collection and analysis including both Indigenous and Western paradigms. During interviews with participating students, the contact maps were compared to interview data by asking

students to reconfirm information presented if conflicting information was shared. Additionally, interview transcripts were examined after the interviews. Interview data were also compared to frequency counts of online access to confirm reported usage. Both reliability, as well as internal validity were strengthened through this methodological triangulation (Merriam, 1998). Methodological triangulation also provided the researcher with additional information that consequently lead to the development of a more complex interpretation of events than was available from a single data set (Stake, 1995).

Denzin, Lincoln and Smith (2008) also suggested that triangulation is achieved by viewing research results from the perspectives of body, mind and spirit, that is, from three separate positions. This was achieved by examining the research results from both the Western interpretive approach and a holistic examination of participants' stories through the medicine wheel as presented in Chapter Five.

Limitations and Delimitations

Limitations

Although the study was carefully designed, there were a number of limitations. The limitations of the research included the following:

1. This study had all the limitations associated with the use of a case study approach: time, oversimplification and limited scope (Yin, 1994).
2. One of the qualitative data collection methods, the use of "concept maps" (De Laat, Laly, Lipponon, & Simons, 2007), relied on participants' recall. This process may have diminished or exaggerated the impact of contacts because it was based on the most recent participants' perceptions rather than actual contact.

3. The limitations of interviewing and the interpretation of interview data, with the researcher as primary instrument for analysis, must be considered a limitation particularly given the researcher's experience with interview techniques (Yin, 1994).
4. Due to the small number of participants, results of this research may not extend to the entire cohort or beyond the University context.
5. The degree of participant experience with computer-mediated learning, access to technology as well as programmatic constraints on online course construction have proven to be limiting factors in online access.
6. The researcher's own biases on the topic and the desired outcomes may have limited the interpretation of results.
7. The use of a Eurocentric approach to research as opposed to methodologies grounded in Indigenous knowledge may have limited the type of responses participants felt they could give (Smith, 1999).

Delimitations

The delimitations of the study include the following:

1. Due to time, the research was restricted to the examination of a single case study, the first-year group of the Pre-Nursing Transitions (PNT) program at the University.
2. Data collection was confined to one academic year.
3. The study was delimited to a small sample size based on the PNT program intake capacity.

4. The study was delimited to persistence within the PNT program and did not examine where students go when they cease to persist nor directly explored their grounds for ceasing.

Addressing Researcher Bias

The researcher was the primary instrument for data collection and analysis. According to Merriam (1998), the research is always biased by nature of being human. As an adult student, it was important for the researcher to recognize how the issues that impacted the researcher's persistence may have also influenced her interpretation of the data. The researcher tried to minimize her perceptual effect through a standardized approach to the creation of codes and coding of the qualitative data. It was also important to recognize the same standardization of protocol questions needed to be viewed with a tolerance for ambiguity, as alternative lines of inquiry arose from ongoing data collection.

As a non-Indigenous person, the researcher came to this research with experiences of both racism and power from the position of other. The researcher needed to be sensitive to the context and the variables within the context with regard to the potential filtering definitions of community, persistence and success that accompany a Eurocentric world view, which may not have been reflective of participants' values.

Reflections on the Research Design

It is always easier to conduct a research project the second time because you have had an opportunity to learn from mistakes. With regard to this research, there were both successes and challenges to the implementation of the research based on the design. The semi-structured nature of the interviews as well as the construction of the interview questions led to in-depth responses from participants. The result is that the final analysis looks nothing like the informal predictions that guided the initial design. The directional

change should not be considered a problem but rather a success with regard to the ability of the interviews to allow students to present their views clearly. However, the lack of adoption of the online components may be more attributed to the failure of the research design than student preference. It became apparent that more time should have been dedicated to assisting the instructor and students navigate the technology. The researcher attempted to build in more time to assist the instructor with development, but it may have been a case of "too little too late", as the online components were not picked up.

It was also challenging to maintain consistent contact with the student participants, as they tended to drift in and out of contact based on a variety of factors. It was discovered that each student needed a different contact method, some preferring to be contacted via telephone, text message or email to make appointments for interviews. Attempting to make interview appointments far in advance did not prove successful. The researcher found the best strategy for establishing interviews was to contact the participants and arrange interviews to take place within a few days.

Finally, the use of contact maps proved very effective for visualising students' community relationships. It was sometimes difficult to obtain the contact map, however. The researcher allocated the first 20 minutes of each interview to the creation of contact maps when participants forgot to bring them to the interview.

Ethical Considerations

The study met both the University of Calgary's Conjoint Faculties Research Ethics Board (CFREB) and the host university's Research Ethics Board ethics review standards. The study has also met the requirements of the Tri-Council Policy Statement for research involving the First Nations, Inuit and Métis Peoples (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social

Sciences and Humanities Research Council of Canada, 2010). Letters of support from community members were provided as needed. In this case, research did not take place within a traditional Indigenous community, but rather at the request of the University Indigenous and Access Programming community. As such, letters of support were provided within the ethics application from the relevant department leaders. All participants were informed both verbally and in writing of their optional involvement in the study. Participants were asked to sign consent forms prior to data collections. Participants were clearly informed of their right to withdraw from the study at any time. Member checks were conducted with all participants for each relevant item.

The colonizing history of research with Canadian Indigenous populations was carefully considered with the aim of not perpetuating historical mistakes. The Kirkness and Barnhardt Four R model (1991) of ethical practice for work with Indigenous communities was considered at every phase of this research, from the inception of the project to the presentation of the results. As well, Smith's (1999) Indigenous research agenda was applied in consideration of individuals involved in the research. It was hoped that participation in the study would offer students an opportunity to share their voice and lead to a greater sense of personal empowerment. It was also hoped that sharing of the results with program administrators would lead to improved programming for future students.

Summary

Through an exploratory case study design that involved both quantitative and qualitative data collection, it was hoped that patterns of student response to program and course design and university integration as measured by perceptions of community involvement could be identified. The purpose of the structure of this design was to begin

to interpret the factors impacting persistence rates at the University as influenced by student-student, student-teacher and student-content interactions over the course of one year in the PNT program. Chapter Four presents the results of emergent patterns, while Chapter Five examines what the patterns mean for developers of the PNT program.

CHAPTER FOUR: RESEARCH FINDINGS

Introduction

Chapter Four outlines the results of data analysis. The data collection period spanned one academic year commencing in September, 2013, and ending April, 2014. The chapter begins with a detailed description of the program and the course design. This background information provides the context for the case study by outlining students' stories upon entry into the Pre-Nursing Transitions (PNT) program alongside the expectations for PNT completion. The chapter then shifts to an analysis of data and presents the findings organized into three subunits based around the research questions: course and program design, community development and experience, and persistence. Each of the subunits is discussed in detail through the presentation of the themes that emerged from the data. The chapter concludes with a summary of the critical conditions for persistence that emerged, which are discussed as action items in Chapter Five.

Program Description and Requirements

From the time of the inception of this research to its conclusion, the PNT program was re-structured and re-named. Previously part of a larger group of Health Care Transitions Programs, PNT was tailored for pre-nursing students. Some students in the current Pre-Nursing Transitions (PNT) program entered the program under a different name, different acceptance conditions, different support offerings, and with a different cohort group, depending on how long they were involved in Access programming at the University. For the year 2013 entrants, the PNT program was offered as a one-year program intended for Indigenous students preparing to enter the Faculty of Nursing. Students' Indigenous heritage status was defined by the University's self-declaration policy. According to the program coordinator, students were admitted on the merit of previous academic success

determined through an evaluation of their transcripts and an interview process that attempted to determine their academic readiness. Students may have been accepted into PNT, but asked to complete an additional year of "transitions programming" that slightly overlapped the PNT course offerings and extended time to completion from one year to two. The additional preparatory courses included university preparation math, science and literacy courses as needed. The students who participated in the research did not participate in the university preparation courses. In addition to the University-mandated orientation program, students were required to participate in a one-week orientation specific to Access and Transitions students prior to the commencement of the regular academic calendar. This 40-hour week-long intensive program provided students with instruction in study skills, an orientation to the university and its supports and an opportunity to meet instructors and classmates in a less formal environment.

Students admitted into the PNT program were expected to complete a minimum of 30 credit hours (10 three-semester hour courses) in the first year to meet the entry requirements of the Faculty of Nursing. The completion of these courses was an expectation for all applicants to the Faculty of Nursing. In other words, students from PNT must complete the same course load as all other pre-nursing students at the University. The first year requirements consisted of five specifically-named required courses: three from biology and two from nursing. For PNT participants, these courses were "cohorted" meaning enrolment in sections of these courses was capped at 30 students and limited to those students officially registered in the PNT program. The schedule for these cohorted courses was designed with the intent of balancing the challenge for the students throughout the year. One biology course and one nursing course were taken in the first semester. The two more challenging biology courses and

one nursing course were recommended for the second semester. Alongside these requirements, students were expected to enrol in an introduction to university course required by all students on campus in the first term. In the second term, students were encouraged to take their two elective non-cohorted science courses in addition to the cohort courses. Students were expected to complete the rest of their elective courses from the arts and social sciences faculties in a third term in the summer. The rationale behind this suggested schedule was to slowly increase participation in mainstream course sections over time in preparation for entry to nursing.

Participation in the cohort included mandatory attendance in group tutorial sessions for the biology courses. Upon entry students were assigned a counsellor and monthly meetings were also mandated. The counsellor acted as a point of contact outside the classroom experience where students could raise concerns about any aspect of their academic or personal life.

Group Participant Profile

To gain entry to the PNT program, all students must have provided evidence of Indigenous ancestry as outlined by the University's self-declaration policy, which applied more open standards of recognition than the Government of Canada's status Indian regulations. Being self-declared as Indigenous is where the similarity among the students ended. Indigenous students within the University population represented different First Nations bands, Inuit communities and Métis communities. Participants may have lived on reserves, in rural or remote areas or come from urban centres throughout Canada and the United States. Accordingly, the profile of participants within PNT was complex and diverse. The student participant group initially consisted of four female students (N=4) recruited from the required pre-nursing biology course sections offered as part of PNT.

The instructor of these biology pre-requisites and an academic counsellor, who also happens to be the program coordinator, also participated in the study.

The two courses selected for the case study were two of the six pre-requisite courses needed by all applicants, mainstream or otherwise, to gain entry into the Faculty of Nursing. These four students represent 10.5% of the total number of students officially registered in the pre-nursing (PNT) program (S. Burns, personal communication March 20, 2014). The student participants ranged in age from 19 to 40, dispersed over three age categories: two participants were between the ages of 18-24, one participant was between the ages of 25 to 35 and one participant was above the age of 35. All student participants declared the location of the University as their home city.

Student participants, with one exception, had all taken a break between high school and university entrance. They came to the PNT program through very different pathways in terms of personal experiences, educational experiences and financial obligations; however, they were unified in one single and unwavering goal. Each participating student identified obtaining a nursing degree as critical to the improvement of her life as well as the life of her family. In order to understand the depth of this dedication and the degree to which they represented the stories of the cohort members, the following section provides a brief background for each of the participants.

Carol

Carol entered the program after a long absence from education and an early high school departure. As a young woman, challenging situations at home forced her to become independent from her family. She established her own career by working her way through a variety of entry level jobs, until she was promoted to a level sufficient for her financial and intellectual needs. She married relatively young and claimed it was in part

to get away from home; she needed an escape or a re-start. Her new start came in the form of a major move out of her home province and the birth of her first child soon after.

Carol put the education of her spouse and the stability of her children before her own studies. She decided to return to school once her children reached school age as her previous career took her away from home frequently at irregular hours. Carol felt her children were reacting negatively to the demands her job made on her time. She returned to her home city to establish closer ties with her family and increase stability for her children. Carol's decision to return to school and enter the nursing program arose from research on potential careers and the assistance of a close immediate family member. She joined PNT with a friend, and the two of them were hopeful they would be able to complete the program together in one year. Carol completed her high school equivalency three years prior to application to the nursing cohort. Although both participants described thus far have entered PNT through equivalency training, only 10% of the current student population have entered PNT this way (S. Burns, personal communication, March 20, 2014).

Anne

Anne was also an exception to the above statistic. She too left home at an early age and returned to complete high school at a much later date. Anne qualified herself as a high achiever stating that: "In high school up until the end of my grade 10, my marks ranged from 85 to 95%. I want to see if I can maintain that here." She also worked a variety of jobs (many of them with salaries higher than she can expect to earn in her first year of nursing) before entering PNT as a mature student. She was married with a spouse who was very supportive of her decision to return to school. They did not have children. Anne prepared a detailed financial plan with her husband to be able to pay for the nursing

degree without, she hoped, having to access student loans. Anne, also considered a first-year student, was not starting on campus for the first time in September, 2013. While waiting to be accepted into the cohort at the September 2013 intake, she decided to try taking an elective course, to learn how to learn at a university level. This course of action is not unusual; approximately 50% of the PNT students enter the cohort program after independent starts in the mainstream programming at the university (S. Burns, personal communication, March 20, 2014).

Rebecca

Rebecca was in her second year at the University and her first year in PNT. She came to the University directly after high school graduation. Direct entry from high school is the pathway chosen by 50% of the cohort (S. Burns, personal communication, March 20, 2014). Rebecca discovered the cohort after university entry through information from a family member who had also planned to attend university but has since withdrawn. Rebecca claimed that her enrolment decision was very "last minute," having applied to and started the program within the same month. She lived at home and had extensive family support both emotionally and financially. Although she lived in the same city as the University, she lived in the suburbs and had a long commute.

Rebecca had arranged a school schedule that allowed her to work 2–3 days a week because she did not want to build up extensive student loans while attending university. She claimed to be very intimidated by the university and the large classroom settings. Rebecca identified her mother as one of the critical influences in her school participation decisions: "A lot of people claim to have negative influences from their family about school, but not me—my mom is always supportive." Rebecca, like several of the other participants, started university before entering the PNT program. Her first term was not

successful and she was very thankful for the second chance in the PNT program because she claimed the smaller classes and supports helped her to overcome the anxiety she faced in her first term. Rebecca left the research project in December, 2013, and only participated in the first interview; however, she remained in the cohort program.

Mary

Mary came into the cohort program after completing both high school and college programs successfully. She lived at home with her mother and siblings just outside the city and also had a long daily commute using public transportation. Mary not only paid for her own tuition but also contributed to the family income by paying rent and helping out financially as needed. She explained her choice not to enter university directly after high school by saying: "I wasn't ready to commit to university, a long program and a lot of money right out of high school... I knew I was interested in something in the medical field but I wasn't sure what that was."

Mary completed a shorter program offered by a local college but discovered quickly she wanted to work in a different health care profession. After graduation from her first program, Mary spent a year working and researching alternatives for her future education until she decided upon the nursing program at the University. Mary maintained her job on a part-time basis upon entering the University full-time through traditional channels. After a semester she moved into the PNT program. She had discovered PNT through a chance encounter with another student in the Eagle Lodge building: "I don't even know who the girl was but she started talking to me, she told me all about the program, how and where to apply—so I did and I was accepted."

Participant Definitions of Key Terms

The key terms that defined the scope of the research were based on the available scholarly literature, as outlined in Chapter Two. Academic definitions are not necessarily reflective of students' definitions. In defining the case, it was important to define the key terms from the participants' perspectives. The alignment of participant definitions with the literature is discussed in Chapter Five. For clarity in the analysis of data, the following participant-derived definitions are applied within this thesis:

Community

As outlined by the program coordinator, the rationale behind the use of cohorts was based in community. Facilitating the development of an interdependent community of learners was thought to positively impact persistence. Students could draw upon the strengths from their community supports in times of need to get over the inevitable hurdles that one faces while learning.

Support was a key word that emerged in both student and institutional definitions of community, although no student in the study at the outset of the year identified the cohort as a significant contributor to their personal circle of community. Instead, their definitions revolved around friends and family members who have played important roles in the past with regard to support in times of need. An example from one student's definition of community was: "A group of close people, maybe your friends or family, just being together, supporting."

Engagement was the second key factor in the definition of community. Being engaged equated to being a good community member from both perspectives as well. Students described engagement as volunteering to help others or participating in community activities as exemplified by Anne's comment: "I've been really making an effort, I joined

a mature students association, and a group just for Indigenous students and help at University functions, just to put myself out there to meet some people and be involved in the community." The instructor and coordinator's descriptions of engagement focused on classroom activities and attendance. When asked about engagement, the biology instructor responded by saying: "It's just a matter of if you [the student] want it or you don't. If you want it, you will get it [your coursework] done."

When student participants were specifically asked about the contribution of cohort membership to a personal sense of community, their answers were diverse and ranged from little or no impact on community to tales of caution. The cohort as contributor to community was defined predominantly in terms of social contacts, not support. Socializing with cohort colleagues was often cited as a distraction or something that negatively impacted study habits. For example, when asked directly if how the cohort has led (or not) to a feeling of community within the University, Mary replied: "I feel like I am part [of the community]; the girls, I call them, we have our own little group." As the discussion continued, the personal contact map Mary created characterized the conversations within her contacts as social for the purpose of "gossip." Mary felt the conversations among her group were neither academic nor based around her school work, but rather occurred just for fun. Although Mary found these conversations contributed to her sense of well-being at the University, she did not feel that they were related to her success.

Persistence

From an institutional perspective, the determination of funding was based on program success. Coordinators were asked to justify expenses by accounting for institutionally defined success and attrition. According to the program coordinator, success was

determined institutionally by a complex set of variables, but was ultimately calculated by the percentage of students entering nursing from PNT annually. Program success was also defined by attrition. Attrition rates, rather than indicating success, pointed to a lack of success. According to the program coordinator, persistence for administrative purposes was relatively ignored or discounted, in determining success. Persistence was potentially considered a negative when students remained in the program beyond one year, because they occupied seats that could have been offered to new entrants to the program. It was reported that being persistent, but not successful in administration terms, was problematic.

This contrasted to students' definitions of persistence as a positive attribute. Persistence was unanimously defined by students as the ability to "just keep going." When queried on what academic persistence looked like, participants identified the following activities: studying in all free moments, regular attendance, planning for revision, as well as finding solutions to academic issues as they arose. In short, participants defined academic persistence as doing whatever needs to be done to reach their goals. As described by Anne, persistence was: "Not giving up, so if you are trying at something and you end up not being successful, trying to find another way to continue in that direction, altering your behaviour and finding success." Persistence for students was also inherently tied to success, as the quote above also exemplifies.

