

Effective and High Impact Strategies: Examining the Relationship Between Persistence and
Student Engagement

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Abstract

Student retention and persistence are becoming a widely discussed topic in Canadian post-secondary education. As high attrition rates cause financial loss for institutions and influence citizens to question the value of education, institutions are identifying programs and strategies to employ in hopes of increasing post-secondary student persistence. Reviewing key retention theories in the field and identifying high impact practices on student persistence, the relationship between intentional student engagement programs and retention is closely examined. By exploring engagement strategies such as residential learning communities, peer mentoring programs, and service learning opportunities, it is evident that these practices can be applied to popular retention theories to demonstrate the effectiveness of offering meaningful co-curricular experiences for post-secondary students. Furthermore, these strategies demonstrate that high impact co-curricular opportunities are proven to increase Canadian post-secondary student persistence rates.

Keywords: student retention, student persistence, student engagement programs

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Effective and High Impact Strategies: Examining the Relationship Between Persistence and Student Engagement

Student persistence is one of the most widely studied areas of higher education (Fisher & Engemann, 2009; Tinto, 2006) and has become an increasingly hot topic in Canadian post-secondary education, as it supports our government and institutions in their goal of managing highly functional and well integrated education systems that provide students with opportunities for success (Conrad & Morris, 2010, p. 2). While the concept of student persistence has been around for some 50 years, the perspective on retention changed significantly in 1970 (Tinto, 2006) and has continued to evolve over time, particularly as students, families and all levels of government invest in the Canadian post-secondary sector (Canadian Council on Learning, 2011). Unfortunately, over the past two decades, Canada's average dropout rates have been approximately 20% - 25% from first year to second, and only approximately 60% of an entering cohort persists to degree completion (Grayson & Grayson, 2003). These statistics cause some citizens to question the high investment in higher education, particularly because each student who does not proceed to the next academic year costs Canadian institutions at least approximately \$6,282 annually (Dietsche, 1990). That cost has likely increased significantly over the past twenty-five years, and these statistics are particularly problematic knowing that student persistence is often viewed by society as a primary measure of student success and institutional success. Therefore, institutions are focusing on student persistence, as a positive and increasing retention rates is often thought to be the result of an improved quality of student life and learning on campuses, and demonstrates the value of the investment (Noel-Levitz, 2008).

Across Canadian institutions, many student service programs have opportunities available to assist students with the transition to post-secondary education and increase first year student success and retention (Grayson & Grayson, 2003). Researching and understanding the

effectiveness of various retention strategies can provide a solid foundation to student affairs professionals when implementing programs that support student persistence. As identified in a study conducted by Fisher and Engemenn (2009), the strongest determinant of student retention is student engagement. Looking at the relationship between student persistence and engagement, this paper seeks to determine if high impact student engagement programs, including living learning communities, peer mentorship programs, and experiential learning opportunities, are effective strategies to improve overall student persistence at Canadian post-secondary institutions.

Definitions: Retention vs. Persistence vs. Attrition

Until recently, the terms retention and persistence have often been used interchangeably, and attempts to differentiate these two concepts has been unsuccessful (Noel-Levitz, 2008). Both terms were previously used to explain that a student remained in a course from year to year at a single institution (Conrad & Morris, 2010). To this day, there is still not a common, universal definition of these terms, and individual scholars often include their own explanation of the each concept in their work. Noel-Levitz (2008) and Swail (2004), for example, identify persistence as the enrollment headcount of students in a particular cohort from term to term and on to degree completion, whereas, they argue that retention accounts for a student's ability to remain enrolled from year to year. Astin (1984), Bean (1980) and Cabrera, Castaneda, Nora and Hengstler (1992) discuss retention as a relationship between academic involvement and social integration that impacts a student's decision to stay enrolled at an institution. In contrast, these definitions of retention have often been compared to student attrition, outlined as the withdrawal rates of students prior to degree completion (Pascarella, 1982; Tinto, 1993). In a more modern Canadian context, the Higher Education Quality Council of Ontario (HEQCO) and Parkin and

Baldwin (2012) have shifted the perspective of retention over the last few years, and now focus primarily on what is identified as “persistence”: the ability of a student to continue their post-secondary studies from one year to the next and ultimately proceed to degree completion (Baldwin & Parkin, 2012, p. 3). To compliment the discussion on student persistence, relevant literature further identifies post-secondary attrition as the withdrawal of students prior to program completion of graduation (Fisher & Engemann, 2009). The various definitions of persistence are also heavily connected to the concepts of student success and co-curricular experiences in higher education.

