Instrument Development for Examining Student Attrition

Timothy J. McRoberts, Dip. Adult Ed, MEd
Faculty of Education
University of Prince Edward Island
Charlottetown, Prince Edward Island, C1A 4P3

Tess Miller, BSc, MEd, PhD
Associate Professor
Faculty of Education
University of Prince Edward Island
Charlottetown, Prince Edward Island, C1A 4P3

ABSTRACT

Instruments designed to track student changes in higher education are essential for monitoring program development in competitive higher education markets. As part of a developmental evaluation, a student questionnaire was developed and piloted to examine attrition rates in college programs. The purpose of the questionnaire was to explore factors influencing students' decisions to leave college programs prior to completing their studies. Three factors believed to influence students' decisions to withdraw from programs were related to wellness, finances, and the overall college experience. A survey consisting of 20 items was piloted with 30 individuals who imagined they made the decision to leave a college program. This pilot study provided an overview of the changing Canadian post-secondary enrolment landscape, instrument enhancement, and procedures for analysis followed by ideas for implementing the questionnaire.

INTRODUCTION

As one of four primary community colleges in Atlantic Canada and the sole community college on Prince Edward Island, Holland College has supported the learning goals of local, regional, national, and international students since 1969 (MacKinnon, 2008). Similar to other jurisdictions, students' learning goals change as they align their post-secondary training with the demands of the workforce. In Atlantic Canada, college programs are also responding to changes impacting workforce demographics where it has been predicted that the 18 to 24 year old population in the region would decrease by 14% between the years of 2008 and 2018 (Maritime Provinces Higher Education Commission, 2007). Such a decrease in enrolment would result in an inevitable reduction in college applications from regional high school graduates. The changing employment market combined with a decrease in student population was a catalyst to launch a new academic model at Holland College in 2011.

The intent of the model was to address this drop in student enrolment and better meet the learning needs of career changers, partial degree earners, international students, and those seeking individual course credits (Association of Canadian Community Colleges, 2010). The new academic model provided students with the opportunity for increased academic choice as they registered for individual courses or an entire college program (Howard, 2011). This approach was envisioned to address the decline in regional, secondary school graduates by marketing individual courses alongside full programs thus making registration more streamlined and attractive to a broader applicant population. To remain abreast of shifts in students' career choices, enrolment patterns, and overall satisfaction of the college experience, Holland College has systematically and strategically monitored changes in student enrolment patterns. Unfortunately, the traditional, college-initiated status forms and satisfaction surveys did not capture relevant data regarding changes in student enrolment. For example, the traditional documentation failed to identify reasons why a student requested changing their full-time enrolment status to part-time status or decided to discontinue their studies. Was the change due to dissatisfaction with the program, a career opportunity, financial struggles, or perhaps a personal family reason? Given the inadequacy to capture reasons why students changed their program status it is not possible to make informed modifications to current programs or create new programs. Furthermore, the dependence on faculty and administrators to interpret or infer reasons or explanations to changes in program status for a student was not reliable given that

the information relied on inferences and lacked a systematic means of gathering this information.

Historically, a faculty member initiated enrolment changes, such as program discontinuation or course de-registration, on behalf of a student at Holland College. These changes were communicated with the Admissions Office through an electronically submitted, standardized form. Although this electronic document included a section for the faculty member to add comments to describe the student's situation, as a senior administrator and author of this paper, I can attest that faculty rarely added any comments. As noted above, the little information that was captured was based on the perspective of the faculty member rather than the student given that the faculty member. Consequently, the reliability of the information collected was questionable because it was second-hand and for the little information that was collected, it was too small to make any generalizations.

The implications of this method of attempting to monitor student attrition resulted in unreliable data that led to unfounded speculation (often negative) by college faculty, administrators, and senior executives regarding student attrition. For example, accusations that a decline in student enrolment for a particular course or program was due to poor quality instruction, was highly speculative and damaging to faculty profiles. On many fronts, a well-designed survey which could be completed by the student would serve the accountability needs of the institution and thereby guide future development of college programs in a manner better suited to the learning needs of students.

The sustainability of college programs in the competitive 21st century education market is dependent on knowing the learning needs of students. Without monitoring changes in student enrolment patterns it is possible that the skills gap in the Canadian workforce would continue to widen given the misalignment between student learning needs and college programs (Association of Canadian Community Colleges, 2010).

PURPOSE

The purpose of this developmental program evaluation was to create an instrument that would capture student enrolment changes within various college programs and then pilot the instrument with a pseudo group of participants to evaluate its effectiveness and applicability in a post-secondary environment. The key evaluation question posed for this study focused on determining factors influencing student changes in enrolment. This study was launched acknowledging these factors would guide the development of the instrument that would ultimately be used to survey students whenever they made a course or program change.

Developmental Evaluation Framework

Given the need to create an instrument to monitor reasons influencing student attrition, a developmental evaluation (DE) framework was selected to guide the process of instrument development (Patton, 2008). The developmental nature of this evaluation is based on learning rather than accountability given the proactive initiative to create an instrument to guide the growth and prosperity of Holland College. DE are effective approaches within organizations, such as community colleges, which are observed as constantly evolving, adapting, and growing during times of change (Gamble, 2008); as was the case at the time of this evaluation. This evaluation model is also noted for its strong social innovation platform (Guijt, Kusters, Lont, & Visser, 2012), which aligns with the mandate of Holland College. Lastly, the DE framework allowed the author to assume an integrated, consultative role within the evaluation that, in turn, challenged the author to manage personal and professional biases regarding student attrition (Rey, Tremblay, & Brousselle, 2013).