Success

Although student success is not a direct question of this research, it could not be removed from the inquiry because it related to definitions of persistence. Success as outlined for administration meant yearly numbers of students completing the cohort program and entering nursing.

Students identified a different conceptual relationship between these two terms when asked to discuss persistence. Persistence was identified by students as leading to academic success and success as increasing persistence. All four of the students who initially participated in the study defined success as achieving passing grades, or reaching personal assessment-based goals as exemplified by Carol's comment: "My aim is to get a 75% in this course." Student participants in this case study did not specifically define success as entry into the Faculty of Nursing after one year, but this was the expectation of two of the participants (Carol and Anne).

It was evident that there was disconnect between student and institutional understandings of the key terms persistence and success. The degree to which this disconnect impacted students' persistence and community will be examined further within this chapter as well as Chapter Five.

Course Design

The initial course design for this research included the development of online supports for the core biology courses. Preliminary discussions with student participants indicated that the University's mandated Learning Management System (LMS) would be the most appropriate platform (home) for these supports. In an initial discussion with students at the time of recruitment to the study, students indicated both mistrust of the researcher and institution as well as concerns for privacy with regard to using other platforms. Carol mentioned her apprehension again during her initial interview: "I know some people did not want to participate because they didn't want you reading their stuff."

Increasing course flexibility by offering a blended learning design that would result in less face-to-face time was rejected by the course instructor. She felt students needed to be present in the classroom to stay engaged in the material, thus a hybrid design was

adopted. In term one, the online supports took the form of electronic lecture notes, audio-recorded lectures, sample tests and an online discussion forum. In semester two, the online discussion forum was removed, as well as the audio lecture. The reasons for removal of these elements are explained in the following analysis of data.

Analysis of Data

The analysis of data in this case study involved a multi-method approach as outlined by Yin (2009) because both qualitative and quantitative data were examined. The quantitative data were reported through the use of descriptive statistics as well as social network analysis. The function of the descriptive statistics was to provide background information on the representativeness of the participants as well as provide triangulation of interview data. The social network analysis assisted in the triangulation of information from interviews. The quantitative data cannot be considered statistically significant based on the low number of participants involved in the case.

Yin (2009) outlined the importance of identifying embedded units of analysis within a case. This identification was done by framing units around the research questions. Three embedded units for this case were identified: Course and Program Design, Community and Persistence. Although there was overlap among these units, the rigid compartments fragmented the data to some degree making it difficult to see the complexity of persistence decisions. The subunits were important for focusing the case clearly, which increased the rigour of the analysis (Yin, 2009). Several overlapping themes emerged from the subunits. These themes are discussed separately in the individual subunits section of this chapter and revisited in the holistic discussion presented in Chapter Five. The dual analysis presented in Chapter Five—first the holistic, then the question-based

discussion—attempted to mitigate some of the problems of fragmented data that resulted from the use of the units of analysis.

Analysis was also driven by a moral imperative, also known as the "eighth moment" of qualitative research (Denzin, Lincoln, & Smith, 2008, p. 4). Eighth moment analysis asks researchers to move beyond the provision of empirical evidence in qualitative research to a critical discourse. While the reductionist approach of traditional case study research represents the world through a series of performances or incidents, reviewing these incidents with the participants in the ongoing cycle of data collection and analysis allowed for a shared space to develop, a space where the researcher and the participants could deconstruct the meaning of the events together. Analysis was guided by decolonizing methodologies aiming to deconstruct and identify areas of privilege caused by the dominant Eurocentric paradigm (Smith, 1999). In other words, for this research the analysis was not positioned to examine the impact of Indigenous knowledge systems on persistence but rather set to question the conflict caused by Western traditions for those students with alternative and equally valid world views.

Course and Program Design

In an analysis of the interview data, three themes emerged from information concerning course and program design. Participants identified the cohort-based classes, scaffolding of the supports and the inconsistencies in the delivery of information as aspects of course and program design that can impact attitude both positively and negatively towards participation in the University. The online components specifically designed for this study were not identified by students as having any impact on their disposition towards course and program structure. The evidence for each of the themes identified by the students is outlined below.

The cohort makes the University more comfortable. One of the key questions program administrators identified prior to the commencement of the research was the role of a cohort in student success and persistence. From the interviews with the program coordinator, it was clear there were concerns about the value of the cohort weighed against financing the smaller class sizes. The cohort was thought to be a generally successful method for increasing student success when contrasted with placing students in mainstream sections where enrolments upwards of 100 students are not uncommon, but empirical evidence was lacking. The academic counsellor stated: "When the cohort came into effect in 2007–2008, it made a difference in students getting through those science courses." The departmental chair (L. Olsen, personal communication, September, 2012) also reported that the adoption of the cohort model was based on research in the field of transitions programming: "Cohorts allow students better student-teacher contact, as well as help the students to connect to one another and the program more deeply." For this same reason, the academic counsellor claimed, one instructor was hired to teach all cohort-based science classes. As outlined by both the counsellor and instructor, the design of the cohort did not include structured community-building activities in either program design or course structure beyond one-to-one relationship building with the students. The primary function of the cohort according to the counsellor was to "reduce the barrier between instructor and student" of the historically challenging first-year science classes.

Although all four students confirmed a lack of structured community-building opportunities within the course offerings or program, this was not observed as a negative. As reported by Anne, the value of the cohort was familiarity:

> It's nice to have familiar faces, but my contact is really just with the people that sit around me and we all sit in the same places every day. I don't see them outside of

class. I didn't come here to make friends; when I am here I need to focus on school and socializing is a distraction.

Anne's definition of community reiterated her perception of community as non-academic socializing. When discussing the cohort's role in supporting community formation for students, students in the study identified the diversity that exists in the cohort (relative to age, background and the catch-all effect caused by students re-taking cohort courses) as contributing to the challenge of making connections. For the most part, the effort required to bridge these differences and develop more meaningful relationships in the cohort was one that students were not interested in pursuing, given their respective "free-time" limitations. As an example of this, Carol responded to a question about connecting to the cohort: "Maybe there are a few people I will walk with from one class to another, but they are a bit younger and really I'm just going there [to campus] to learn."

From the interview data, it became apparent that as the year progressed students limited their relationships within the cohort to meetings that occurred during class time. As such student participants communicated most frequently with those people who sat next to them during class time. By the end of the year, students generally did not extend relationships beyond the conversations that occurred before, during and after class. The limited development of student-student relationships was also confirmed through discussion of contact map data. When participants were asked to qualify the types of information exchanged with cohort members identified in their contact maps, these conversations were dominated by inquiries for information about course content, structure and assignments, prefaced with small talk. Reflecting the staff synopsis of the value of the cohort, analysis of interviews indicated the cohort was considered valuable by students

predominantly because it decreased the intimidation they felt upon entry into the university. Mary commented on the cohort:

> I feel intimidated by how many people there are here, how big it is, but in the cohort, it's more family like than the rest of the university. I feel like with the University in general they don't look out for you so much, but in the cohort people notice if you are missing.

Although participants indicated close connections were not necessary, they suggested that the cohort's small size contributed to a sense of familiarity and community. In the first two interview periods, all participating students repeatedly cited the cohort as being comfortable, in contrast to generally feeling uncomfortable in the University setting. Anne said about the cohort:

> It's nice now because you see familiar faces in the crowd, everyone is not a stranger, even if you just say hi as you walk by its nice to have that, not an anonymous lost person in a sea of people. That can be overwhelming.

The sense of being overwhelmed in a sea of people was also reflected in students' comparisons of present versus past learning experiences. Although all four participants originated from urban centres, their high school as well as upgrading experiences were conducted in institutions that were much smaller. Those who had taken courses in the University prior to entry to PNT also cited the small class sizes as "easing stress" and claimed to look forward to these classes more than mainstream classes because, as Rebecca observed: "It was all the same people, the same small group of people that you knew."

Associated with the change of scale from small to large class sizes, the four students identified a steep learning curve with regard to "learning how it works around here"

during initial interviews. Having the familiar faces and smaller classes in the cohort groupings contributed to reducing the stress related to institutional organizational structures, as exemplified by Carol's comment:

> I feel like it's really one-sided here, like this is the way it is and that's it. I haven't seen that they [university instructors/administrative policy] take other views into consideration. We have a packed schedule and it's just running from class to class, but at least we are all scurrying together.

Despite deriving comfort from the cohort, students did not indicate that they worked together academically. For the most part, the participants in this research indicated they preferred to work alone to study or solve academic challenges. Mary claimed: "When I have a spare, I'll just grab a drink and go sit somewhere because I can't focus here, I need to do everything at home," while Anne preferred "to study on my own, there is too much distraction in a group," and went on to indicate the quiet spaces she found to "hide" and make use of her campus free time. However, knowing there was a smaller cohort group functioned to reassure participants that they were not alone in their problem solving. Students aligned themselves more deeply with the cohort than the larger University community despite their recognition of the diversity of the cohort group. Carol indicated the sentiment reiterated by all of the students in some way: *"*I feel that a lot of other students I've met are similar to me, all thinking the same thing.*"*

Student participants realized that despite their differences all cohort members were likely feeling the same concerns with the program challenges. Recognising they were in a similar "mental place" allowed students a greater degree of security through member checking before sharing ideas and questions with the instructor or larger group. Anne described this experience:

> We usually talk amongst ourselves first if we have questions, to see, like did I get the right answer or am I on the right track, to see what the majority thinks beforehand, and then if I still have questions after that I ask in tutorial.

Each student in the study claimed that the smaller group size allowed them to come forward with more questions sooner than they may have felt comfortable doing in the larger classes. Rebecca identified concerns about safety and trust that led her to strategically choose seats in classrooms on the margins. Concerns for safety within the cohort were reoccurring for Rebecca, making it challenging to connect or maintain connections with the cohort. For Rebecca, initial connections with classmates were slow to develop and as she left the research after the initial interview period in October, 2013, this could not be further discussed.

The role of the cohort appeared to provide safety by limiting the number of contacts required within a classroom and creating a more intimate space for asking questions and expressing ideas. The cohort was linked to the development of community, but was supported by a sense of kinship that developed spontaneously over time through shared experiences of like-minded community members. The cohort was repeatedly cited to lessen stress upon entry into the university community, stress that had in the past led students to question their persistence decisions.

Scaffolding must be relevant to be used regularly. The organization of scaffolding within the courses and the program emerged as a second major theme from student interview data. Scaffolding items that existed in the course and the PNT program were mandatory tutorials for science classes, mandatory monthly visits with an assigned counsellor and the online components added as part of this research design. Students

enjoyed these supports to a greater or lesser degree at different times of the year, but were highly sensitive to supports they viewed as "dumbing down" or paternalistic.

In September, students were resistant to all mandatory items, particularly the mature students. Anne commented: *"*Initially, the individual in me resisted the idea of mandatory. I mean, I know how to study, and I paid my money; why should I be held accountable for such things." Within a very short time, all four students were able to outline the value of these supports. Students began to appreciate the "built-in study time," as well as the opportunity to get extra help with content questions in a timely manner. By the second interview in December, Anne commented:

> After a week of tutorials I thought, this is brilliant, I don't know how the non-Access students are going to make it without because it's a good way to check your progress. If you go to tutorial prepared, you can get a lot out of it. Also the fact that someone is expecting you, you are marked for attendance, it's an enforced study time.

The mandatory tutorials were cited in the second interview as the most valuable mandatory support provided within PNT. A sense of security was something that developed over time within the group and this limited the value of tutorials in the first few weeks of participation. In the first round of interviews that occurred in late September-early October, two of the students (Carol and Mary) indicated they were too overwhelmed with both the content and the University experience to feel comfortable asking questions in the tutorial or lecture sessions. The students' comfort level shifted in a short period of time based on the instructor's intervention (e.g., preparing sample questions on material and encouraging participation through questioning) and the students becoming accustomed to the structure and relationship of the tutorial and lecture sessions. In

reflecting on the first few weeks of the tutorial, Mary reported how the instructor's actions were critical in facilitating this shift for her:

> The instructor prepared some questions for tutorial because we didn't have any. Then when I said I understood, she said, I don't believe you, and she made me explain, that was good because then she could see that I did know and it got everyone talking.

In analysis of the subsequent two interview periods (December 2013/January 2014 and March/April 2014), it was evident that, as the year progressed, students' attitudes changed with regard to mandatory tutorials and participation dwindled. By the third interview period (just prior to final exams for the winter term), only two of the three remaining students in the study continued to participate regularly in tutorials, albeit for different purposes. Anne indicated she attended only to receive the associated participation marks as she now felt confident enough to study on her own without the assistance of tutorial, while Mary indicated she still enjoyed the additional support. This contrasted with the experience of Carol, who indicated she had reached a level of anxiety about course content that made tutorials challenging. Carol felt she had reached the point that she no longer knew where to start asking questions: "You [the instructor] lost my point when I was with you in class. I had questions then, but now it's gone." For this reason, her self-reported participation became more sporadic. Student use of the tutorial support seemed to peak about mid-term, when all students interviewed were in agreement about the benefit of this support.

The mandatory meetings with the academic counsellor received mixed reviews from the four students at initial interviews. At one extreme, the counsellor was found to be "useless" because she was not able to provide enough specific information about

strategizing ways into and through the Faculty of Nursing. At the other end of the continuum, students reported that the academic counsellor was absolutely instrumental in solving problems and assisting with crisis moments. By the second interview period the remaining three students were thankful for the counsellor as an advocate for them within the University, although two (Carol and Mary) found they had little to say during the prescribed monthly meetings. All students also stated the counsellor's concern for their success was genuine and comforting. Rebecca observed in her initial interview:

> There is so much stress in the beginning, and I just have to figure out how to deal with it. I have my moments where I have had my limit and I just need to walk away for 20 minutes, but now that I know my counsellor and the open door policy I can just turn up there and talk and that works.

No student indicated difficulty with the counsellor on a personal level; they all genuinely liked the counsellor. However, students were ultimately uninterested in program and course structures that were not directly relevant to their immediate needs. If the students were not at a crisis point, did not need an advocate, could not get specific course elective advice, or did not like the advice they were given, they resented having to meet with the counsellor. This was evident in the following comment from Anne:

> For me the counsellor is a requirement. It's not that she is not a nice person. I just don't need it and things get busy so you can't be everywhere all at once, can't make the time, or don't want to make the time, but then you just have to remember they are trying to help.

Again, like the tutorials, appreciation and use of personal counselling support dropped off towards the end of the year, with two students (Anne and Mary) participating as mandated only to avoid reprimands for not participating. Alternatively, Carol was

communicating regularly with the counsellor for academic and personal support and guidance because she was dealing with personal issues.

Very few of the online supports provided were considered useful by the students who participated in the study. From the analysis of the student interaction in the LMS, the following trends were discovered. First, students did not post in the discussion forum, nor did they read posts. Second, only Rebecca accessed the recorded lectures in term one, and her access was limited to listening to only two of the possible 26 lectures see (Figure 4). As Rebecca withdrew from the study in January 2014, it was not possible to determine why she chose to listen to recordings nor why she stopped. For the three students remaining in the study in term two, the recordings were considered "too time consuming" to use.

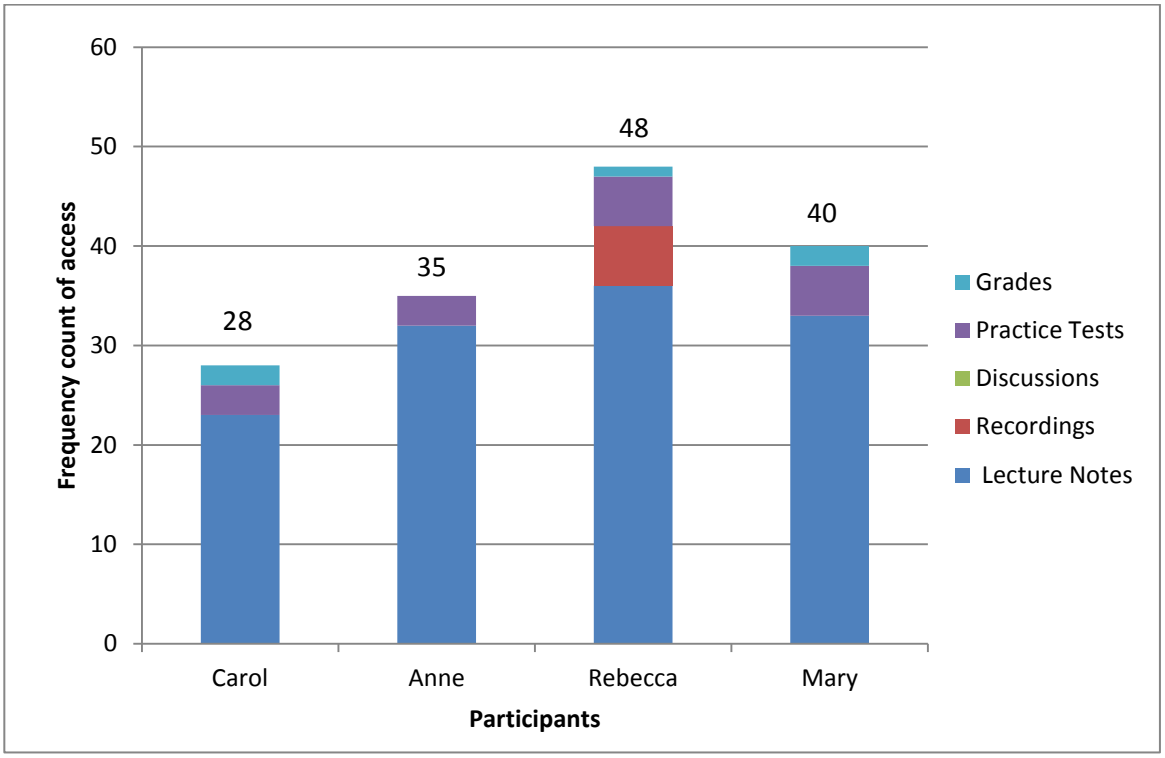


Figure 4: Participant access to LMS offerings in course one September–December 2013.

The rationale behind providing students with a recording of the lecture was to allow them to re-listen to a lecture that may have been unclear or presented too quickly in class or to replace a missed class. Through the interview with students, it was discovered the recorded lectures were considered ineffective for the same reasons the tutorials and counselling sessions were rejected. *"*I listened to the lecture when I missed a class.... actually I didn't use the lectures. I just couldn't find the time to listen to them, getting notes from someone is easier*,"* Carol reported during her second interview. The online recordings were removed from the second term course, based on student feedback.