For the purpose of this paper, the following terminology will be used:

Attrition: The withdrawal of a student prior to the completion of their post-secondary program.

Co-Curricular Experience: An opportunity designed to enrich campus engagement and compliment the academic experience. These experiences also enhance student learning in social, cultural, ethical, and political responsibility (University of Toronto, 2014).

Persistence: The ability for a student to continue their post-secondary studies from one year to the next and conclude with graduation.

Retention: The ability for a student to remain in their academic program from one year to the next.

Student Engagement Programs: Specific programs offered by student affairs programs to foster and create co-curricular experiences.

Student Success: Providing high quality learning experiences that combine strong teaching and high levels of student engagement to support a student in completing their post-secondary credential, attain relevant employment, and earn a reasonable income (Wiggins & Arnold, 2011, p. 3).

Literature Review: Retention Theories in Post-Secondary Education

To effectively understand how student engagement programs can impact student persistence, it is essential to have an understanding of the literature in the field on post-secondary student persistence and attrition. The research on these concepts spans well over five decades, and continues to become more advanced as scholars form a more thorough understanding of the complexities that shape the student experience and overall persistence (Tinto, 2006). Research in this area began to change in the 1970s, once theorists started to shift their views of retention from the abilities of a student, to the influence of the environment in a student's choice to stay or leave an institution.

The most popular model of student attrition to emerge during this time was Tinto's (1975) Student Integration Model (Grayson & Grayson, 2003), and is still considered one of the most popular in the field.

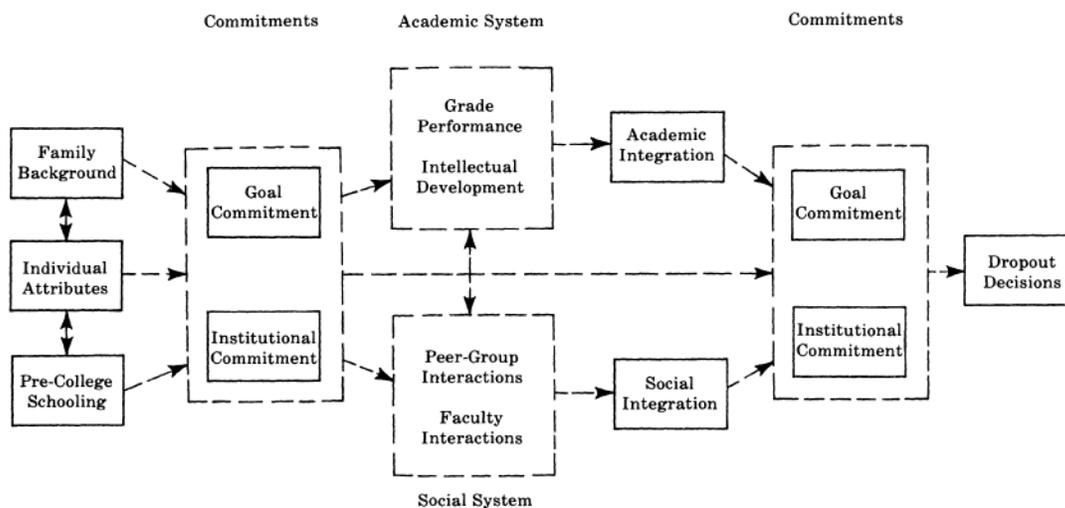


Figure 1: Student Integration Model (Tinto, 1975)

The Student Integration Model was unique at the time, as it focused on identifying multiple factors involved in student persistence, whereas previous studies had primarily focused

on one single concept (McGivney, 2005). Based on different sets of factors that affect persistence, the first phase of the model looks at a student's background, individual attributes, and commitments to personal goals and the institution. Once enrolled, students engage with academic experiences, intellectual development, as well as social integration. In particular, Tinto (1975) states that it is critical to integrate opportunities for interaction between a student and other members of the institution, both faculty and peers, in the first year of post-secondary education (Tinto, 2006). Tinto's (1975) concept became heavily connected to what became known as the "age of involvement", and theorists such as Aston, Pascarella, Terenzini reinforced Tinto's (1975) focus on social integration and student involvement. Tinto's (1975) research also influenced practical recommendations to create student persistence programs, encouraging institutions to employ practices that would increase academic values and social support (Bean & Eaton, 2001). Furthermore, the model generated a great deal of inquiry into student attrition, particularly from first to second year (Grayson & Grayson, 2003). This inquiry paved the way for further research on student retention in the years to come.

In 1985, Bean and Metzner created their Student Attrition Model, which included additional factors that were not included in Tinto's (1975) Student Integration Model. The main concepts of Bean and Metzner's theory can be seen in Figure 2.

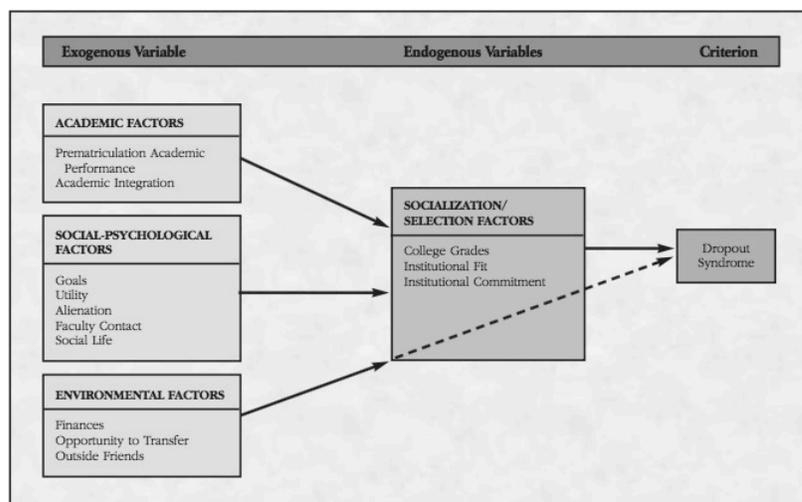


Figure 2: Student Attrition Model (Bean & Metzner, 1985)

In the Student Attrition Model, the attrition factors are divided into three areas: academic, social-psychological, and environmental. While many of the factors included in this model are also present in Tinto's (1975) work, Bean and Metzner (1985) added environmental factors not previously discussed, such as finance, opportunity to transfer, and outside friends. Despite the fact that the Student Attrition Model includes many of the same concepts as Tinto (1975), the utility of the two models is employed quite differently (Grayson & Grayson, 2003). As pointed out by Cabrera, Castaneda, Nora and Hengstler (1992), both models look at persistence over time and argue that pre-college characteristics affect how students will adjust to their institution. However, unlike in Tinto's (1975) diagram, the Student Attrition Model emphasizes the importance that external factors play in influencing attitudes and decisions. Furthermore, "...whereas the Student Integration Model regards academic performance as an indicator of academic integration, the Student Attrition Model regards college grades as an outcome variable resulting from social-psychological processes" (Cabrera et al., 1992, p. 145). In the final analysis of their research, Cabrera et al. (1992) identified that while the Student Integration Model has had more of its hypothesis validated, Bean and Metzner's (1985) model better assists in identifying the importance of external factors, and future research should look to combine the insights from both theories (Grayson & Grayson, 2003).

Almost two decades later, Swail (2004) did look to Tinto's (1975) and Bean and Metzner's (1985) models as the foundation for his framework on student retention, The Geometric Model of Student Persistence and Achievement (Figure 3). This model also focuses on three factors: cognitive, socio-psychological and institutional, which are very similar to Bean and Metzner's (1985) academic, social and environmental variables.