The second online component added to the course was the addition of a discussion forum. The discussion forum was created in the LMS to allow for an alternative form of question asking and answering for those who were either unable to participate in a tutorial physically because of timetable or other conflicts or those who might have felt too shy to ask questions in class or tutorial. In the first offering of the course, online discussion forums were seeded with questions to encourage participation. Participation was encouraged in the face-to-face lectures by the instructor. When students were interviewed about the value of the online discussion forum, their responses can be exemplified in this comment from Anne: "I just find that a lot of effort to do, when really I just need to get my homework done." As part of the tutorial participation assessment, which accounted for of 10% of the students' final grades, students were informed that participation in the online discussion would count for points. In other words, students could make up for missed tutorials and earn up to 10% of their final grade through participation in the online discussions. However, it appears from student responses that neither the inherent value of the forum nor the external value of "participation marks" was high enough to encourage students to participate. No student in the study posted to the discussion forum. The online

discussion forums were removed from the design of the second course offering due to lack of participation.

From the interview data, it appeared that if there was no immediate and efficient advantage to the student for use of an item, it was ignored. This same reasoning provided the explanation for the parts of the online design that were used by students. Practice tests and the electronic lecture notes (made available before class) were often cited as useful, as noted by Anne:

> I go on there all the time to get my notes, I print them and read them before class. I bring them to lecture, makes notes on them, and if I have a question I write it there so when we have tutorial I can find it easily. It's so efficient.

The orientation activities provided in August were also not appreciated unless a direct link to personal advantage was readily apparent. Anne continued to comment: "Orientation could have been shortened; it was two weeks. They teach you how to make notes and stuff like that, it was useful, but the one in January is better because it's smaller group and more specific, less socialising."

Items from orientation that were cited as valuable by students during interviews were the introductions to the Writing Centre and tutor information, a scavenger hunt through campus to find out about supports, as well as navigation of the campus, and the "cheat sheets" prepared for specific study skills improvement such as American Psychological Association (APA) formatting. The tangible gain from a student's perspective was also most often measured by how this item or activity would help to improve assessment achievement, either in terms of higher grades or faster route to task completion as exemplified by Anne's experience with the Indigenous students mentor program: "I met

with a mentor once, and she wasn't able to answer my questions about nursing, so I didn't go back. I need someone more focused."

When queried about the scaffolding provided within courses, students unilaterally identified the critical role of the instructor in organising the course content in a way that it could be consumed by the student easily: "It needs to be like a doctor speaking to a patient—first you break it down into little bits and then build it up" (Carol). Students also identified the importance of the instructor's personal organization skills. For example, Mary reported that:

> If the instructor is organized that really helps. Like telling you this is what you need and not giving vague answers or taking a lot of time on things we don't need to know. If the prof is organized then it forces you to be organized and you know you have the proper material.

Students outlined a list of items that characterized an organized instructor: accurately following the course outline, developing and maintaining deadlines for assessment tasks and generally coming to class with notes prepared in advance that progressed in a logical manner. However, student participants also indicated that breaking content down into too many minute pieces could be insulting, as exemplified by Carol's comment: "…sometimes they simplify too much. I remember an example from nursing and I thought, why are you telling me this, is it not common sense?" Deconstruction of content could also cause students to lose sight of the context of their learning as reported in the following quote from Carol:

> Maybe I'm wrong but I find at university they seem to construct things. They start from the small and work up to the big picture, whereas in high school they deconstruct everything, I'm used to that. My brain doesn't want to work the other

> way. I can't see the forest for the trees; you know, I need to see the forest so I can recognize the trees.

Carol proposed that funnelling information from larger concepts to smaller, such as looking at body systems before cellular structure rather than the reverse might allow her to make more sense of the instruction. At the time of the second interview, Carol and Anne questioned the validity of the structure of the biology courses as it had been explained to them. Both students claimed the instructor said material started with smaller components and how these components worked together would become clear by the end of the year. In the last interview, Carol—who felt she was struggling academically—still identified the compartmentalization of the content as being one of the reasons for lack of clarity. She felt the "big picture" was still missing and identified an inability to relate what was learned to nursing. Carol was quite concerned with both the value of the material selected for study as well as her ability to learn it:

> I just want to get into nursing and start learning the practical stuff, like a lot of this stuff we are doing now, we aren't going to use that again. And I've even heard graduates say they get out into the hospital and that's where they learn how to be a nurse, but I don't want to do that, I mean I could kill someone if I don't know what I am doing.

Carol reported a "roller coaster" of success and challenges, both academic and personal. She also became highly critical of the supports provided by the University. Carol focused criticism on the standards and organization within PNT, she commented that "it seems irresponsible of the faculty not to prepare us for nursing. I don't just want the paper, I want to be ready to work."

Student participants identified time pressures external to the University environment that encouraged them to be very selective about how they used their time. Any course structures without very clear and specific advantages for students were considered a waste of time, as were teaching approaches that were not highly structured. Course notes were appreciated because they made both the lecture and study time more efficient and also ensured a clear structure and format for classes that could be easily followed. From the interviews, it became evident students in the study were discerning learners, who wanted clear guidelines and the most efficient path towards course completion. Positive experiences with scaffolding served to reinforce persistence decisions and encourage success, while paternalistic experiences or perceived inefficiencies frustrated students and impacted persistence negatively. In extreme cases, negative experiences lead to mistrust that the institution would provide what it had promised.

Inconsistency in delivering information. Not only was instructor organization an issue for study participants, but program organization was cited as a frustration or impediment to acquiring information in the first few weeks. In initial interviews, all four students noted that improving program organization or consistency in communication would reduce the stress of finding ones' way in the first few weeks of orientation. In the first round of interviews, students cited inconsistencies in how instructors used technologies provided by the university and which technologies were used as being some of the greatest frustrations and barriers to integration into the University community. The following is quote from Anne who shared a frustrating experience in her first lab:

> Today was my first lab. I haven't been to a lab since high school, and I went on D2L and Jump to find out what I needed and couldn't find anything and when I

> got there it was like ‘so you have all read the lab and you should have brought your text and you should be prepared to work on your own’, and I said what?

As students were initially unsure of the expectations of University, learning to navigate these inconsistencies created stress. It also added to self-doubt:

> There was stuff I thought I did, like I went to claim my ID, then I found out it was the wrong ID, and I needed another one, I thought they were the same. If I can’t even figure what I need or where to get this information how am I ever supposed to learn? (Anne)

Inconsistencies in communication led to inefficiencies because of the different approaches used by various course instructors. Misunderstandings of task requirements were frequently reported in early interviews; these misunderstandings reported in September, 2013, interviews were attributed to not being able to locate the information or to “information overload.” In the previous example, Anne explained her challenges trying to login to one of several technology-based systems on campus. The University had enabled as a single ID access to most campus features; however, instructors and departments used the University-mandated learning management system (LMS) Desire to Learn (D2L) to different degrees and purposes alongside Jump, which is a virtual desktop tool, plus a third administrative registration and scheduling tool. Students reported they were directed to find course information including syllabi and course instructions in one or several of these different platforms. Inconsistencies in the source of information, accompanied with insecurities about entry to a new program, caused confusion and frustration among the students interviewed.

By the third interview, the remaining three participating students reported they had “hit their stride” in finding the information they needed, with one exception. Students

who attempted to contact the Faculty of Nursing about future course planning felt they were not able to get the information they needed. Anne and Carol reported they had used inconsistent course information to “work the system” throughout the year. Alternatively, all three students reported an appreciation for the consistent aspects of specific courses such as exam formats, class and tutorial structures.

To summarize the analysis of the course and program structure subunit, the participating students identified the following three key issues related to lessening the stress associated with university entry: 1) provision of the cohort or a smaller scale University experience, 2) provision of course and programmatic tools that increase effectiveness of study time and 3) clear dissemination of information to assist in the organization of study time. The reduction of stress and increasing efficiency may positively impact persistence decisions, while the opposite is also true, leading to frustrations and mistrust. Trust and issues of mistrust are themes that were repeated throughout the examination of the community subunit as well.

Community

Tinto (1975) indicated the importance of social and academic integration in facilitating persistence; therefore, the second subunit of this case study centred on community experience. Contrary to predictions, community membership—both online and face-to-face within the course context—played a marginal role in persistence decisions. Interview data indicated connections between students within the cohort were not strong, nor did they extend beyond scheduled class times. However, the function of community was more complex than simply student-student cohort member communication. Analysis of interview data alongside contact maps indicated that the student-teacher relationship within the cohort was the most critical relationship impacting persistence decisions. It is

important to note, in descriptions of community that among the cohort 93.3% of the students were female and 44% had children (S. Burns, personal communication, March 20, 2014).

As discussed in the previous section it was thought that given the complexity of students' lives, the provision of a technologically-mediated space for community as well a space for virtual presence would offer some respite for students. However, interview data indicated a dedicated physical space was more important to the development of a sense of community than a technologically mediated one. Each of these three themes that emerged around the construct of community were examined in more detail to begin to explain some of the factors impacting community membership and persistence decisions: hesitation to join the cohort community, the student-teacher relationship within the cohort community and a dedicated Indigenous space as a connection point to the larger University community.

Students were hesitant to join the PNT community. Student participants entered the year with caution towards the relationships within the cohort and the community. Mature students (Carol and Anne) were hesitant to invest in the cohort, citing the age gap between themselves and the other students. "Being around a lot of young people I forgot how shy I was when I was young; now I don't have time for that," claimed Anne, while Mary made statements exemplifying her distaste for "drama" or "gossip" as unnecessary distractions to on-campus study time. As Mary noted when she described her free time spent at the Eagle Lodge: "If you want to chat, that's fine, but I'm here to study."

Students were also hesitant to bring family members into the University community. In the preliminary interviews, three of the initial four student participants identified themselves as first generation university students, citing they came from "families of

workers" rather than professionals. In this case, all participating students felt they could not turn to family members for full support and understanding. By the second interview period, all three of the remaining students (Carol, Anne and Mary) reported their spouse/partner as being an excellent "cheer-leader" or support in terms of coordinating household chores or facilitating study time in other ways. However, there was no involvement of family members in the University community.

The student-student relationships tended to remain on the level of "familiar faces." The PNT program was designed to be completed within one year, but as stated previously, many students required more than one year. Students' cohort relationships potentially extended beyond the current year's cohort. By the end of the first term, Mary reported feeling more connected to her starting cohort than the current class. Mary had established a larger community of contacts in the University and did not necessarily want to extend the energy and time needed to develop further relationships in the new cohort. The two students new to PNT (Carol and Anne) initially spent a great deal of time with one another, but had what they described as a "falling out" in the first term and resolved to focus on academic pursuits rather than social engagements, citing relationships as "a distraction from work."

At the outset of the research (beginning of the academic year), all four participating students viewed their time in the PNT program as transitional and frequently made comments premised with "when I get in the faculty." While the students confirmed that the PNT program was an excellent support, they also hoped this was a temporary relationship as they strove to become members of the Faculty of Nursing community. Student participants quickly recognized the challenge of entering nursing and demonstrated a great deal of anxiety about maintaining a GPA high enough to apply. By

the end of the first term, three of the four remaining student participants (Carol, Anne and Mary) made reference to their preference to chat with "like-minded" individuals, that is, those students who were also working hard to enter the faculty in the following September. Anne reported she only spent time with the "serious" students. From the interview data it became apparent through comments like "everyone gets busy, and you don't make the effort to connect" (Anne) and "some people get together on the weekends, but I came here to study not socialize" (Mary) that study participants were as careful about their investment in time for making social connections as they were about their study time.

The students appeared to want to build relationships that would be helpful to their success, as this comment illustrates: "I go to the nursing room and talk with students in nursing to get tips, you know, like keep those notes or watch out that topic will come back" (Mary). All three students made attempts to connect with the Faculty of Nursing and nursing students directly as they viewed these connections as helpful for future success. Their contact with the nursing faculty was starkly contrasted against their experiences of the PNT community. When Anne was asked directly about her experience with the Faculty of Nursing, she responded: "The nursing faculty seems a bit unfriendly, not approachable, particularly to students who are not yet accepted." Student participants cited being treated as outsiders based on their attempts to contact the faculty for advice and guidance on course choices.

Students also recounted with some trepidation conversations with current and graduated nursing students they met through their personal contacts or designated nursing student study areas. Student participants feared the "sink or swim" practices they assumed

would begin after leaving PNT for the mainstream Faculty of Nursing. The following quotes from two students illustrate this point:

> I heard you have to do this exam next year, if you want to go into clinical and there is no preparation. It's just based on a dosage class we do this year and no one tells you, so if you don't keep your notes and do well on that exam then you don't get to go to your clinical. I don't know how that works. (Carol)
>
> My friend who is in nursing told me they are not flexible like the cohort. It's sort of sink or swim; they don't care. I don't know how I am going to balance it. I'm scared of that, all those courses and labs. (Mary)

Students also indicated the academic counsellor was not able to provide enough information to help them feel secure in bridging from PNT to the Faculty of Nursing. By the end of term one, all four participants outlined some level of anxiety between the separate communities of PNT and nursing, with concerns the PNT community might not be adequately preparing them for their future path in nursing either because "I don't have career counselling that is specific to nursing" (Anne) or "they don't tell you how important this will be later" (Mary). Student participants felt the PNT community could not be trusted to provide them with accurate information about future decisions in nursing, or how to navigate time after acceptance into nursing.

However marginal students have claimed that individual relationships with other students in the cohort may have been for their persistence decisions, in all three interview periods each student participant frequently cited the dedication of the staff (instructional staff, counsellors and administrative assistants). Knowing that someone was going to miss them if they did not attend the regularly scheduled classes, tutoring and counselling sessions was outlined as an important function of the PNT community. Similarly

significant was knowing that faculty and staff "will really advocate for us" or "really work with me to get the credit if I show the effort."

Students entered the PNT community with a critical eye and some skepticism towards issues related to relationship building. Carol equated this to a dollar value: "I am worried I am not getting what I paid for…there is a certain coldness to the University." The students' skeptical dispositions may be related to their past experiences with communities in general, as all four of the initial participants indicated some level of discomfort with previous community memberships when asked to define community during their first interview. In describing her perceptions of community Carol said: "In my younger years I thought of community as those other people...now I think of it differently, now I feel a part of it."

By the end of the year, all three of the remaining students (Carol, Anne and Mary) indicated they felt loosely connected in some way to the PNT community. Carol and Anne also connected with the broader Indigenous community on campus as a place to "fall back on." Student-student relationships remained superficial with the majority of connections related to inquiry about course content and instructions. However participants described their student-teacher/staff relationships very differently.

One-to-one student-teacher relationships were the most important. Throughout the three interview periods, participating students indicated the importance of the student-teacher relationship. Anne described her strategy for connecting with the instructor in the first few weeks of class: "I always get to know the instructor, and I don't necessarily want to be the keener, but I ask questions, or go to class early to chat." Social Network Analysis (SNA) of students' contact maps, derived from data provided at the end of term, confirmed the centrality of the instructor in students' on-campus connections (see Figure

5). SNA data also confirmed the loose connections between students, as there were few connections between students that were identified as Cx (where x indicates a variable number assigned to individual students). Absence of double-ended arrows between participants indicated that although some participants in the research communicated with one another, their bond was not memorable enough to be reciprocated.

Connections overlapped between the students who were identified in interviews as "serious" students. The Social Network Analysis data indicated there were few student-student connections within the PNT cohort. Those connections that existed were described as weak, or acquaintances for the purpose of small talk as opposed to strong connections or meaningful friendships. When describing the role of these contacts in their community, all three of the remaining students stated they communicated with cohort members only about items related to assignments and course content. When queried, the students claimed they intentionally kept contacts within the cohort weak in order to minimize distractions and maximize learning efficiency.

Interactions with the primary instructor for the biology courses were qualified as both social and academic, however. Carol claimed: "She [the instructor] is different. It is not just a student-teacher relationship, although I wouldn't necessarily call her a friend either." The instructor confirmed the students' assumptions about the student-teacher relationship: "It is informal and friendly" and "You get enmeshed in their families, how many children they have, who is sick; you almost become a part of it [their lives]." Students stated that "friendly" instructors led to more positive experiences in the University. When asked what made an instructor accessible and friendly, factors such as similar age and/or gender and a willingness to communicate outside of class time were cited as important attributes. Being "like me" allowed students to develop a relationship

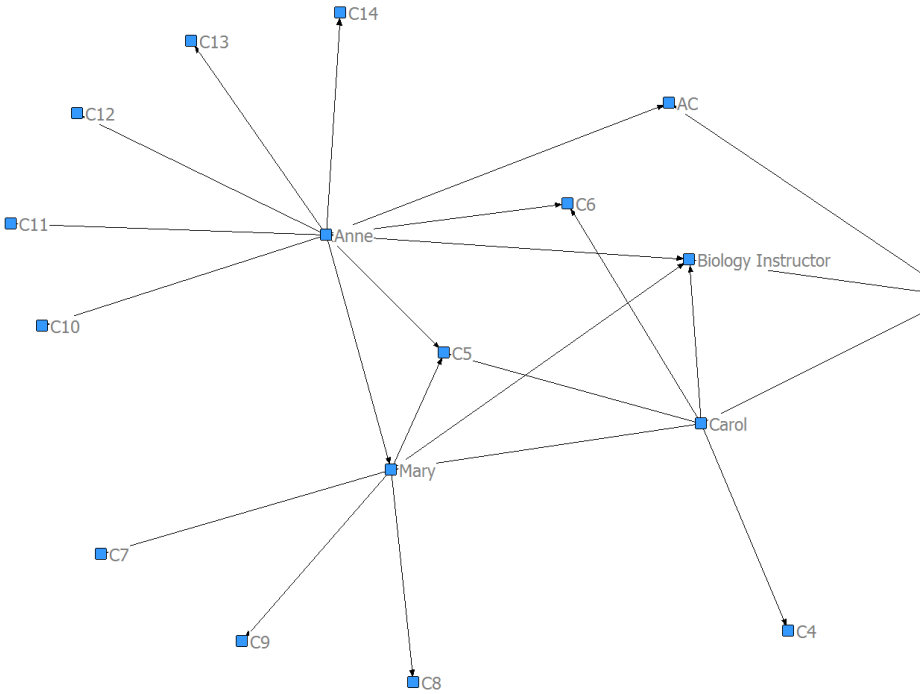


Figure 5*: Social network analysis array of recalled contacts within the participant group. Cx indicates student within the Access program though not necessarily the current cohort. Ix is an instructor, Sx a staff member and AC the academic counsellor.*

with the instructor that went beyond the formal classroom setting, as noted in the following quote from Anne:

> She's personable, you can ask her about her weekend, I can show her pictures of my family and we can laugh about the same kind of jokes. I would never do that with other instructors; I feel like they would say 'what's wrong with you?'