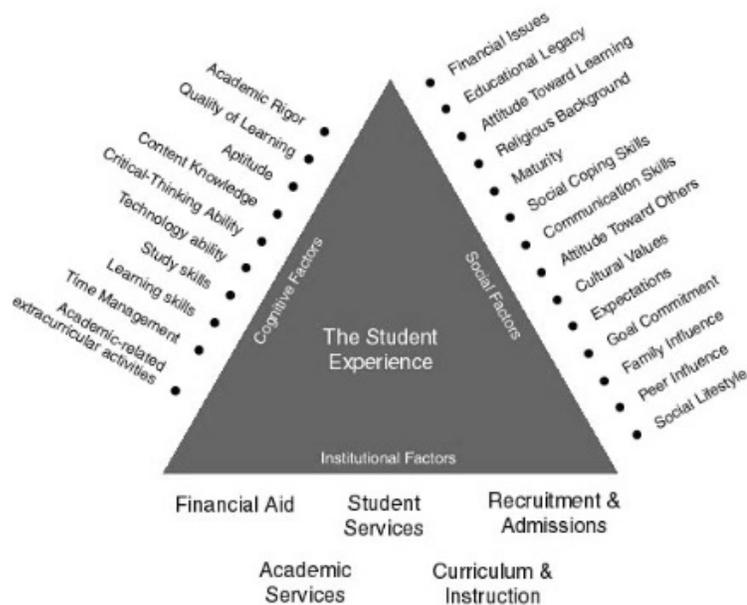


Figure 3: The Geometric Model of Student Persistence and Achievement (Swail, 2004)

The difference in Swail's (2004) model is that it places the student at the centre of the model, rather than as an indifferent element to a flow chart (p. 13). The framework acts as a visual reminder that all three factors must be equal in order for a student to have a balanced experience, through a combination of student-specific features and institutional resources. Based on Swail's (2004) model, rarely does a student come to a post-secondary institution with a balanced triangle. It is more common for a student to arrive as an isosceles or scalene, and they often require institutional supports or programs to transform into an equilateral polygon by the end of their post-secondary career. Therefore, the equilibrium of a student's triangle is based on, "the ability of the institution to deliver the appropriate level of support services to counter the strengths and weaknesses of the student" (Swail, 2004, p. 18). These types of institutional services are more thoroughly discussed than in previous models, and emphasize the important role of various services on campus, including financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction (Swail, 2004). The equilateral triangle

(Figure 3) is a reminder to post-secondary educators of their role in supporting students, and highlights the importance of assisting students in connecting all three factors together.

Student Engagement and Persistence

There is a prominent connection between Tinto's (1975), Bean and Metzner's (1985), and Swail's (2004) factors of social integration and the concept of student engagement. Astin's (1984) notion of student involvement "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (p. 297). As paraphrased by Grayson and Grayson (2003), the greater the student involvement, the more positive the outcomes. Moreover, the connection between persistence theory and student involvement is further discussed by Terenzini, Pascaella and Bliming (1996), as their research concluded, "academic and cognitive learning are positively shaped by a wide variety of out of the classroom experiences" (p. 157). These experiences represent student engagement opportunities, which Kuh, Kinzie, Buckley, Bridges and Hayek (2007) argue combine the time and energy students invest into purposeful activities and the effort institutions devote to efficient educational practices.

Furthermore, research conducted by Seidman and Brown (2006) proposes that students learn more in a non-academic setting, as students spend the majority of their educational experience outside of the classroom (Kuh, Schuh, Witt & Associates, 1991). In fact, it has been argued that co-curricular experiences account for approximately 70% of what students gain from post-secondary education (Kuh, 1993). This confirms the notion that outside of the classroom engagement on a post-secondary campus positively affects learning and student development in a number of ways (Terenzini et al., 1996). In fact, in Hughes & Paces' (2003) study, it was confirmed that students who are less engaged outside of the classroom than their counterparts are less likely to persist. In a more recent study, it was also evident that all students attending

institutions with complementary initiatives and purposeful educational practices are more likely to be more satisfied, perform better academically, and persist to graduation (Kuh, et al., 2007).