The instructor of the prerequisite biology courses stated that she worked hard to maintain a relaxed atmosphere with her students, but still maintained professional boundaries. She noted she had not personally had problems with "blurred boundary lines." However she was also familiar with the students in a way that might make some instructors uncomfortable. Students cared about the instructor's well-being and were also informed about her life outside of the institution. As illustrated by Carol's comment "I

know [the instructor] had lost a friend, so I went to class and spoke with her about it because I knew she was really upset."

Physical spaces also contribute to community. All four students initially interviewed identified Eagle Lodge as an important place for community introduction. Eagle Lodge was a building dedicated to Indigenous students. The building houses Access and Indigenous based programs administrative staff on the second floor, while the ground floor is predominantly a student resource area with facilities such as a computer lab, a kitchen, social and study areas. In the first interview session, students reported they spent the little free time they had during the day at Eagle Lodge. The participants said they appreciated the opportunity to use the resources provided as well as the quieter space it offered, as illustrated by the following comment:

> I get a bit of a break at lunch time, so I go to Eagle Lodge. You can sit and chat there, make your lunch because they have a full kitchen. They have a computer lab and it's a bit quieter there, people are respectful that way; even in the main area, they are either studying or low talking, otherwise the rest of campus is just frantic. (Anne)

Two (Anne and Rebecca) of the four students initially interviewed claimed they found larger campus centres like the student centre or the library too loud and chaotic. Eagle Lodge appeared to offer safety in the first few weeks on campus in what was generally considered a busy and impersonal environment.

By the second interview, all three of the remaining students categorized Eagle Lodge as a positive space. Mary reported she preferred to spend her time at Eagle Lodge because "they are all so welcoming over there, all the staff say Hi when you walk in."

Eagle Lodge also served as a space where participants could connect with students in other cohorts, be it different subject areas or year groups. As reported earlier in this chapter, one student was brought into PNT because of a chance encounter that occurred in the Eagle Lodge.

Over the course of the year, two students (Carol and Anne) drifted away from Eagle Lodge, seeking out quieter spaces on campus; however they continued to frequent spaces dedicated to Indigenous students. Mary continued to visit Eagle Lodge regularly to socialize. By the end of the year, all three students reported Eagle Lodge was an excellent location for centralizing their needs because the building held most of the resources students commonly accessed. In discussing resource availability Carol claimed the building was too small, which resulted in some offices being dispersed across campus regardless of the original intent of the building design. All three students commented on the distribution of resources throughout campus as a challenge, with comments like: "We are scurrying all over the place" (Anne).

Students identified with Eagle Lodge as "theirs," that is, a place dedicated to Indigenous culture, either as a place to reconnect with Indigenous values or as a safe place to meet other Indigenous students.

Persistence

In the previous two subunits, themes that impacted students' University experience were examined. The themes that emerged were not in direct response to questions about persistence but rather program structure and community impacts on students' experience. To determine the degree to which these items impacted persistence, the semi-structured interviews were designed to triangulate information by closing with direct questions to students about the factors they perceived to impact persistence. The following themes

emerged from these questions that provide evidence related to students' persistence decisions.

Early success in the tangible form of grades. Students entered the program outlining varied personal experiences related to school, and academic success in the past. In initial interviews, all four students outlined some degree of fear of failure with regard to the PNT program. For example, Mary said: "You hear a lot of things about your first year, that it is so different from high school and I was scared going in. Achieving those good grades in first semester started things off well for me."

Although student participants defined "failure" differently, ultimately all participants tied their success to grades, either passing or achieving personal goals related to assessment. All four participating students stated early positive feedback in the form of grades for assignments was the motivator for continued efforts as well as a reassurance for future success in higher education. Anne described the role of grades:

> I had good grades in high school and I wanted to see if I could maintain that in university. I ended up getting higher marks in my classes than I expected and it just kinda gives you that little bit of confidence.

Receiving feedback on successful assessment tasks early in the program provided students with positive feedback and increased persistence, as Anne continued to explain: "Getting those marks back, that just said all that effort paid off, you are doing something right, so just keep moving in that direction." Success served to show the students they were indeed capable, and that their efforts were being rewarded.

In addition, all three of the remaining students who participated in the second interview claimed prior academic success in PNT served as a reserve to increase

persistence during times when students were less successful. The following is one example shared by Mary:

> In the first semester I did really well, I started the year off well, it didn't continue that way...I was scared of this, dropping grades, so getting the high grades was really important. In second semester, the classes were different and I got overwhelmed, but I remembered those high grades and they helped push me and keep me going.

Grades served as extrinsic motivators for students. Students wanted to get good grades and were intimidated by receiving lower grades. When students received good grades in the initial term test, they reported feeling more confident and also more encouraged to continue working. However, obtaining these grades and maintaining persistence was also facilitated by internal motivation factors. As Rebecca indicated in her first interview: "I am the only one in university right now, so my family depends on me to succeed," the fear of disappointing family members also helped to motivate students. The drive for a "better life" was a comment that was repeated by all study participants. When asked about the possibility of failure or not making it into nursing, Carol responded: "Failure is not an option." Students felt a great deal of responsibility to improve the living conditions for their families through successful completion of the nursing degree. Both Carol and Mary additionally noted the importance of being "educated" and to "have the paper" as external validations of their self-worth.

The degree of self-efficacy a student demonstrated dramatically impacts persistence. Carol, Anne and Mary identified themselves as responsible for their education or responsible for their results. They demonstrated high degrees of persistence. These students were able to "just keep going" in the face of challenges. During

interviews, student participants identified strategies such as regular attendance in class, the development of study schedules, study skills and stress management strategies as factors that impacted their performance that they could control. Carol, Anne and Mary regularly reached out for assistance when issues arose and developed specific plans of action to address challenges.

> If it's something that is important to you and you know you don't understand, then you just tell your professor, "I really don't understand that" and ask them to re-phrase or give an example, you know, just to make sure you get everything you need to succeed. (Mary)

All three also claimed personal responsibility for their academic success and made comments such as "I wasn't impressed with my performance, so I just had to crack down; I gave up the gym and just started studying" (Anne). Mary and Anne, who demonstrated high degrees of self-efficacy more clearly prioritized issues related to academic success and persistence. They also appeared to manage stress more successfully when challenges arose.

> In the beginning, I was so panicked at certain points I thought my head was going to pop off, and I just thought, this is ugly, I'm not going through this again, so I made a plan to make sure it didn't happen in the next term. (Anne)

The biology instructor shared similar observations in response to questions about success or persistence: "I think the things they [students] will let get in the way, or the things that they will let act as an excuse sometimes, shows you the differences between them."

Paralleling this determination was the fact that Carol, Anne and Mary were self-funded and not receiving any financial supports, loans or bursaries. In all three interviews, Carol and Anne regularly referred to the importance of taking action to achieve high grades because the actual costs of failure were too high.

Persistence did not equate to timely completion of credits. During the final interview, all four of the remaining students identified themselves as persistent regardless of successful application to the Faculty of the Nursing. Two students (Carol and Anne) had applied to the Faculty of Nursing; Anne was confident about acceptance, while Carol was hopeful she would enter through "special consideration," that is, the seats reserved for cohort students. Both Anne and Carol were accepted to the Faculty of Nursing without special considerations. Although in this case 50% of the students successfully transitioned, it was clear from interview data that they were not able to follow the prescribed pathway for entry into the Faculty of Nursing. For example, neither of the successful students entered the University for the first time within the cohort as prescribed in the program outline. In comparing students' self-reported progress to that of the PNT program plan, it was noted that no students completed the PNT program in the manner outlined by the program designers. Carol and Anne, who were successful applicants by the conclusion of data collection, both started taking elective courses one semester prior to entry in PNT. Mary, who had entered PNT in years prior to the fall 2013 intake, felt she did not have enough credits or the GPA needed to submit an application in May 2014. All students identified the need to a "softer" start into PNT, to allow time for learning the system as well as study habits and establishment of routines. Anne and Carol realized these needs before entering the program and created their own entry pathways, as exemplified in the following comment from Anne: "I started in January, I thought I'm

just going to try this out, start slow, taking two courses and see what I can make of it because it's really intimidating."

Mary also entered university prior to PNT with disappointing results as she felt she was unaware of and unprepared for the demands of the course load she selected. The course load within PNT and the approach to teaching and learning posed challenges for students that added to their stress and intimidation as Anne explains:

> There's a missing link from high school and university. They don't prepare you; it's a completely different work load and some things gotta give, either the university end or those final years of high school, they somehow have to meet in the middle. Right now it's a big cliff and you have to jump off. The biggest challenge this year has been learning the system. I catch myself saying, but no one told me that, but it's a different way of thinking. It's not someone else's responsibility so making that adjustment has been hard at times.

In final interviews, after having completed the first three biology requirements, all three student participants identified the challenge of the first year biology courses as being too great of a leap from high school expectations. Mary felt she needed to repeat the biology courses or take other prerequisites over the next year in order to achieve the GPA needed to apply to the Faculty of Nursing. While Carol was disappointed to learn the class average for the biology courses was 65% and felt resentful towards the program/course design that led to this state. She remarked: "If that is your average, maybe the course expectations or teaching is wrong; 65% is not a good mark in my opinion." Carol also observed that "the younger ones just out of high school with this content fresh in their mind can do well, because they already know the material, but those who have to learn it for the first time have twice the challenge." Only Rebecca, the sole participant

that entered university directly out of high school, did not comment negatively on the transition from previous learning to the university setting. However, she also left the study at the end of the first semester of the program.

The student participants indicated that funding had a dramatic impact on their decisions to retake or select new courses, as well as plans to apply for or complete the nursing program. All three students (Carol, Anne and Mary) paid for courses directly and indicated they were more cautious in the selection of courses to ensure a successful term; as well, they strategized the balance of courses over fall, winter and summer terms.

Verification of the Case Report

All participants received a copy of the results of the final report via email and were given opportunity to provide feedback. Four of the five participants approved the results as they applied to themselves with no further additions or comments. The final participant did not respond in the time allocated, indicating tacit acceptance of the documents presented.

Summary

The key findings of Chapter Four indicate that persistence decisions were impacted by program design and personal attributes of the participants and less so by their experiences within the community. The creation of virtual space for community within the program design also did not contribute to persistence decisions.

The nature of the cohort relationship was complex. Students appeared to value the cohort program because of its reduced class sizes as this provided a feeling of safety and familiarity within the larger intimidating University experience. But students did not invest time into their student-student connections within the cohort because they viewed this as a temporary place, a stepping stone for entry into the Faculty of Nursing. Pressed

for time, students seemed to limit their engagement in community and the university to activities that had a tangible and direct result on academic performance, rather than building relationships. The only relationships students directly acknowledged as important within community/cohort were with the instructors or other academic and administrative staff. However, they indirectly indicated a connection to community by making statements indicating the importance of their absence from class being noted by class members.

The primary frustrations students encountered were related to both institutional and program structures that appeared inconsistent or confusing, paired with the difference between current learning expectations and those of previous educational settings. Students also cited a sense of disconnection from the Faculty of Nursing as leading them to doubt about the future and that impacted persistence decisions. This took form of skepticism regarding the role of PNT and the Faculty of Nursing in preparing students for a future career in nursing. These findings will be discussed further in Chapter Five.

CHAPTER FIVE: DISCUSSION OF FINDINGS, IMPLICATIONS AND CONCLUSION

Introduction

In Chapter Four, the analysis of data was presented through an examination of emergent themes. Chapter Five discusses the findings from the study in two parts. First, the holistic responses to the research questions are discussed as they relate to the students' experience. The medicine wheel framework outlined in Chapter Two serves to guide this discussion because the medicine wheel is considered an essential tool for understanding self by many North American Indigenous peoples (Laframboise & Sherbina, 2008). Second, a discussion of the findings in response to each of the research questions is presented. This latter discussion is grounded in the relevant scholarly literature as part of case study analysis (Yin, 2004, p. 176). The chapter concludes with a discussion of the implications for practice, directions for future research and final concluding thoughts on the case.

Summary of the Study

The purpose of this exploratory case study was to provide an understanding of the factors influencing non-traditional students' persistence decision-making processes. The aim was to discover what elements at the institutional and personal levels influenced students' decisions to persist in their course of study. The case study was designed to examine Indigenous students' persistence decisions in a Pre-Nursing Transitions (PNT) program at a university in western Canada. The case collected quantitative and qualitative data from four pre-nursing students as they participated in the PNT program over the course of one academic year. Quantitative data consisted of records of online participation in the university's Learning Management System (LMS), the creation of

contact maps and demographic statistics related to the population. Qualitative data consisted of interviews that took place in September, December and April of the 2013–2014 academic year. The academic counsellor and one instructor also participated in interviews in April 2014.

Discussion of the Findings: Holistic Response

The East: Emotional

The literature review indicated that the East or emotional domain refers to one's mental state, including how one's emotional state translates into actions with the self and others (Toulouse, 2011). Students were resistant to joining the PNT community. There was also resistance to bringing their family members into the University environment. Carol, Anne and Mary maintained a guarded distance between school, which they viewed as work, and home life. This evidence is supported by similar findings by Gold (2011), who also claimed that when these two separate groups are in conflict, family takes priority over educational group membership. Conflict between the two group identities was also observed in examples from students' discussions around periods of conflict for persistence. For example, during the course of the data collection period, Carol indicated she was faced with an overwhelming emotional conflict as a family member was diagnosed with a severe illness and she felt immense guilt about her inability to help because this would have meant extensive time away from school because of the travel that would be required. Carol claimed it was this point that severely impacted her persistence decisions and lead to a disruption in her studies. Had it not been for her positive relationship with the academic counsellor, she may have left the PNT.

Students universally approached their academic journey as one that needed to be completed individually. All students in the study indicated the need to study alone stating

that the members of the PNT community were “distractions” rather than collaborative partners. In support of this experience, research literature related to Indigenous student integration in university communities has cited the role of colonization as leading to a sense of mistrust of others and the institution (ACCC, 2010). Although students in this case did not identify mistrust as a factor for their lack of engagement in the community, it should not be discounted due to the number of references students made towards seeking “safety” within their classroom experiences.

Each of the students mentioned feeling alone in their educational journey. Hardes (2006) claimed students may feel ostracized from their family and friends by nature of their affiliation with the university and higher learning. When directly asked about the changing nature of community memberships, the students did not indicate any conflict between family and university community membership, but they also cited varying degrees of support with regard to familial understanding of the academic journey. Carol stated her unique position within her extended family: “No-one in my family has graduated from college; my family are workers,” while Mary said: “I don’t have a horrible life, but I want better things, for my family even though they don’t really acknowledge [my efforts].” Comments of this type lend support to Hardes’ (2006) claim, that is, to join the university community means at least to some degree of separation from family community. Pidgeon (2009) identified this conflict and discusses it in terms of Bourdieu’s (1986) theory of cultural capital, proposing that students must negotiate a challenging balance whereby familial values are not generally accepted within the mainstream institution and, conversely, institutional or Western values adopted by students to succeed in institutions are not accepted when students return to the familial setting, leaving the student feeling isolated. The work of Kanu (2011) may serve as a

potential explanation for the cause of this conflict. Kanu (2011) claimed that Indigenous students often feel at odds with the cultural norms established in universities because they are either an amalgamation of many different Indigenous perspectives or Eurocentric, neither of which may represent a single student's understanding of the world.

Difficulty experienced by students in finding adequate role models to assist in the movement from one community to another was evident in the findings of Hardes (2006), the (2010) report from the ACCC and authorities on Indigenous education such as Battiste (2002), Kanu (2011) and Hare (2011). Therefore, including mentorship programs has become a feature in many transitions programs (ACCC, 2010). The University does have in place a mentoring program for Indigenous students, but participating students found it difficult to connect with on-campus mentors. Anne claimed that meeting with her assigned mentor who was Indigenous and in the Faculty of Nursing was a "waste of time." Anne was not interested in a friendship and wanted the mentor for a specific purpose, that is, to help strategize her way into and through the Faculty of Nursing. When the mentor was unable to do this, Anne moved on to find the information elsewhere.

The South: Physical

Toulouse (2011) defined the South or Physical aspect of the medicine wheel as the basic necessities, food, shelter, health and general well-being of an individual. One of the influences for Carol in returning to school was based in her ability to better meet the physical needs of her children:

> The job that I had, I mean it paid a lot of money, it was very good financially but, um it's also a lot of hours and a lot of time, so it was like 6 days a week, always evenings and weekends, and like I never saw the kids, the kids were shipped around from daycare, to babysitters…They still need me right, I found my son

> really struggled a lot with um, me being gone all the time… [now in school] I'm home, I mean I am very busy, school is busy but I am home with the kids, I notice like familywise they are a lot happier. I see them, I'm home when they get home, we spend the evenings [together] even if I'm doing homework, I'm just, it's just having me there.

Within the reviewed literature, examples were found that reflected the challenges for Indigenous women, in particular for completing higher education degrees, because of the absence of adequate child care (ACCC, 2010; Kitchen, et al., 2010). Carol indicated the delay in her return to university could be attributed to her children: "we started a family and so my education got pushed back". While Anne, who did not have children indicated her delayed entry at university was caused by her need to meet her own physical needs after being forced to leave home at an early age.

The scholarly literature indicated that a hybrid design would allow for greater completion rates for students (Donnelly, 2010; Means, Toyama, Murphy, Bakia, & Jones, 2009; Woltering, Herrier, Spitzer, & Spreckelson, 2009). Although it was found in this research, the hybrid component of the course was not heavily used. Jaggars (2011) explained that non-traditional students may withdraw from hybrid courses because they do not have the technology or the skill with the technology to complete the required tasks. This did not apply to the participants as all students indicated a level of comfort with the learning management system and technology. Older studies (Hodsworth & Dahlquist, 2004; Hulton, 2005) as well as a more recent meta-analysis of previous studies (Kawalilak, Wells, Connnell, & Beamer, 2012) suggested access to Internet and computers as problematic for Indigenous students particularly in remote communities. In this case, all students had computers with Internet access at home, and given the fact they

were all in an urban centre connectivity was reliable. For Mary, Carol and Anne the hybrid learning supports in the form of the course notes provided scaffolding for filtering and prioritizing face-to-face content. For these students the time required to access the recorded lectures when weighed against family commitments at home was the determining factor for decisions to use or not use the hybrid materials.

The West: Mental

In the mental sphere, defined in the literature review as the cerebral activities of a person, students cited conflicts with the order in which materials were presented. The first conflict students identified related to processing of information. Both Carol and Anne indicated the presentation of the course content was exactly the opposite of their own preferred learning style. Their preference was for information to be presented holistically and then deconstructed as opposed to the presentation of smaller pieces building up to the whole. In their discussions of Indigenous pedagogy, Kanu (2011) and Slee (2010) raised the same concerns about the disconnection between holistic learning approaches and the Eurocentric deductive approach to knowledge acquisition. Each participating student acknowledged a level of disconnect from her desired profession, nursing. They felt there should be greater ties to the nursing community, nurses and a more obvious relationship between the content of their courses (biology and nursing) and their future role in the community as practicing nurses. Carol commented: "You are getting a lot more theory than practice… what if I kill somebody…it's pretty important that when I walk out of here I better know something."

The personal relevance of the course content and the "important" knowledge to retain for future was a large concern for students who felt this was not being filtered appropriately. The desire for personal relevance has long been advocated by Indigenous

scholars who note that this issue is at odds with the Eurocentric approach to standardized learning progression (Battiste, 2002; Munroe, Borden, Orr, & Meader, 2014). Anne, the only student who did not report challenges in meaning-making from the course content, had previously studied similar content in a college program.

The North: Spiritual

The spiritual domain refers to all the thoughts, activities and rituals that connect a person to the world (Toulouse, 2011). Contrary to evidence from the literature (Barnhardt & Kawagley, 2005; CESC, 2003; Fleet & Kitson, 2009), student participants in this research did not explicitly identify or recognize a spiritual disconnect between Western education systems and Indigenous ways of knowing. This absence in the study data does not necessarily indicate that one did not exist in this case, but rather that the students were unable or unwilling to identify it. When these observations were discussed with the instructor in order to internally triangulate the data, she responded:

> High school is already so disconnected for many of the students…I've taught in isolated communities and there it is different, then you had [students who were] very culturally in touch and immersed and that is more the day to day life…in this cohort there is a mix of everything [backgrounds] but the bulk of the students are not in touch with their cultural roots.

The instructor's conclusion was evidenced in student comments as well. After using a word in the Ojibwe language, Anne stated: "I am trying to learn all these new words," indicating the depth of her disconnect to her heritage language. Students appeared to be distanced from traditional Indigenous languages and cultural activities; although they identified some disconnects that they felt stemmed from the bias of the Eurocentric presentation of course content, they did not explicitly identify this as a cultural

disconnect. When students were asked about the importance of an Elder in residence as part of the Eagle Lodge student support system, only one student identified her need to communicate with the Elder. All other participating students indicated this practice was foreign to them or something they had given up in their past. Students Carol, Anne and Mary indicated the importance of participating in cultural events on campus, such as Pow Wows and other events. However, as the term progressed they spent less time involved in these cultural events as the demands for their studies grew. Anne commented: "I got tired of going to meetings and waiting half an hour for everyone to show up; I am busy you know." This evidence supports suggestions from Battiste (2009) concerning the extent to which colonization has contributed to the erosion of students' Indigenous language, knowledge and culture, with the end result that they need to be re-educated in their own culture. Verna Kirkness (1999) has long identified this issue as a conflict of identity that, stems from colonization whereby Indigenous Peoples are left outside of their own and Western culture, stuck between both, alienated. Sister Dorothy Moore (2014), responding to the aims and strategies for educational reform as part of "The Red Road Project," reiterates the importance of re-learning and re-connecting with culture as critical to Indigenous students' future success.

Conclusion

Through the lens of the medicine wheel, students' personal experiences and challenges with PNT were discussed. It was apparent that, within PNT, the focus was on transitioning students into the Eurocentric paradigm of the Faculty of Nursing. Clashes occurred for students throughout the data collection period in relation to the priority the students placed on family, as well as the isolation many felt as they were forced to distance themselves from their families both physically and mentally by nature of the

transition to higher education. Participating students also felt conflicted about the emphases placed on certain types of knowledge and the ways in which it was presented, which led them to question both the value of the information and the pathway that was laid out for them by the institution.

Two of the three participating students successfully transitioned into nursing at the end of the academic year. When comparisons were made between the PNT and the scholarly literature the PNT although including many Indigenous supports, the approach may represent "add-ons" as critiqued by Walburg (2008) and Battiste (2002) rather than a true Two-Eyed Seeing approach.

Discussion of the Findings: Response to the Research Questions

In the following sections, each research question has been examined specifically. First, the impact of the course and program design on student persistence is discussed in relation to findings from the scholarly literature. Second, the role of community in this case as influenced by course design and student characteristics is analyzed. Third, the results for persistence in light of all factors within this case is discussed holistically as a greater understanding of the results from this case is explored against the information selected from the literature.

Impact of Program Design and Course Structure on Persistence

The first research question was designed to interrogate the impact of a hybrid model of learning on persistence decisions. At the outset of the research, the program director had indicated concern over the ability of the PNT program design to allow sufficient time for community development (L. Olsen, personal communication, August, 2011). The question was formulated to discover the attributes of the hybrid learning design that fosters community. The aim was to determine the impact hybrid learning had (if any) on

community membership and persistence decisions. However, student participants indicated during their interviews that the more relevant question was larger. Participants shared examples of the way in which the organizational structure beyond hybrid learning at both the program and course level had impacted their persistence decisions positively as well as negatively. Further, they identified four key areas of programming structure: 1) the role of hybrid learning for persistence decisions, 2) the role of other PNT supports, 3) the structure of the classroom experience and 4) the role of orientation weeks.

The role hybrid learning model on persistence decisions. Students indicated the hybrid learning design was generally not an important factor in persistence decisions, with one exception. Students repeatedly cited the importance of the course notes and practice tests as critical to their success. As Anne explained:

> We had our first lab today (second term) and we are all mixed, cohort and regular students. They just seemed so lost. I brought out my notes and my slides all printed out from my lectures and everyone was salivating; they were, like, you get notes, you get the lecture slides? I really had the sense that a lot of the students I was talking to were struggling and I felt so fortunate.

Each student used the course notes in a way that allowed them to personalize their learning and make face-to-face time more efficient. Anne regularly printed the notes before class to read and review, Carol used them to review after class or as a replacement for a missed class, while Mary used the printed slides to scaffold her note-taking during class. Rose and Ray (2011) suggested that blended learning has the potential to allow students to personalize their learning to a greater degree. In this case, students used the notes to design a self-directed flip class model. When the affordance of the course notes are examined against the F-L-I-P model proposed by the Flipped Learning Network

(FLN, 2014), their value became more apparent. The notes allowed students to pre-learn and follow-up on learning around their own time schedules and learning preferences, which are the concepts outlined in Flexible learning (F) and Learning culture (L) (FLN, 2014). Although the content was not intentionally selected for its value in assisting with the flip or the classroom content, the students' use of the notes did allow for greater depth of discussion and monitoring or progress by the instructor during face-to-face sessions (P). In all cases, students in the study indicated the lecture notes led to reduced frustrations in class by making it easier to keep pace with material in the context of what they considered to be a very steep learning curve in the biology courses. Although Holly and Dobson (2008) discussed the reduction of instrumentalism by students as being an advantage of blended learning design, in this case it was the facilitation of instrumentalism by making the access to content more efficient for students, which led to more positive persistence decisions.

The literature examining transitions supports rather than blended learning design suggested early intervention and scaffolding of learning as critical to student success (ACCC, 2010; Smith & Gottheil, 2011). Although the presentation of course notes on first appearance did not reflect "good learning design" when compared to the literature on blended learning by Orhan (2008), for the participants in this case the notes appeared to serve a useful purpose.

When qualifying "good learning design" for blended learning, the literature outlined the importance of community (Nimmer, 2009; Saltiel & Russo, 2001; Seifert & Mandzuk, 2006). Therefore, attempts were made to facilitate community within the hybrid design. Participants did not choose to engage in community through the online platform; the reasons may differ due to several factors. Through observations of their online activities

and the student interviews, it became apparent that items that did not offer direct and readily observable academic gains were not utilized by these students. Supports such as the lecture notes that offered immediate gains and made studying more efficient were the supports that students continued to use throughout the academic year regardless of their mandatory or optional nature. In other words, students demonstrated a preference for items that increased the efficiency of their learning.

From the perspective of persistence models, Berge and Huang's (2004) sustainable model appeared to be the most appropriate. This model was designed to examine adult learners' experiences; further literature in adult learning can also explain in more detail the students' non-response to discussion forum activity. Students seemed to be making a cost benefit analysis in relation to the amount of work needed to complete a task and the benefit obtained for that effort. In the case of writing posts to the discussion forum, the amount of work required when contrasted to participating in a tutorial or losing the 10% of marks allocated to the task, did not match. Knowles (1984) explained that adult learners return to school to obtain a specific goal, therefore items not related to this specific goal may be rejected.

The design or format of the community facilitation point within the LMS was flawed from both an adult learner and Indigenous learner perspective, which may also have contributed to the lack of uptake of the discussion forum in this case. The design of the discussion component was intended to increase flexibility by allowing for an alternative format for participation and for conversations to continue beyond the face-to-face time (Lim & Yoon, 2008; Rose & Ray, 2011; Rovai & Jordan, 2004). However, the platform choice may have been detrimental to participation. McAuley and Walton (2011) suggested that the LMS itself limits free discussion for adult Indigenous learners because

its hierarchical design and instructor-centric control of content may discourage students from participating. McAuley and Walton (2011) also suggested that increased participation in discussion occurred when the discussion was taken out of the LMS and held on another platform with a less hierarchal structure, although they too note that participants abandoned the online conversations as soon as the requirement for participation was removed.

Beyond structure, the nature of the dialogue in the form of questions seeded by the instructor, may have been alienating to students. Anne commented: “The discussion forum felt like more work.” In addition to the conflict between colonial versus Indigenous perspectives on knowledge sharing, McAuley and Walton (2011) suggested that as a cause for lack of uptake, the interpretation of the task itself may have been at fault. Wenger (1998) argued that communities of practice cannot be created, but must emerge spontaneously around a shared interest and, in this case, the shared interest was not well structured. The instructor-directed questions were intended to elicit talking points, but as Anne’s quote illustrated, they were interpreted as homework assignments. Garrison (2007), in describing the role of teacher presence in the Community of Inquiry framework, claimed the instructor plays an important role in assisting students’ integration into the community, facilitating the move beyond cognitive presence into social presence, and this too could begin to explain the students’ response to the forum. Teacher facilitation was limited to pre-determined discussion questions and this limited role was likely not enough to encourage participation.

Finally, the third dimension of hybrid support, the recorded lecture, went unused. Students observed that “the lectures are too long to listen to; it’s easier to get someone’s notes” (Carol).This may again be a reflection of students their strategizing use of time as

proposed in Berge and Huang's (2004) cost benefit analysis model, but may also be reflective of the course design. Although not specifically designed as a flipped classroom, the participating students used the online material in this way. When analyzed from the perspective of flipped classroom design, the recorded lectures were ineffective as they repeated the face-to-face content, rather than prepared students for further discussion.

Using the recently released F-L-I-P model for describing the pillars of flipped classroom, although allowing for F (flexible learning environment) to some degree, students did not realistically have the option of opting out of face-to-face classroom time. The recorded lectures also did not allow for students to actively engage with content (L), did not feed into further learning sessions (I), nor encouraged activities that would have lead the instructor to complete (P), collaborating or engaging with students.

The role of PNT program supports. The PNT specific supports consisted of smaller class sizes for key subjects (biology), mandatory tutorials and academic/personal counselling. Students could also access the broader Indigenous programming supports offered by the University such as cultural events, mentoring and Elder in residence. All participants indicated they were grateful for all three of the PNT supports at the beginning of the year. By the end of the year, although the students remained unanimous about the value of the smaller cohort class size, only Carol still wanted and needed the counselling support. The other two students (Mary and Anne) both began to reject counselling supports at the mid-term because they claimed to have effective strategies to move forward academically and personally without outside intervention.

Only one student (Mary) found the tutorial useful. Students' desire to leave tutorial supports fell into two categories: Anne felt she no longer needed the tutorial because she

was able to study more effectively on her own, while Carol had reached a level of frustration that made tutorials feel pointless and frustrating.

The effectiveness of small class sizes, tutoring and counseling was described in the literature on transitions as effective for increasing success rates in programs (ACCC, 2010; Smith & Gottheil, 2011; Swail, Redd & Perna, 2003). Contrary to Munro (2012), student participants in the study did not view the supports as "benevolent charity" but were appreciative of the seemingly advantaged position they had within the University regardless of whether they felt they had "outgrown" them or continued to need them. Contrary to the literature concerning Two-Eyed Seeing and the Family Retention Model of HeavyRunner and DeCelles (2002), supports based around traditional wisdom, for example, the Elder in Residence, were not used. As discussed in the Chapter Four, this may have been a symptom of loss of Indigenous identity that many students felt coming from urban settings and colonial school environments. However, it may also be more benign, signaling acceptance of the tradition of the nursing program and represent, as Tinto (1975) suggests, student integration within the University, while still retaining the separation of the personal/spiritual aspects of life.

The role of course structure. Applying the Garrison, Anderson and Archer (2000) Community of Inquiry Model, this research indicated that students' critical interaction point was the teaching presence. Teaching presence is defined as course design and organization, facilitated discourse and direct instruction by the instructor (Anderson, Rourke, Garrison, & Archer, 2001). Although not measured quantitatively in this case, student interview data evidenced the importance of these three aspects of teaching presence in their evaluation of factors impacting persistence. By the third interview, all three of the participating students spoke at length about the influence of course structure

on their persistence decisions. Mary's concerns were focused on a more rigid organization of the course: "If the instructor is organized, then you can be organized." Carol was disappointed both in the way the material was presented and the expectations of "average" marks. She felt the material was too granular to be useful in her future in nursing and also not conducive to internalization, citing the expectation of 60% as a "good" mark by the instructor as an indication of how wrong the course structure was. Anne reiterated these remarks, but was less concerned with the presentation format as she was with the content's relevance for future. In this case, students relied on the instructor as a model for learning, but also critically questioned structures that did not match their expectations.

The importance of orientation support. Integration in the university environment was facilitated predominantly through two orientation events for students: one specific to Indigenous programming entrants and the second provided to the wider university community. Research participants applied the same cost benefit analysis to the value of the orientation events as was observed in other program scaffolding items. Rather than reassuring, these students found the overlap between the University's general orientation and the Indigenous programming orientation frustrating. They felt resistant to participating in two weeks of orientation. Anne and Carol, the older students within the group, were also frustrated by the longer first-year orientation because as mature students they were not interested in many of the social and community spirit-building activities. They wanted "useful" information.

Knowles (1974) provided an explanation for the students' frustrations with the orientation session. These sessions were generally designed around social integration activities, while adult learners are highly goal-oriented and, although they are eager to

participate in university activities and events, they are task-oriented. By the same rationale, learning to use the Writing Centre or the expedited process of obtaining IDs were observed by students as successful aspects of orientation.

The first few weeks of navigation within the University environment were identified as a second major frustration leading to self-doubt. Students observed the diverse approaches used by various instructors to organize classes and discrepancies related to the delivery of material among classes as negatively impacting persistence decisions. The discrepancies observed included: different instructors using different online platforms for similar tasks (e.g., the LMS and registration system were both used for the distribution of syllabi), a large number of platforms and inconsistencies in how much information was distributed on each platform. Once students learned which systems were used by which instructor and for what purpose, frustrations were reduced. The "steep learning curve" cited by students upon university entry related not only to the content of classes but the orientation to the environment as a whole. Edward (2003) claimed that inadequate provision of information can create a lasting impression of institutional incompetence in the minds of new students; in this case, the participating students' response to the initial few weeks was to take a skeptical posture towards the University as a whole.

Although students were exposed to the larger University and nursing during this orientation period through sessions with visiting professors, they did not identify these experiences as important during orientation. This contradicted research presented by Anonsen et al. (2008) and Kulig et al. (2010). It is possible that students did not identify these items as important due to the presentation structure and the lack of follow-up within the general program. Alternatively, the students may have missed the significance of these interactions due to general confusion at orientation or information over-load

(Edward, 2003). That these students did attempt to seek out greater connections with nursing independently confirms the need for relevant career pathway presentation at early stages of program completion as Anonsen et al. and Kulig et al. suggested, but it appears the compressed introduction in orientation was not sufficient in length or structure to address the longer term needs of the students.

Factors that Influence Community Development

The second question explored community development and its role in influencing persistence decisions. From the data, it was evident that three key factors impacted community development for the students: 1) the transitional nature of the cohort, 2) the physical spaces available and 3) the student-teacher relationship. The hybrid learning platform was designed to facilitate community engagement, but did not contribute to any form of community development. Each of these three factors will be examined through sharing of evidence from the study and in discussion of the relevant literature.

The transitional nature of the cohort. Knowles (1970) suggested that a cohort allows students the opportunity to form connections as they transition into new environments and leave others. In this case, students did not connect to the cohort. This is lack of connection-forming may be due to the fact that not all students entered the cohort at the same time. Carol, Anne and Mary entered the University independently a term before the official start date of September, 2013. Mary will be returning to the cohort in the fall of 2014 and, as these students discovered, this is the case for many of the cohort members. Therefore, the “first year” cohort may include students in their first, second or more year of PNT participation. Students did not feel unified as a group starting and ending together and did not really bond to the cohort in the manner suggested by Knowles (1970).

In addition, a well-structured cohort according to Kegan (1994) must meet a person's needs by recognizing who they are without an urgent anticipation of change. In this case, it appears students' desire to enter nursing created an urgent anticipation of change that permeated the culture of the cohort and changed it into a transitional space rather than a stable "holding" place. However, in parallel to the evidence supplied by Karp, Hughes and O'Gara (2008), this loose connection to the cohort is not necessarily an indication of lack of integration when Tinto's (1975) model is applied to describe the community. Rather, the loose connection demonstrated a different approach to community formation by adult learners who must negotiate strong commitments to relationships established outside of the University. Like the participants in Karp et. al (2008), the participants in this case used the community for information sharing through classroom events and may have concurrently been building community through academic and social integration factors as described in Tinto's (1975) model. It may be too early to determine if this community impacts persistence, however; Karp et al. (2008) noted that the true value of these relationships for persistence were not apparent until the second year of study for the participants in their study.