As there becomes heightened awareness about the relationship between student engagement and persistence, co-curricular experiences become increasingly more important to student affairs educators, whose primary role is to create meaningful learning experiences for students outside of the classroom (Goodman, 2014). The mission of student affairs departments is typically to facilitate opportunities to create a holistic student experience through student development and social interactions (ACPA & NASPA, 2006). In her study on the effectiveness of outside of the classroom experiences, Goodman (2014) concluded that student affairs work does have a positive effect on multiple areas of student development, and should continue to find ways to support students in making meaningful co-curricular experiences that encourage connections with faculty and peers, interactions with students who are different than themselves, and relate their in-class knowledge to other experiences. Furthermore, the value of student affairs programs is “the application of human development concepts in post secondary settings so that everyone involved can master increasingly complex developmental tasks, achieve self-direction, and become interdependent” (Miller & Prince, 1976, p. 3). When intentional and well-designed, effective practices in these areas can include living-learning communities, peer mentoring, and service learning opportunities (Kuh, et al., 2008), and positively impact student satisfaction and persistence. These opportunities were identified as high-impact practices (HIPs) in the 2014 National Survey of Student Engagement (NSSE), which evaluates over 1500 universities and colleges in the United States and Canada.

Living-Learning Communities

Pascarella and Terenzini (1991) concluded that living in residence versus commuting to campus is perhaps the “single most consistent within-college determinant of impact” (p. 611). Compared to students who live at home, studies have demonstrated that those who live in residence are more engaged in co-curricular and cultural events on campus, they interact more frequently with faculty and peers, and demonstrate greater increases in cultural, intellectual, social and political values (Pascarella, Terenzini & Bliming, 1996). A study conducted by Pascarella and Chapman (1983) to identify the degree to which Tinto’s retention model applied to commuter colleges and residential colleges concluded that persistence “... in residential institutions is more likely to be mediated by the actual experience of college” than their commuting counterparts, who are more influenced by student background traits (p. 99). Evidently, students who live in residence halls are more likely to persist and graduate from post-secondary education (Pascarella, et al., 1996).

In addition to a residential experience, many institutions offer living-learning communities, which are environments that integrate a student’s living space in residence with their academic and learning experience (Pascarella, et al. 1996). Heavily connected to persistence theories that combine the social and academic integration, these residence environments create a space for students to apply academic knowledge and gain social support from peers. Studies have identified that students who live in these learning communities tend to have higher academic performance than their counterparts in traditional residence halls, and have an easier transitional adjustment into post-secondary education (Barns, 1997; Goebel, 1977; Vander Wall, 1972; Viehe, 1977). Pascarella and Terenzini (1981) found in their study that living-learning students also had higher gains in cognitive and personal development than their

peers. While many American institutions have had living-learning communities for quite some time, they are relatively new to Canadian post-secondary education. Many institutions have started to invest in and implement living-learning communities on their campuses in hopes of attracting and retaining students (Philpott & Strange, 2003). Athabasca University has even identified learning communities as one of their primary engagement initiatives moving forward (Mirza, 2011), recognizing the impact this program has on student persistence and graduation.

In order for the residence environment to be considered a learning community, students are often required to take at least two credits together, which is why many of these communities are program-focused. By enrolling in the same courses, students are proven to be more engaged in their program of study and have stronger relationships with fellow students (Hanover Research Council, 2010). Due to this combination of academic and social integration, learning communities are a significant factor in increasing student retention and persistence (Hanover Research Council, 2010, p. 18). Furthermore, learning communities represent an intentional structuring of students' time, credit, and learning experiences to create meaningful connection between peers and faculty. By housing learning communities in residence, an environment is created that is not only a favorable social space, rather, it also creates a more intellectual climate than conventional residence floors (Barnes, 1977). This intellectual climate is enhanced by the increased informal faculty-student interaction that these communities create, particularly when faculty live in residence or teach classes in the residence halls to these students. Evidently, learning communities have been proven to be very effective, and are considered one of the six High-Impact Practices (NSSE, 2014). Therefore, it is not surprising that a study conducted by Pascarella et al. (1996) confirmed that students living in residential learning communities are more likely to persist to graduation.