Finding a safe place to land. The University was cited by Rebecca, Mary, Carol and Anne as intimidating, loud and confusing. Initially all students interviewed found a sanctuary of sorts at the Eagle Lodge. The students developed a connection to the larger University community based on the attributes of Eagle Lodge. The advantages of Eagle Lodge were diverse: it was quieter (Anne), offered resources (Carol), a place to meet other Indigenous students (Mary) and offered a friendly welcoming atmosphere (Rebecca). Initially the physical space served to scale down the larger institutional experience. The resource accessibility offered scaffolding to meet physical, mental and

cognitive needs, and the promotion of Indigenous culture and values offered a connection point for Indigenous students and faculty beyond the small course-based cohort. For the same reasons, although the community of practice (CoP) failed to form in the online platform, it began to emerge at Eagle Lodge. Students connected with one another around the shared resources, such as the kitchen and computers. They also were more inclined to connect with others in Eagle Lodge because of the informal nature of conversations and the safety and scale of the environment. Although not a fully formed CoP where students regularly worked with one another or developed inter-dependence on one another, the security and permanence of place offered evidence of the sprouts of community formation. This is consistent with Wenger (1998), who argued that CoPs cannot be formed but rather cultivated. In this case, the provision of the shared identifiable domain as a space for Indigenous students and practice served as a gathering space or soil, where students felt safe to begin to put down roots for the community.

The student-teacher relationship. Tinto (1975) claimed that integration into the university community begins in the classroom, as this is the setting for the learners' primary contact with the institution. As discussed previously, this assumption holds true for participants in this case, although the importance of social integration with cohort members may appear minimal due to the length of the data collection period. Social and academic integration through relationship building with the instructor was identified as important within this case. Both the social network analysis and the interview data demonstrated that within the relationship matrix what mattered to the student was the one with the instructor. However, some instructors were more successful in building this relationship and, by extension, community, than others. Zapf, Bastien, Carrierre and Pelech (2000) indicated that within Indigenous communities relationships are based on

non-hierarchal relationship-building. Data from the student interviews in this case provided evidence for this claim as student participants cited disappointment when relationships with some faculty and staff were more formalized. For example, in describing non-cohort class instructors, Anne observed: “They seem really busy, they are approachable and you can ask them questions related to assignments, but other stuff…I would never feel comfortable.” Rovai (2003) and Kassworm (2003) also indicated the relationship-building focus for adult learners is primarily concentrated around the student-teacher relationship rather than student-student relationships.

Conditions to Support Persistence

The final research question examined the influences on persistence decision-making processes by the students. The question sought to determine conditions within the community that were deemed by students as critical to influencing both positive and negative persistence decisions. The three themes that emerged were predominantly related to the development of self-efficacy skills: 1) confidence development through academic success, 2) successful problem resolution strategies and 3) sufficient processing time.

Confidence development through academic success. Rovai (2003) outlined the need for instruction to systematically scaffold learning for students in order to allow non-traditional learners to increase confidence, which leads to increased self-esteem and willingness to participate in further learning. Within this case study, the students demonstrated high levels of anxiety and self-doubt upon University entry. December appeared to be a peak time of anxiety for the students as they faced exams and formal feedback on their performance. However, remembering previous successes earlier in the term helped to bolster confidence; Anne claimed: “I’m getting the marks back, the

papers, the mid-terms and that just said, yah OK, all that effort paid off for you, so you are doing something right, just keep moving in that direction." Toulouse (2011) reiterated the importance of scaffolding for self-esteem building for Indigenous learners and considered scaffolding to be a key factor for school success. Battiste (2013) framed the argument in terms of identity rather than confidence or self-efficacy, however, but the two concepts are intrinsically linked when the student is viewed holistically through the lens of the medicine wheel rather than specifically as a learner of content. In this case study, the evidence demonstrated that supporting students' development in one aspect of the medicine wheel, the west, led to more positive persistence decisions by allowing students to build confidence academically. However, Indigenous scholars such as Toulouse (2007) would argue that supporting one aspect of the medicine wheel is not enough because of the importance of achieving and maintaining balance in all four aspects.

Transitions programs are often critiqued for a having a gap-filling approach to developing study skills (Munro, 2012). Using the medicine wheel as a measure of student identity and development, the foundation of this critique becomes clearer. If persistence is improved through confidence building, then something more than academic scaffolding is needed. For example, Anonson, Desjarlais, Nixon, Whiteman and Bird (2008) reported that addition of holistic supports specific to Indigenous identity, self-confidence and voice finding have been critical to the improved persistence of pre-nursing students at a western Canadian university.

Development of strategies for overcoming problems. As stress levels peaked pre-exam time, the participating students adopted various stress management positions. Carol began to clean her house: "The messy house is driving me crazy; maybe that is why I feel

so chaotic, cause that's chaotic." Mary made a schedule to chunk her time: "I'm not stressed; I'm tired, but I know it's all going to be over soon." Carol turned to the academic counsellor for support and guidance. As discussed previously Tinto (1975) described the role of the course instructor as a connection point for student integration. In this case, the students turned to the instructor for content support, while other stressors were successfully managed with the assistance of the academic counsellor. The counsellor position served as another scaffolding support, which students needed to use less as they became more confident in their own strategies. As students attempted to integrate or cope with the demands of "the way it works around here," they faced challenges due to competing alliances and ways of working.

Martin (2005) suggested that the provision of Indigenous cultural supports would improve the alienation many Indigenous students feel upon university entry; in this case, however, rather than turning to an Elder or traditional wisdom for support, the students preferred the assistance of the academic counsellor or relied on typical Eurocentric approaches to stress management and study skills. Significantly, however, the academic counsellor had long experience in Indigenous communities and was able to share wisdom from both worlds (i.e., was able to see with two eyes) and this position may have assisted the students to better reconcile their own approaches with those mandated by the University structures that caused the most tension.

Sufficient processing time. As students explained their strategies for moving forward, it became further evident that their plans were different from those laid out by the University. Student participants outlined the need to take more time to complete courses. They appreciated the supports that contained "built-in study time," which assisted them to increase their engagement with content early in the PNT. However, the

student participants were also critical of the number of courses and speed of content being presented. Because of their status as adult learners, these students did not possess the level of personal time typical of first-year students; carrying a first-year student load, regardless of job and marital status, appeared challenging. Unfortunately, there is little evidence available to confirm or refute the importance of program design to ensure sufficient processing time as it relates to pathway development for transitions programming. Despite meta-analysis of over 100 studies, Valentine, Hirscy, Bremer, Novillo, Castellano and Banister (2009) were not able to identify the mechanisms of program design leading to improved persistence or success in transitions programming. This finding parallels the Anonson et al. (2008) study; research in transitions programs focuses on holistic approaches to student development rather than a more mundane question of course loading and balance, which as reported by students in this case has a dramatic impact on persistence.

Implications

The purpose of this research was to provide an understanding of Indigenous students' persistence decision-making processes. The program and course structures were examined along with the role of community and technology in facilitating positive persistence decisions. The following section will discuss implications of the results of this case for higher education program design, instructors and students.

Program Implications

Three important implications for transitions program design arose from the evidence from this case study. First, the evidence of this study, supported by discussions of the literature (ACCC, 2010; Toulouse, 2011; Timmons, 2009) surrounding adult learners and Indigenous learners, suggested the need for a learning model more akin to an

apprenticeship that would allow students to connect with the profession holistically to add both relevance and context to learning. As an example, Baker (2010) illustrated the importance of opportunities for timely feedback on clinical performance as an important factor in the retention of nursing students.

Second, evidence from this case study indicated that reduced institutional size, through the facilitation of smaller cohort groups, encouraged a greater one-to-one contact with the instructor and also reduced some of the anxiety felt by students. This finding is supported by Knowles (1970) who suggested that the cohort is an important structure in easing transition. The reduction in class size through the adoption of cohorts has had costly budget implications, however, but the evidence indicated that the cohort was one of the strengths of the PNT.

Third, as suggested by Battiste and Henderson (2009) in their discussions of Indigenous identity, the establishment of culturally safe spaces, either physically through buildings or mentally through the provision of key persons in position of advocacy for students, assists students in persisting through the disruption of the first year transition.

Instructors

Evidence from the study demonstrated the critical role of the instructor in students' persistence decision-making process. Reiterating the findings of Zapf et al. (2000). The key implication for instructors to consider is the expectation of a non-hierarchical student-teacher relationship. The changing nature of this relationship would impact both course content delivery and design in face-to-face and online environments, for example, by providing time in course design for student-centred teaching approaches through a classroom environment that more closely resembles Wenger's (1998) CoP model. Alternatively, deconstructing the formal Western approach to the student-teacher

relationship by adopting a coaching relationship model suggested by Smith and Gottheil (2011) would allow for a better relationship between student and instructor.

Students

For students, the implications of this research are twofold: 1) negotiation of the two worlds of home and academia and 2) the development of identity/self-esteem. Students who were better able to negotiate the conflicting demands of the home and academic worlds were better able to persist. Mentors or academic counsellors who can provide advice on how to manage conflicts proved both in this case and in the literature (ACCC, 2010; Wilson, Sanner, & McAllister, 2010) to be important initial supports. Students who over the course of the year grew in confidence and developed a strong "student/nurse" identity felt more positive about their persistence choices. Intentionally building-in opportunities for success within the scaffolding of course structure is one approach as suggested by (ACCC, 2010), while a second approach for student confidence and identity development could be fostered through a "friendlier" student-teacher relationship, such as the coaching model (Smith & Gottheil, 2011) previously discussed.

Directions for Future Research

The research study has explored the factors impacting persistence decisions within a specific Indigenous pre-nursing program. The impact of organizational structure, including hybrid learning, the role of community and Indigenous ways of knowing were explored as factors potentially impacting students' persistence decisions. From the study, what has become evident is that further research should be conducted concerning transitions program design, the role of technology and alternative definitions of persistence.

Program Design

The evidence of tribal college successes in incorporating a more Indigenous approach to education (HeavyRunner & DeCelles, 2002) was not present in the case examined. A future study that allowed for greater incorporation of Indigenous ways of knowing within the courses and other program structures might yield improved persistence results. Participatory action research in partnership with Indigenous communities would provide an opportunity to study implementation of program design focused on Indigenous knowledge structures and student persistence.

Accordingly, potential future research questions would include the following:

1. What effect does a program based on Indigenous ways of knowing have on participants' persistence decisions?
2. To what extent can Indigenous approaches to science knowledge and an emphasis on two-eyed seeing increase students' persistence?
3. How does regular communication with Elders influence students' persistence decision-making processes?

The Role of Technology

Greater understanding is needed about the perceptions of Indigenous students towards the way in which technology can be used to better support their learning. Understanding the role of technology from a student's perspective will assist university administrators, faculty and staff in future design of online environments. A narrative inquiry that facilitated the students' telling of their stories in relation to experiences with technology could provide evidence towards answering the following questions:

1. In what ways can technology-enabled learning environments be designed to support Indigenous students?

2. To what degree would technology supports offered outside of the university mandated LMS impact persistence decisions?
3. What is the role of mobile learning and social networking in transitions programs?

Alternative Views of Persistence/Success

This case study research did not examine persistence beyond one year. Success of persistence efforts was measured by entrance into the nursing program. A longitudinal study examining where students go and what they do after learning the PNT regardless of whether they graduate as nurses or leave the PNT early would be valuable. Examining where students go and how they apply (or not) that educational experience to their future contexts would provide a larger body of evidence by which to evaluate transitions programming. The following questions could be used to frame the inquiry:

1. To what degree does experience with the transitions programming lead to greater self- efficacy in future educational contexts?
2. To what degree are students entering and leaving higher education as a function of instrumentalism for life goals that are not related to graduation?
3. What does the persistence trajectory look like for female Indigenous students?

Conclusion

This research study has identified factors that impacted Indigenous students' persistence decisions in a first year pre-nursing program. It has also explored the role of hybrid learning and community membership in persistence decision-making processes. Findings indicated that persistence was affected by program structures such as technology supports, cohorts and course organization. Persistence decisions were also determined by student confidence and self-esteem. PNT community membership played a minor role in

persistence decisions with the exception of the student-teacher relationship. Further questions and research opportunities were identified as there remains much more to be explored regarding alternative views of persistence, the role of technology supports and Indigenous approaches to learning in higher education.

Clarity about the complexities of community membership decisions by non-traditional students evolved through this research study and evidence about the applicability of traditional models of persistence for non-traditional students was provided. The role of technology in supporting transitions programming was also further defined. Of critical importance is the holistic evidence that indicated Indigenous student persistence clearly cannot be viewed strictly from academic and social intervention perspectives. For transitions programs to be effective, further critical analysis of the impact of Eurocentric bias in educational design and consideration of the whole person rather than the student is needed. The process of transitioning as the name implies is moving from one culture to another. The “two-eyed seeing” of Elder Albert Marshall has yet to be achieved, but further research in this area would benefit both Indigenous and non-Indigenous students entering higher education.

References

Aboriginal Affairs and Northern Development Canada. (2012). *Aboriginal demography—Population, household and family projections 2001–2026* [QS-7093-000-BB-A1]. Retrieved from http://www.aadnc-aandc.gc.ca

Allan, I. E., & Seaman, J. (2006). *Making the grade: Online education in the United States.* Needham, MA: Sloan Consortium.

Allan, I. E., Seaman, J., & Garrett, R. (2007). *Blending in: The extent and promise of blended education in the United States.* Needham, MA: Sloan Consortium.

Allan, I. E., Seaman, J., & Garrett, R. (2010). *Class differences: Online education in the United States.* Needham, MA: Sloan Consortium.

Ambler, M. (2004). Distance education comes home. *Tribal College Journal, 15*(4), 8–9.

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teacher presence in a computer conferencing context. *Journal of Asynchronous Learning Networks, 5*(2), 1–17.

Anonson, J. M., Desjarlais, J., Nixon, J., Whiteman, L., & Bird, A. (2008). Strategies to support recruitment and retention of First Nations youth in baccalaureate nursing programs in Saskatchewan, Canada. *Journal of Transcultural Nursing, 19*(3), 274–283.

Arbough, J. B., Cleaveland-Innes, M. Diaz, S. R., Garrison, D. R., Ice, R., Ricardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the community of inquiry framework using multi-institutional sample. *The Internet and Higher Education, 11*(4), 133–136.

Assembly of First Nations. (2012). *Supporting First Nations learners transitioning to post-secondary, final report*. Retrieved from http://www.afn.ca/uploads/files/education2/postsecondarytransitionsreport.pdf

Association of Canadian Community Colleges. (2010). *Colleges serving Aboriginal learners and communities: 2010 environmental scan*. Ottawa, ON: Association of Canadian Community Colleges.

Astin, A. W. (1984). Student involvement: A developmental theory for higher education, *Journal of College Student Personnel*, 25, 297–308.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco, CA: Jossey Bass.

Ayala, J. S. (2009). Blended learning as a new approach to social work education. *Journal of Social Work Education, 45*(2), 277–88.

Baek, E. O. (2009). Creating a learning community to increase learners' ownership. In G. Siemens & C. Fulford (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2009* (pp. 2505–2509). Chesapeake, VA: AACE.

Baker, B. H. (2010). Faculty ratings of retention strategies for minority nursing students. *Nursing Education Perspectives, 31*(1) 216–20.

Barab, S. Schatz, S., & Scheckler, R. (2009). Using activity theory to conceptualize online community and using online community to conceptualize activity theory. *Mind, Culture and Activity, 11*(1), 25–47.

Barnard, D. (2011). *Residential school apology to the Truth and Reconciliation Commission.* Winnipeg, MB: University of Manitoba.

Barnhardt, R., & Kawagley, A. O. (2005). Indigenous knowledge systems/Alaska native ways of knowing. *Anthropology and Education Quarterly, 36* (1), 8–23.

Barnhardt, C. (1994). Life on the other side: Native student survival in a university world. *Peabody Journal of Education, 69,* 115–139.

Bartlett, C., Marshall, M., & Marshall, A. (2007). *Integrative science: Enabling concepts within a journey guided by trees holding hands and two-eyed seeing.* Sydney, NS: Institute for Integrative Science and Health, Cape Breton University.

Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-eyed seeing and other lessons learned within a co-learning journey of bringing together Indigenous and mainstream knowledge and ways of knowing. *Journal of Environmental Studies and Sciences, (3)*4, 331–340.

Barton, S. S. (2004). Narrative inquiry: Locating Aboriginal epistemology in a relational methodology. *Methodological Issues in Nursing Research 45*(5), 519–526.

Battiste, M. (2002). *Indigenous knowledge and pedagogy in First Nation's education: A literature review with recommendations.* Prepared for the Minister's National Working Group on Education. Canada: Apamuwek Institute.

Bastien, B. (2004). *Blackfoot ways of knowing*. Calgary, AB: University of Calgary Press.

Battiste, M. (2000). *Reclaiming indigenous voice and vision*. Vancouver, BC: UBC Press.

Battiste, M. (2005). *State of Aboriginal learning background paper for the National Dialogue on Aboriginal Learning.* Saskatoon, SK: Canadian Council on Learning.

Battiste, B. (2013). *Decolonizing education: Nourishing the learning spirit.* Saskatoon, SK: Purich Publishing Ltd.

Battiste, M., & Henderson, J. Y. (2009). Naturalizing Indigenous knowledge in Eurocentric education. *Canadian Journal of Native Education, 32*(1), 5–18, 129–130.

Bean, J. P., & Metzner, B. S. (1985). A conceptual model of non-traditional undergraduate student attrition. *Review of Educational Research, 55*(4), 485–540.

Beard, L. A., Harper, C., & Riley, G. (2004). Online versus on-campus instruction: student attitudes and perceptions. *TechTrends, 48*(6), 29–31.

Bell, D. (2004). *Sharing our success: Ten case studies in Aboriginal learning.* Kelowna, BC: Society of the Advancement of Excellence in Education.

Berge, Z. L., & Huang, Y. (2004). A model for sustainable student retention: A holistic perspective on the student dropout problem with special attention to e-learning. *DEOSNEWS, 5* Retrieved from http://www.ed.psu.edu/acsde/deos/deosnews/deosnews13_5.pdf

Berger, J., & Lyon, S. (2005). Past to present: A historical look at retention. In A. Siedman (Ed.), *College student retention: Formula for student success* (pp. 1–29). Westport, CT: American Council on Education/Praeger.

Bennett, S., & Marsh, D. (2003). Widening participation and e-learning: Meeting the challenge within a foundation degree. *Widening Participation and Lifelong learning 5*(3), 7–19.

Bloomberg, L. D., & Volpe, M. (2008). *Completing your qualitative dissertation: A roadmap from beginning to end*. London: Sage.