Peer Mentoring

As student persistence rates remain a top priority for institutions, peer mentoring and advising is becoming increasingly popular at large and small post-secondary institutions (Hanover Research Council, 2010). While institutions are looking for new ways to offer academic and social support to students, peer mentorship programs are providing an alternative to classroom learning. When intentional and genuine, mentorship is about creating a meaningful relationship with another individual, and focuses on mutual respect, a willingness to learn from each other, and the use of interpersonal skills (Salinitri, 2005). Furthermore, mentorship often focuses on academic support, personal development, and provides advice, support and knowledge (Colvin & Ashman, 2010).

In post-secondary education, mentorship is proving to be a beneficial student engagement program, as it is proven to be a positive experience for both the mentee and the mentor involved. The mentees usually gain improved self-confidence, an increased ability to think critically, and an awareness of culture, politics and philosophy (Rawlings, 2002). Mentorship has also had positive correlations to career development and an increased interest in being a mentor to a student in the future as well. For mentors, the opportunity allows them to reflect on their own experiences, and use it to help support their protégé. Involvement also increases overall mentor satisfaction, creates strong professional relationships, and gains peer recognition. All of these factors contribute to a strong feeling of personal learning and development (Rawlings, 2002).

To better understand how students see the value of peer mentorship programs, Colvin and Ashman (2010) conducted a study to identify how mentors and students view the peer mentor role. The results from the research were coded into five specific roles: connecting link, peer leader, learning coach, student advocate, and trusted friend. As a connecting link, students see

their mentor as a resource to help them get involved inside and outside of the classroom. As a peer leader, mentors were thought of as a guide, working to motivate their mentee to improve academically. When students identified mentors as a learning coach, they saw the leader as someone who helps students identify learning strengths and styles to achieve their potential. In this role, a mentor is teaching students important academic and life skills, and encouraging students to use these tools to be successful in the future. When discussing mentors as advocates, students saw their peer as a liaison between themselves and their instructors, identifying them as someone they could turn to for academic support. Finally, many mentors were also referred to as a trusted friend (Colvin & Ashman, 2010). Based on this research, it is apparent that mentors and students alike find meaning in mentorship programs, and often have individual and unique experiences. Evidently, students remain in mentoring relationships for mutual and exclusive benefits (Salinitri, 2005).

The positive attitudes that mentorship experiences create can lead to increased feelings of institutional fit, loyalty and the intention to persist to graduation (Bean & Eaton, 2001). This directly connects to a student's ability to be socially integrated and feel as though they belong at the respective institution. Academically speaking, mentorship programs are equally as important in applying retention theory to practice. This is evident in Salinitri's (2005) study, which demonstrates that mentoring for students with low proficiency levels has a dramatic effect on student retention (p. 867). In particular, statistically significant data in this study provided evidence that a mentoring program increased students' overall grade point average and those enrolled in a mentoring relationship failed fewer courses. The overall benefits of peer mentoring programs are practical student engagement opportunities offered through student services programs that support students in finding balance in their experience, as discussed by Swail

(2004) and further demonstrate the connection between co-curricular experiences and student persistence.

Service Learning

Experiential and service learning is also considered to be an effective student engagement strategy, and is identified as one of NSSE's High-Impact Practices (2014). As with learning communities and mentorship programs, service-learning opportunities are designed to connect groups of like-minded students and focus on building intentional relationships. In the context of service learning, meaningful relationships are created within a specific community, often outside of an institution and campus. In a scan of engagement structures across Canadian universities in 2011, thirteen of 32 institutions had identified service learning, experiential learning, or community connections as one of their key engagement and persistence strategies (Mirza, 2011). The movement towards incorporating service learning programs into our students' educational experience is not startling, considering the concept of experiential learning in post-secondary education has been shown to benefit students, employers, and society (Council of Ontario Universities, 2014). Service learning also encompasses different forms of learning for our students, and as discussed by Jacoby (1996), is defined as "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development" (p. 5). Often grounded in Kolb's Cycle of Experiential Learning (1984), this type of experiential learning and education is a process of constructing knowledge, and a cycle where an individual moves through experiencing, reflecting, thinking and acting. This cycle can serve as a guide in creating new experiences for our students in the future.

For many Canadian students, service-learning experiences are directly connected to feeling a sense of belonging in the greater urban or rural community. In a study conducted by Whalen (2015) about the value of experiential learning at Canadian higher education campuses, the majority of the post-secondary institutions who had a service-learning program connected the program back to the campus and greater community. This is what has become known as community engagement: the collaboration between a higher education institution and the larger community for the mutually beneficial exchange of knowledge, resources, reciprocity and partnership (Boyer, 1996). Community engagement has become such an important student engagement initiative that the Association of Universities and Colleges in Canada discussed it in its 2008 research report, noting that:

Community partnerships help universities define and scope the research questions and provide access to research partnerships and sources of local expertise, as well as additional funding and in-kind contributions. In turn, universities provide communities with access to wide-ranging and in-depth knowledge and national and international expertise that informs and addresses community challenges and opportunities in a meaningful way (p. 85).

Furthermore, this type of student engagement adds to the rich and various resources, capacities, skills and imagination in the field of Canadian education (Hall, 2009).

In addition to service-learning and community engagement being deeply rooted in the fabric of Canadian higher education, dating back to the 1930s with the University Toronto (Hall, 2009), such student engagement strategies are considered High Impact Practices, as they provide opportunities outside of the classroom for students to interact with people from different backgrounds, learn from others, and prepare for personal and civic participation (NSSE, 2014, p. 35). Furthermore, such opportunities inspire reflective thought and integrated learning, which enable students to relate their experiences to the content at hand, and make connections between their learning and the world around them. In fact, a study by Sax and Astin (1977) revealed that

students who participate in service learning programs become more civilly responsible, demonstrate higher academic development, show gains in life skills, and have improved interpersonal skills. Jacoby's (1996) research also demonstrates that service learning is education beyond that of the classroom; it offers students the opportunity to apply theory to practice in new situations. From the perspective of all three persistence theories discussed, it is apparent that service learning and community engagement are directly connected to academic and social integration, providing a co-curricular learning experience and an opportunity to build relationships with peers through diverse interactions. Connecting to Bean and Metzner's (1985) theory specifically regarding institutional fit, many students have identified that a service learning experience has created a new sense of ownership over a new community and inspired a sense of belonging (Bean & Eaton, 2001).

Conclusion

Student attrition and persistence are on-going conversations in Canadian post-secondary education and will likely continue well into the future. With Canadians investing so much into education, it is no wonder that student persistence is a key concern, particularly as 87% of Canadians have identified that a highly skilled and educated workforce is the single most important element necessary to ensure a strong economic future (Canadian Council on Learning, 2011). Additionally, knowing that students are taking different pathways to reach their career destinations (Parkin & Baldwin, 2012), it is important to have engagement programs in place that support students throughout their academic journey and encourage personal development. Based on NSSE (2014) and student engagement literature, the most effective way to support and assist students in persisting to graduation is by employing high impact practices outside of the classroom that support academic achievement, create social interactions, and provide community

learning experiences. Each of these engagement strategies is directly connected back to one or multiple retention theories in the field, and proven to increase student persistence. However, demonstrating the value of these student engagement opportunities on student attrition is often difficult with such a limited amount of Canadian content. As discussed by Grayson and Grayson (2003), we cannot assume as scholars that research conducted in the United States is equally applicable to the Canadian post-secondary landscape. We can, however, continue to find ways to utilize retention theories and engagement strategies, and report back on their success, or lack thereof, within the Canadian context. Knowing so many Canadian post-secondary systems are employing these practices at their respective institutions, it is important that student affairs professionals are encouraging colleagues from across the country to share their unique experiences. Sharing institutional learning experiences and research will continue to provide Canadian higher education practitioners with engagement strategies to retain students and support student success more effectively in the future.

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