Borgatti, S. P., Everett, M. G., & Freeman, L. C. (2002). *UCINET for Windows: Software for social network analysis.* Harvard: Analytic Technologies.

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for sociology in education* (pp. 241–258). New York: Greenwood.

Braxton, J. M. (2008). Towards a scholarship of practice centered on college student retention. *New Directions for Teaching and Learning, 2008*(115), 101–112.

Braxton, J., & Hirschy, A. (2005). Theoretical developments in the study of college student departure. In A. Seidman (Ed.), *College student retention: Formula for student success* (pp 61–87). Westport, CT: American Council on Education/Praeger.

Cajete, G. A., & Pueblo, S. C. (2010). Contemporary Indigenous education: A nature-centered American Indian philosophy for a 21st century world. *Futures, 42*, 1126–1132.

Campbell, M., Verenikina, I., & Herrington, A. (2009). Intersection of trajectories: A newcomer in a community of practice. *Journal of Workplace Learning, 21*(8), 647–657.

Canadian Education Statistics Council. (2003). *Education indicators in Canada: Report of the Pan-Canadian Education Indicators Program.* Toronto, ON: Canadian Education Statistics Council.

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada. (2010, December). *Tri-Council policy statement: Ethical conduct for research involving humans*. Ottawa, ON: Interagency Secretariat on Research Ethics.

Canadian Royal Commission on Aboriginal Peoples (1996). *Report of the royal commission on Aboriginal people.* Ottawa, ON: Canada.

Carjuzaa, J., & Ruff, R. G. (2010). When Western epistemology and an Indigenous worldview meet: Culturally responsive assessment in practice. *Journal of the Scholarship of Teaching and Learning, 10*(1), 68–79.

Chilisa, B. (2012). *Indigenous research methodologies.* London: Sage.

Conole, G., & Culver, J. (2010). The design of cloudworks: Applying social networking practice to foster the exchange of learning and teaching ideas and designs. *Computers in Education, 54*, 679–672.

Conole, G., Galley,R., & Culver, J. (2011). Frameworks for understanding the nature of interactions, networking and community in a social networking site for academic practice. *The International Review of Research in Open and Distance Learning, 13*(3). Retrieved from http://www.irrodl.org/index.php/irrodl

Coole, H., & Watts, M. (2009). Communal e-learning styles in the online classroom. *Research in Education, 82*(Nov), 13–27.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). London: Sage.

De Laat, M. (2006). *Networked learning*. Apeldoorn, NL: Politie Academie.

De Laat, M. F., Laly, V., Lipponon, L., & Simons, P. R. J. (2007). Patterns of interaction in a networked learning community: Squaring the circle. *International Journal of Computer-Supported Collaborative Learning*. Retrieved from *http://*ijcscl.org/_preprints/.../delaat_lally_lipponen_simons_2_1.pdf

Denzin, N., Lincoln, Y., & Smith, L. (2008). *Handbook of critical and Indigenous methodologies.* London: Sage.

Di Ramio, D., & Wolverton, M. (2006). Integrating learning communities and distance education: Possibility or pipedream? *Innovative Higher Education, 31*(2), 99–113.

Donnelly, R. (2010). Harmonizing technology with interaction in blended problem-based learning. *Computers & Education, 33*(3), 381–413.

du Plessis, M. (2008). The strategic drivers and objectives of communities of practice as vehicles for knowledge management in small and medium enterprises. *International Journal of Information management, 28*(1), 61–67.

Edward, N. (2003). First impressions last: An innovative approach to induction. *Active learning in Higher Education, 4*(3), 226–242.

Edwards, A. (2005). Let's get beyond community and practice: The many meanings of learning by participating. *The Curriculum Journal, 16*(1), 49–65.

Engeström, Y. (1987). *Learning by expanding*. Helsinki: Orienta-Konsultit Oy.

Engeström, Y., Punamäki-Gitai, R. L., & Miettinen, R. (1999). *Perspectives on Activity Theory*. Cambridge, MA: Cambridge University Press.

Fleet, A., & Kitson, R., (2009). Rethinking assessment in an Indigenous specific program. *The Alberta Journal of Educational Research, 55*(3), 397–413.

Fleet, A., Wechmann, K., & Whiteworth, R. (2012). Professional pathways of Aboriginal childhood teachers: Intersections of Indigeneity and complexity. *Australian Journal of Teacher Education, 37*(9), 128–143. Retrieved from http://dx.doi.org/10.14221/ajte.2012v37n9.7.

Flipped Learning Network. (2014). The four pillars of F-L-I-P. Retrieved from http://flippedlearning.org/cms/lib07/.../46/FLIP_handout_FNL_Web.pdf

Friesen, J. W., & Friesen, V. L. (2005). *First Nations in the twenty-first century*. Calgary: Detselig Enterprises Ltd.

Fuller, A., Hodkinson, H., Hodkinson, P., & Unwin, L. (2005). Learning as peripheral participation in communities of practice: A reassessment of key concepts in workplace learning. *British Educational Research Journal*, *31*(1), 49–68.

Garrison, J. (2001). An introduction to Dewey's theory of functional "trans-action": An alternative paradigm for activity theory. *Mind, Culture, and Activity*, *8*, 275–296.

Garrison, D. R. (2007). Online community of inquiry review: Social, cognitive and teaching presence issues. *Journal of Asynchronous Learning Networks*, *11*(1), 61–72.

Garrison, D. R. (2011). *E-learning in the 21st century: A framework for research and practice* (2nd ed.). New York: Routledge.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education*, *2*(2–3), 87–105.

Gerber, M., Grund, S., & Grote, G. (2008). Distributed collaboration activities in a blended learning scenario and the effects on learning performance. *Journal of Computer Assisted Learning*, *24*(3), 232–44.

Giroux, H. (2011). *On critical pedagogy.* New York: Continuum.

Gold, S. (2011). *Aboriginal student experience at the University of Alberta*.(Unpublished masters' thesis). University of Alberta, Edmonton.

Goos, M., & Bennison, A. (2008). Surveying the technology landscape: Teachers' use of technology in secondary mathematics classrooms. *Mathematics Education Research Journal*, *20*(3), 102–130.

Gorman, W. (1999). Canadian Native students and inequitable learning. *Canadian Social Studies*, *33*, 114–116.

Gregory, D., Pijl-Zieber, E. M., Barsky, J., & Daniels, M. (2008). Aboriginal nursing education in Canada: An update. *The Canadian Nurse, 104*(4), 24–28.

Gruber, S., & Colevin, G. (2009). Distance education for Aboriginal communities in Canada: Past experience and future potential. *American Journal of Distance Education, 9*(3), 48–6.

Guillory, M., & Wolverton, M. (2008). It's about family: Native American student persistence in higher education. *The Journal of Higher Education, 79*(1), 58–87.

Haggan, N., Brignall, C., Peacock, B., & Daniel, R. (2002). Education for Aboriginal fisheries science and ecosystem management. *Fisheries Centre Research Reports, 10*(6). Vancouver, BC: Fisheries Centre, University of British Columbia.

Hatcher, A. (2012). Building cultural bridges with Aboriginal learners and their 'classmates' for transformative environmental education. *Journal of Environmental Studies and Sciences, 2*(4), 346–356. DOI 10.1007/s13412-012-0088-6.

Hardes, J. (2006). Retention of Aboriginal students in postsecondary education. *Alberta Counselor, 29*(1), 28–33.

Hare, J. (2011). Indigenous knowledge in education. In O. Dickason & D. Long (Eds.), *Visions of the Heart* (3rd ed.) (pp. 90–112). Don Mills: Oxford University Press.

Harris, P., Connolly, J., & Feeney, J. (2009). Blended learning: Overview and recommendations for successful implementation. *Industrial and Commercial Training, 41*(3), 155–163.

Heaton-Shrestha, C., May, S., & Burke, L. (2009). Student retention in higher education: What role for virtual learning environments? *Journal of Further & Higher Education, 33*(1), 83–92.

HeavyRunner, I., & DeCelles, R. (2002). Family education model: Meeting the student retention challenge. *Journal of American Indian Education, 41*(2), 29–37.

Herreid, C., Schiller, K., Herreid, F., & Wright, C. (2014). A chat with the Survey Monkey: Case studies and the flipped classroom. *Journal of College Science Teaching, 44*(1), 75–80.

Hilberg, R. S., & Tharp, R. G. (2002). *Theoretical perspectives, research findings, and classroom implications of the learning styles of American Indian and Alaska Native students.* UC Berkeley, CA: Center for Research on Education, Diversity and Excellence. Retrieved from http://escholarship.org/uc/item/49v3p55m

Holdsworth, J. M., & Dahlquist, J. (2004). *Tribal community colleges and online distance education: Technology and tradition meet on three Midwest campuses*. Retrieved from http://www.mhec.org/mhecwww/pdfs/csccpaper.pdf

Holley, D., & Dobson, C. (2008). Encouraging student engagement in a blended learning environment: The use of contemporary learning spaces. *Learning, Media, & Technology, 33*(2), 139–50.

Holmes, D. (2006). *Redressing the balance: Canadian university programs in support of Aboriginal students.* Ottawa, ON: Association of Universities and Colleges of Canada. Retrieved from http://www.aucc.ca/_pdf/english/reports/2006/programs_aboriginal_students_e.pdf

Hughes, G. (2007). Using blended learning to increase learner support and improve retention. *Teaching in Higher Education, 12*(3), 103–110.

Hulton, D. (2005). Aboriginal nursing students and distance technology in northern Manitoba. *The Aboriginal Nurse, 20*(1), 13.

Jaggars, S. (2011). Online learning: Does it help low-income and underprepared students? *(Community College Research Center Working Paper No. 26, Assessment of Evidence Series).* New York: Columbia University.

Johnson, L., Becker, S., Estrada, V., & Freeman, A. (2014). *Horizon report: 2014 higher education.* Austin, TX: New Media Consortium.

Johnson, N. F., MacDonald, D., & Brabazon, T. (2008). Rage against the machine? Symbolic violence in e-learning supported by tertiary education. *E-learning, 5*(3), 275–283.

Joo, Y. J., Lim, K. Y., & Kim, E. K. (2011). Online university students' satisfaction and persistence: Examining perceived level of presence, usefulness and ease of use as predictors in a structural model. *Computers & Education*, *57*, 1654–1664.

Kanes, C., & Lerman, S. (2008). Analyzing concepts of community of practice. *New Directions for Situated Cognition in Mathematics Education, 45*, 303–328.

Kanu, Y. (2011). *Integrating Aboriginal perspectives into the school curriculum*. Toronto: University of Toronto Press.

Karp, M., Hughes, K., & O'Gara, L. (2008). *An exploration of Tinto's integration framework for community college students. (Community College Research Center Working Paper No. 12).* New York: Columbia University.

Kassworm, C. (2003). Adult meaning making in the undergraduate classroom. *Adult Education Quarterly, 53*(2), 91–98.

Kawalilak, C., Wells, C., Connell, L., & Beamer, K. (2012). E-learning access, opportunities and challenges for Aboriginal adult learners located in rural communities. *College Quarterly, 15*(2), 18.

Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.

Kelsey, K., Linder, J., & Dooley, K. (2002). Agricultural education at a distance: Let's hear from the students. *Journal of Agricultural Education, 43*(4), 24–2.

Kenner, C. & Weinerman, J. (2011). Adult learning theory: Applications to non-traditional college students. *Journal of College Reading and Learning, 41*(2), 87–96.

Kim, H., Yong Park, J., & Jin, B. (2008). Dimensions of online community attributes: Examination of online communities hosted by companies in Korea. *International Journal of Retail & Distribution Management, 36* (10), 812–830.

Kincheloe, J. (2001). Describing the bricolage: conceptualizing a new rigour in qualitative research. *Qualitative Inquiry, 7*(6), 679–692.

Kincheloe, J., & McLaren, P. (2002). Rethinking critical theory and qualitative research. In Y. Zou & E. Trueba (Eds.), *Ethnography and schools* (pp. 88–96). New York: Roman & Littlefield.

Kirby, S. L., Greaves, L., & Reid, C. (2006). *Experience research social change: Methods beyond the mainstream* (2nd ed.). Peterborough, ON: Broadview Press.

Kirkness, V. J. (1999). Aboriginal Education in Canada: a retrospective and a prospective. *Journal of American Indian Education, 31*(1), 14–30.

Kirkness, V. J., & Barnhardt, R. (1991). First Nations and higher education: The four R's-respect, relevance, reciprocity, responsibility. In R. Hayoe & J. Pan (Eds.), *Knowledge across cultures: A contribution to dialogue among civilizations*. Hong Kong: Comparative Education Research Centre, The University of Hong Kong. Retrieved from http://www/ankn.uaf.edu/IEW/winhec/FourRs2ndEd.html

Kitchen, J., Cherubini, L., Trudeau, L., & Hodson, J. (2010). Weeding out or developing capacity? Challenges for Aboriginal teacher education. *Alberta Journal of Educational Research, 56*(2), 107–123.

Knowles, M. S. (1970). *The modern practice of adult education: Adragogy versus pedagogy*. Englewood Cliffs: Prentice-Hall/Cambridge.

Knowles, M. S. (1974). Human resources development in OD. *Public Administration Review, 34*(2), 115–123.

Knowles, M. S. (1984). *Andragogy in action*. San Francisco, CA: Jossey Bass Publishers.

Kovach, M. (2009). *Indigenous methodologies: Characteristics, conversations, and contexts*. Toronto, ON: University of Toronto Press.

Kulig, J., Lamb, M., Solowoniuk, J., Weaselfat, R., Shade, C., Healy, L., White, T., & Crowshoe-Hirsch, H. (2010). Nurturing a dream: The support program for Aboriginal nursing students. *First Nations Perspectives: The Journal of the Manitoba First Nations Resource Centre, 3*(1), 89–109.

Kuh, G., Kinzie, J., Schuh, J., Whitt, E., & Associated. (2005). *Student success in college: Creating conditions that matter*. San Francisco, CA: Jossey Bass.

Ladson-Billings, G. (1998). Just what is critical race theory and what is it doing in a nice field like education? *International Journal of Qualitative Studies in Education, 11*(1), 7–24.

Laframboise, S., & Sherbina, K. (2008). *The medicine wheel*. Retrieved from http://dancingtoeaglespiritsociety.org/medwheel.php

Landon, R. (2012). *We can do it (education) better: An examination of four secondary school approaches for Aboriginal students in northwestern Ontario* (Doctoral

dissertation, University of Toronto). Retrieved from TSpace http://hdl.handle.net/1807/34776

Larimore, J. A., & McClellan, G. S. (2005). Native American student retention in U.S. postsecondary education. *New Directions for Student Services, 2005*(109), 17–32.

Levin, B. (2009). Aboriginal education still needs work. *Phi Delta Kappan, 90*(9), 689–690.

Lim, D. H., & Yoon, S. W. (2008). Team learning and collaboration between online and blended learner groups. *Performance Improvement Quarterly, 21*(3), 59–72.

Lowan-Trudeau, G. (2012). Methodological métissage: an interpretive Indigenous approach to environmental education research. *Canadian Journal of Environmental Education 17*, 113–130.

MacIver, M. (2012). Aboriginal students' perspective on the factors influencing high school completion. *Multicultural Perspectives, 14*(3), 156–162.

Malatest, R. A., & Associates Ltd. (2004). *Aboriginal Peoples in post-secondary education: What educators have learned*. Montreal, QC: Canada Millennium Scholarship Foundation.

Manifold, C., & Rambur, B. (2001). Predictors of attrition in American Indian nursing students. *Journal of Nursing Education, 40*(6), 279–281.

Manitoba Education and Youth. (2003). *Integrating Aboriginal perspectives into curricula: A resource for curriculum developers, teachers and administrators (MEY Publication no. 971.00497).* Winnipeg, MB: School Programs Division.

Martin, D. (2012). Two-eyes seeing: A framework for understanding Indigenous and non-Indigenous approaches to Indigenous health research. *Canadian Journal of Nursing Research, 44*(2), 20–42.

Martin, D., & Kipling, A. (2006). Factors shaping Aboriginal nursing students experiences. *Nurse Education Today, 26*, 688–696.

Martin, M. (2005). Seeing is believing: The role of video conferencing in distance learning. *British Journal of Educational Technology, 36*(3), 397–405.

McAuley, A., & Walton, F. (2011). Decolonizing cyberspace: Online support for the Nunavut MED. *International Review of Research in Open and Distance Learning, 12*(4). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/848

McCarthy, C. (1998). *The uses of culture: Education and the limits of ethnic affiliation.* London: Routledge.

McGivney, V. (2004). Understanding persistence in adult learning. *Open Learning, 19*(1), 33–46.

McMullen, B., & Rohrbach, A. (2003). *Distance education in remote Aboriginal communities: Barriers, learning styles and best practices.* Prince George, BC: College of Caledonia Press.

Means, B., Toyama,Y., Murphy. R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online-learning studies.* Washington, D.C.: U.S. Department of Education.

Merriam, S. B. (1998). *Case study research in education: A qualitative approach.* San Francisco, CA: Jossey Bass.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed). London: Sage.

Moore, D. (2014, March 6). *Sister Dorothy Moore* [Video comment]. Retrieved from http://www.redroadproject.ca/aaron-prosper/video/sister-dorothy-moore

Moore, M. G., & Kearsley, G. (2005). *Distance education: A systems view* (2nd ed.). Belmont, CA: Thomson Wadsworth.

Motteram, G., & Sharma, P. (2009). Blended learning in a Web 2.0 world. *International Journal of Emerging Technologies and Society, 7*(2), 83–96.

Munro, Y. (2012, June). *Performing marginalization: Unpacking online testimonials of racialized/poor youth from Canada and American post-secondary access initiatives.* A paper presented at the 32nd Annual Conference of The Society for Teaching and Learning in Higher Education. Montreal, Canada.

Munroe, E., Borden, L., Orr, A., & Meader, J. (2014). Decolonizing Aboriginal education in the 21st Century. *McGill Journal of Education, 48*(2), 317–336.

Nimmer, M. (2009). The doctoral cohort model: increasing opportunities for success. *College Student Journal, 43*(4), 1373–1337.

Noone, J. (2008). The diversity imperative: Strategies to address a diverse nursing workforce. *Nurse Forum, 43*(3), 133–143

O'Donnell,S., Perley, S., Simms, D., & Hancock, B. R. (2009). Roadblocks facing remote indigenous communities. *IEEE Technology and Society Magazine, 28*(2), 16-22.

Olsen, L. (2012). *Transition Year Program Report*. Winnipeg, MB: University of Manitoba.

Orhan, R. (2008). Redesigning a course for blended learning environment. *Turkish Online Journal of Distance Education, 9*(1), 54–66.

Ortiz, A. M., & HeavyRunner, I. (2003). Student access, retention and success: Models of inclusion and support. In M. P. K. Benham & W. J. Stein (Eds.), *The renaissance of American Indian higher education: Capturing the dream* (pp. 215-240). London: Lawrence Erlbaum Associates.

Pickrell, A. (2008). *An evaluation of the effectiveness of a postsecondary transition program for Aboriginal students* (Doctoral dissertation, Memorial University of Newfoundland). Retrieved from Proquest.

Pidgeon, M. (2009). Pushing against the margins: Indigenous theorizing of "success" and retention in higher education. *Journal of College Student Retention, 10*(3), 339–360.

Pijl-Zieber, E. M., & Hagen, B. (2011). Towards culturally relevant nursing education for Aboriginal students. *Nursing Education Today, 30*, 569–600.

Rausch, D. W., & Crawford, E. K. (2012). Cohorts, communities of inquiry, and course delivery methods: UTC best practices in learning—the hybrid community model. *The Journal of Continuing Higher Education, 60*, 175-180.

Reyhner, J., & Dodd, J. (1995, January). *Factors affecting the retention of American Indian and Alaska Native students in higher education.* A paper presented at the 1st Annual Expanding Minority Opportunities National Conference, Arizona State University, Tempe, AZ.

Reynolds, K., & Hebert, F. T. (1995). Cohort formats and intensive schedules: Added involvement and interaction for continuing higher education. *Journal of Continuing Higher Education, 43*(3), 34–41.

Richards, J., Vinnig, A., & Weinee, D. (2010). Aboriginal performance in standardized tests: Evidence and analysis from provincial schools in British Columbia. *Policy Studies Journal, 58*(1), 47–67.

Ritter, C., Polnick, B., Fink II, R., & Oescher, J. (2010). Classroom learning communities in educational leadership: A comparison study of three delivery options. *The Internet and Higher Education, 13*(1), 96–100.

Rodriguez, M. A., & Anicete, R. C. R. (2010). Students' views of a mixed hybrid ecology course. *Merlot Journal of Online Learning and Teaching, 6*(4), 791–98.

Rose, R., & Ray, J. (2011). Encapsulated presentation: A new paradigm of blended learning. *The Educational Forum, 75*(3), 228–243.

Rovai, A. P. (2002a). Building sense of community at a distance. *International Review of Research in Open and Distance Learning, 3*(1) Retrieved from: http://hdl.handle.net/10515/sy5pg1j19

Rovai, A. P. (2002b). Development of an instrument to measure classroom community. *Internet & Higher Education, 5*, 197–211.

Rovai, A. P. (2003). In search of higher persistence rates in distance education online programs. *The Internet and Higher Education, 6*, 1–16.

Rovai, A. P., & Jordan, H. M. (2004). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning, 5*(2), 3–6.

Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). London: Sage.

Saltiel, I. M., & Russo, C. S. (2001). *Cohort programming and learning: Improving educational experiences for adult learners.* Malabar, FL: Krieger.

Schreurs, B., & De Laat, M. (2012, April). *Work-based networked learning: A bottom up approach to stimulate the professional development of teachers.* Paper presented at the 8th Annual Conference on Networked Learning. Maastricht, The Netherlands.

Seyedmonir, B., Barry, K., & Seyedmonir, M. (2014). Developing a community of practice (CoP) through interdisciplinary research on flipped classrooms. *Internet Learning Journal, 3*(1), 85–94.

Shea, P. J. (2006). A study of students' sense of learning community in online learning environments. *Journal of Asynchronous Learning Networks, 10*(1), 35–44.

Shea, P. J., & Bidjerano, T. (2012). Learning presence as a moderator in the community of inquiry model. *Computers & Education, 59*(2), 316–326.

Siemans, G., & Matheos, K., (2010). Systemic changes in higher education. *in education, 16*(1).

Siefert, K., & Mandzuk, D. (2006). Student cohorts in teacher education: Support groups or intellectual communities? *Teachers College Record, 108*(7), 1296–1320.

Simms, J. V. R. (2005). E-learning and the digital divide: Perpetuating cultural and socioeconomic elitism in higher education. *Communications of the Association for Information Systems, 22*(1), 23.

Slee, J. (2010). A systemic approach to culturally responsive assessment practices and evaluation. *Higher Education Quarterly, 64*(3), 246–260.

Sloane-Seale, A. (2011). Retention and persistence in university continuing education programs at the University of Manitoba: A case study, *The Canadian Journal for the Study of Adult Education, 24*(1), 15–39.

Smith, C., & Gottheil, S. (2011). Increasing accessibility: Lessons learned in retaining special population students in Canada. *College & University, 86*(4), 47–52.

Smith, L. T. (1999). *Decolonizing methodologies: Research and Indigenous peoples* (2nd ed). London: Zed Book Ltd.

Springen, K. (2013). Flipping the classroom: A revolutionary approach to learning presents some pros and cons. *School Library Journal, 59*(4), 23.

St. Clair, R. N. (2002). Visual metaphor, cultural knowledge, and the new rhetoric. In: J. Reyhner, J. Martin, L. Lockard, & G. W. Sakiestewa (Eds.), *Learn in beauty:*

Indigenous education for a new century (pp. 85–101). Flagstaff, AZ: Northern Arizona University.

Stake, R. E. (1995). *The art of case study research*. London: Sage.

Stake, R. E. (2010). *Qualitative research: Studying how things work.* London: The Guilford Press.

Statistics Canada. (2006). 2006 *census of population* (Statistics Canada catalogue no. 97-563-XCB2006008). Retrieved from https://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=96254&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=73&VID=0&VNAMEE=&VNAMEF=

Statistics Canada. (2010). *A literature review of factors that support successful transitions by Aboriginal People from K-12 to postsecondary education.* Toronto, ON: Council of Ministers of Education Canada.

Statistics Canada. (2011). *Youth in Transition Survey (YITS).*Record number 4435. Retrieved from http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=4435

Starnes, B. A. (2006). Montana's Indian education for all: Towards an education worthy of American ideals. *Phi Delta Kappan, 88*(3), 184–92.

Straumsheim, C. (2013, October). Still in favor of the flip. *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/news/2013/10/30/despite-new-studies-flipping-classroom-still-enjoys-widespread-support

Swail, W., Redd, K., & Perna, L. (2003). Retaining minority students in higher education: A framework for success. *Higher Education Reports, 30*(20), 1–172.

Swinney, J., & Dobal, M. (2008). Embracing the challenge: Increasing workforce diversity in nursing. *Hispanic Health Care International, 6*(25), 200–224.

Takhteyev, Y. (2009). Networks of practice as heterogeneous actor-networks. *Information, Communication & Society, 12*(4), 566–583.

Thompson, T. L., & MacDonald, C. J. (2005). Community building, emergent design and expecting the unexpected: Creating a quality eLearning experience. *The Internet and Higher Education, 8,* 233–249.

Tierney, W. G. (2008). *The impact of culture on organizational decision making: Theory and practice in higher education*. Sterling: Stylus Publishing, LLC

Timmons, V. (2009). *Retention of Aboriginal students in post-secondary institutions in Atlantic Canada: An analysis of the supports available to Aboriginal students*. Saskatoon, SK: Canadian Council on Learning.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89–125.

Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education, 69,* 599–623.

Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention, 8*(1), 1–120.

Tinto, V. (2012). *Completing college: Rethinking institutional action.* Chicago: University of Chicago Press

Toulouse, P. (2007). Supporting Aboriginal student success: Self-esteem and identity, a living teachings approach. Retrieved from http://www.edu.gov.on.ca

Toulouse, P. (2011). *Achieving Aboriginal student success: A guide for K to 8 classrooms.* Winnipeg: Portage and Main Press.

Tu, C., & McIssac, M. (2002). The relationship of social presence and interaction in online classes. *The American Journal of Distance Education, 16*(3), 131–150.

Twigg, C. A. (2003). Improving learning and reducing costs: New models for online learning. *Educause Review, 38*(5), 28–38.

Valentine, J. C., Hirschy, A. S., Bremer, C. D., Novillo, W., Castellano, M., & Banister, A. (2011). Keeping at-risk students in school: A systematic review of college retention programs. *Educational Evaluation and Policy Analysis*, *33*(2), 214–234. doi: 10.3102/0162373711398126

Van Doorn, J. R., & van Doorn, J. D. (2014). The quest for knowledge transfer efficacy: Blended teaching, online and in-class, with consideration of learning typologies for non-traditional and traditional students. *Frontiers in Psychology, 5*(Apr), 1–15.

Vaughan, N. (2010). A blended community of inquiry approach: Linking student engagement and course redesign. *Internet and Higher Education, 13,* 60–65.

Walberg, B. (2008). Responding to the needs of post-secondary Aboriginal education: The development of the Indigenous leadership and community development program. In K. Knopf (Ed.), *Aboriginal Canada* (pp. 100-119). Ottawa: University of Ottawa Press.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Wetsit, D. (1999). Emphasizing the human being in distance education. *Tribal College Journal, 10*(3), 14–18.

Whitely, J. (2014). Supporting educational success for Aboriginal students: Identifying key influences. *McGill Journal of Education 49*(1), 155–181.

Williams, M. S. (2004, December). *Access to public universities: Addressing systemic inequalities.* A paper presented at the Conference on Taking Public Universities Seriously. University of Toronto, Toronto, Canada.

Wilson, A., Sanner, S., & McAllister, L. (2010). An evaluation study of a mentoring program to increase the diversity of the nursing workforce. *Journal of Cultural Diversity, 17*(4), 144–150.

Wilson, S. (2007). Guest editorial: What is an indigenist research paradigm? *Canadian Journal of Native Education, 30*(2), 193–195.

Woltering, V., Herrier, A., Spitzer, K., & Spreckelson, C. (2009). Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: Results of a mixed-method evaluation. *Advances in Health Science Education Theory and Practice, 14*(5), 725–38.

Yin, R. (1994). *Case study research: Design and methods* (2nd ed.). London: Sage.

Yin, R. (2009). *Case study research: Design and methods* (4th ed.). London: Sage.

Zapf, M. K., Bastien, B., Bodor, R., Carriere, J., & Pelech, W. (2000, May). The learning circle: A new model of BSW education for Alberta's rural, remote, and Aboriginal communities. In J. C. Montgomery & A. D. Kitchenham (Eds.), *Issues Affecting Rural Communities (II)*. Proceedings of the International Conference [on] Rural Communities & Identities in the Global Millennium, Nanaimo, British Columbia, Canada. ERIC Number ED455056.

Zinga, D., & Gordon, M. (2014). ‘Racism under the radar’: Student perceptions of school experiences in a multicultural context. *Race Ethnicity and Education (ahead of print), 1–29.* DOI: 10.1080/13613324.2014.885429.

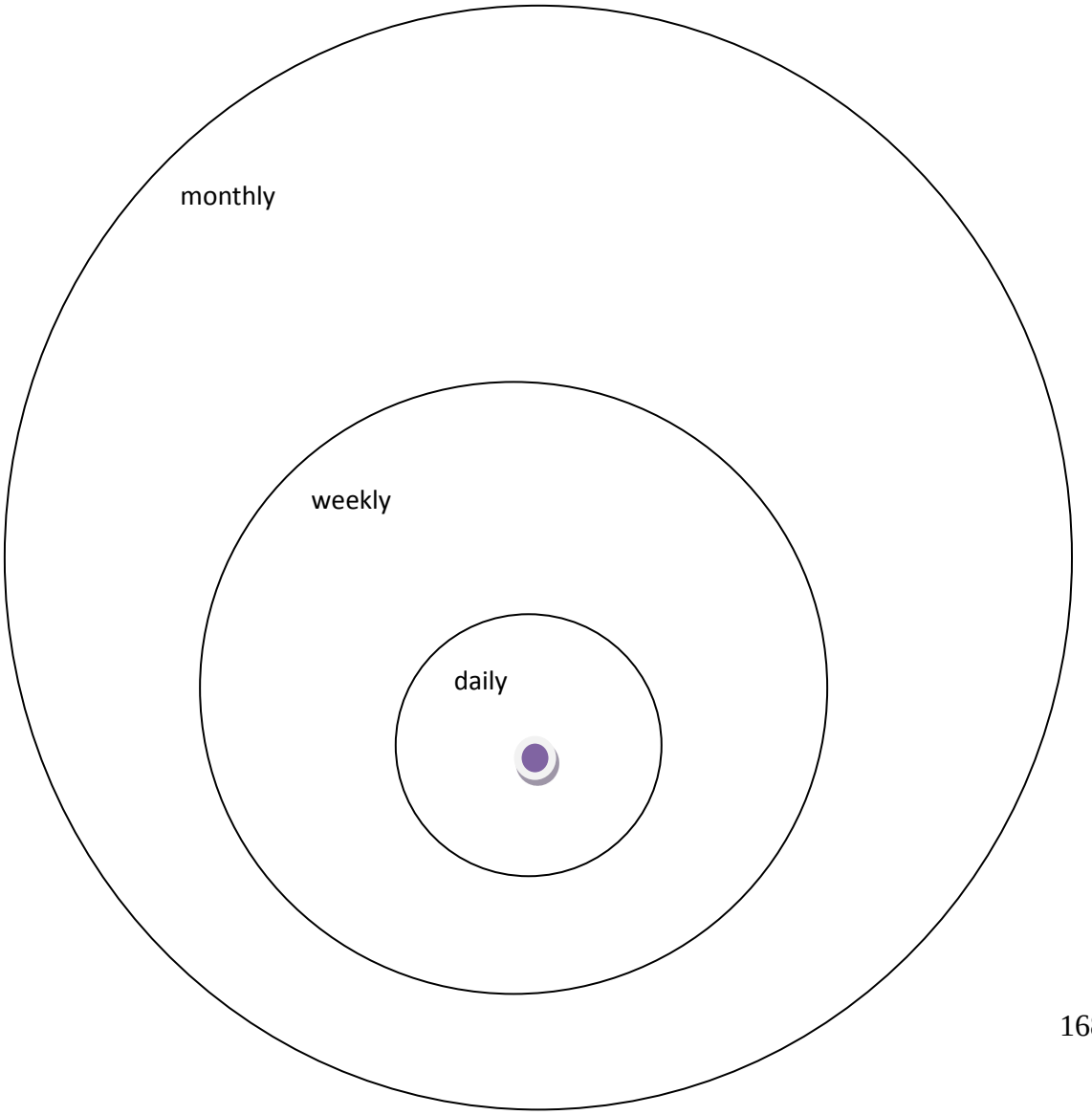
APPENDIX A

Sample Contact Map Form

Instruction to Study Participants

Please indicate your frequency of communication with your classmates and instructors in PNT by writing the name of the person in the appropriate ring. All names will be coded to ensure the privacy of your connections before sharing this information. This information will be used to create a diagram of your connections to discuss with you during the interview as well as for comparison to observations of your online activity.

CONTACT MAP



APPENDIX B

Interview Protocol

This appendix contains samples of the guides used by the researcher when conducting interviews. The guides served as a template for interviews rather than indicate a strict wording or arrangement of questions. The guide served to provide continuity of questions asked across the participants.

The 1st two samples pertain to student interviews, while the third sample addresses instructor/developer interview questions. For each interview, however, the researcher intended to respond to participants' desire to talk about other related issues and topics in order to allow for the development of emergent themes or issues unknown to the researcher at this time.

Interview Guide template Initial Interview Student

The purpose of this interview was to gather information about the students' background and current experience within the Transitions Years Program (TYP).

Length: 30 minutes

Location: to be determined by participant

Format: Semi-structured

After recording of information related to the identification of the interview for coding purposes (name of participant and date/location of interview) the following questions were asked:

1. Tell me about yourself, where do you call home? Is that where you grew up?
2. What does the word community mean to you?

3. Tell me about your community, are there people in your life that you would describe as being a support network? Can you describe in what ways they support you (financial, emotional, practical)?
4. What brought you to the TYP? How will taking these courses impact your life? Will your life be altered in any way by taking these courses?
5. For this research we are defining persistence as a continuous learning process that is the result of students' decisions to continue their participation in a particular course. Would you define persistence the same way?
6. What would persistence look like?
7. How do you currently use technology in your personal and academic life?
8. What is working well for you currently in the TYP?
9. What are your past and present challenges or frustrations in TYP?

Interview Guide template for follow-up interviews (November, March, June) for students

Purpose: The purpose of the follow-up interviews were to gain insight into the blended learning design impact on persistence decisions as well as the role of community and the conditions necessary in community to impact persistence decisions.

Length: 60 minutes

Location: Determined by participant

Format: Semi-structured

After the recording of information related to the identification of the interview for coding purposes (name of participant and date/location of interview), the participants were reminded of the purpose of the interview as outlined above as well as the definition of persistence being used

for the research: persistence is a continuous learning process that is the result of students' decisions to continue their participation in a particular course.

The introduction was followed by interview questions arranged here by theme:

Opening Question:

1. Could you describe last week in terms of your life as a student?

Attributes of design and structure of Blended Learning course design

1. What aspects of the course design are helpful with regard to persistence?
2. What aspects of the course design are not helpful with regard to persistence?
3. Have any aspects of the course design facilitated the development of a feeling of community with your classmates?
4. Alternatively, have any aspects of the course design hindered the development of a feeling of community?
5. Can you think of a course you took that encouraged your persistence? What was it about the course that inspired you to persist?
6. Did you ever have an experience taking a course when your persistence was deflated? Tell me about that experience. I wonder what it was about that course design that made it challenging to persist.

Community experience

1. I am curious about your experiences of community within this course. Has the community here influenced your commitment/persistence either positively or negatively or perhaps both?
2. You completed a contact map, which we have analyzed and used to create a networking diagram. When you view this diagram, what stands out for you the most?

3. Describe the relationship you have with your classmates?
4. Do you feel that you are part of a community of learners in this course? What has given you this feeling?
    a. If yes, what could be done to enhance this feeling?
    b. If no, what aspects of the course would need to change in order for you to feel as though you are a member of a community?

Persistence decisions

1. What factors impact your persistence decisions?
2. Can you describe the most recent challenge you have been spending time on and describe what you are trying to accomplish on this issue and what type of action you are taking to make it happen?
3. Tell me about the most significant factor that has impacted your decision to persist (desist) this term?
4. Is persistence of value to you? Is it more or less valuable at particular times?
5. Under what circumstances do you experience more or less persistence?