Such a participatory lens would also promote buy-in from stakeholders (e.g., college faculty, administrators, and senior executives) that would create a transformational learning opportunity within the organization. This occurrence would aid in helping stakeholders understand what is needed to meet their goals (Preskill & Torres, 2001); and subsequently promote utilization of the final instrument (Cousins & Earl, 1995).

Contextual Literature

In 2012, administrators and faculty at Holland College, one of four primary community colleges in Atlantic Canada, revised its institutional mission statement. This activity was undertaken because the previous mission statement was approximately 15 years old and no longer represented the direction of the institution. Presented as "Learning for Life in a Dynamic World", the new mission statement described the belief that learning was a life-skill applicable throughout society (Holland College, 2010). In doing so, Holland College reaffirmed its position as an institution embedded into the social fabric of every student.

By assuming a position of lifelong learning, Holland College accepted responsibility to support students who experienced challenges within traditional program pathways. This commitment to lifelong learning also reflected the learning needs of 21st century students who will undoubtedly pursue more than one career in their lifetime.

Such mobility will be realized through training beyond an initial post-secondary program as a result of the changing job environment; a condition of today's globalized and interconnected economy (Schleicher, 2010). The new vision for Holland College would adopt a student-centered academic model responsive to learning needs characterized by uncertainty in the workforce.

A culture of change (Fullan, 1999), regarding faculty and student attitudes towards attrition was identified as key to this investigation. This orientation was employed to open new lines of communication between faculty, part-time students, career changers, and international learners and contributed to a deeper awareness of learners who presented new motivations as to why they were in college (Willcoxson & Wynder, 2010). By considering the manner in which adult learners in community colleges attempted to connect institutional learning to real-life situations (MacKeracher, 1996), expanded awareness of the relationships between faculty and students remained an important aspect of ensuring quality within the teaching and learning dynamic and managing student attrition. By accepting the notion that increased levels of teacher-student engagement resulted in decreased levels of student attrition (Crosling, Heagany, & Thomas, 2009), the concept of learner engagement became integral to stakeholder's understanding of the importance of teacher-student engagement. Thus, learner engagement served as the main focus of the instrument development to capture both student and college influenced reasons regarding enrolment changes. This rationale was supported by theories of institutional learning which are described as a function between teachers, students, and content (Corso, Bundick, Haywood, & Quaglia, 2013).

Although the significance of teacher-student engagement has been linked to quality learning experiences, up to 60% of American high school students remained chronically disengaged (Klem & Connell, 2004). For reasons such as this, the importance of investigating student attrition was connected to helping faculty refine their own teaching and learning practices with a new generation of students. With new student populations accessing community colleges, teaching could not continue as it had in the past (Canadian Education Association, 2013), because communication practices, workplace competencies, and technological advancements in industry have each contributed to a new graduate profile calling on the student to demonstrate skills beyond the scope of simple knowledge transfer. As a result, increased opportunities for learning engagement was needed to create graduates competent to compete in the new workplace (Gallup, 2013).

By examining a student engagement core model (Bundick, Corso, Quaglia, & Haywood, in press) that focused on curricular relevance, expertise, and relationships between students, teachers, and content, an opportunity was presented to make deeper connections as to why students left their program of choice. In addition, engagement in the forms of thinking, feeling, and acting were a result of the student believing their teachers were available, concerned, impartial, and respectful (Wentzel, 1998). This perspective was supported by Silverman (2007) and Chan (2004) as their research concluded that the beliefs and attitudes of teachers had a direct impact on both students and the teaching and learning dynamic. Thus, the tenets surrounding these beliefs were presented to stakeholders for consideration in designing a questionnaire to track student enrolment changes.

METHOD

Instrument Design

In consultation with stakeholders via individual interviews and group meetings, three principal areas influencing changes in student enrolment were articulated: a) changes related to well-being, b) changes affected by insufficient financial resources, and c) college-influenced changes (e.g., dissatisfaction with a course, course was too challenging). These three areas framed the construct of student attrition for use in the item development phase for the questionnaire. In consultation with a measurement specialist, questionnaire items were developed and the resulting 20 items capturing reasons for changes in student enrolment is presented in Appendix A (Change of Enrolment Survey). A four-point rating scale anchored at each end with the expressions: *this is not me at all* and *this definitely applies to me* was used to capture students' beliefs influencing their change of enrolment. These anchors were designed to appeal more to a student audience in comparison to the traditional anchors of *strongly disagree* to *strongly agree*. A four-point scale was selected over the more common five-point scale to eliminate clumping of responses on the middle response option that is probable when using smaller populations (Dawes, 2008). Reducing the size of the scale would also minimize the number of potentially empty cells that might contribute to a Type II error (indicating a statistically significant difference between groups when there actually is no difference).

The questionnaire also included an open-ended item for students to add relevant information, in the form of narrative feedback, which could be used to attend to quality discrepancies in a program and help others more fully understand the financial, psychological, and societal complexities experienced by community college students not otherwise considered (O'Banion, 1997). In addition to these items surveying the construct, additional items doc-

umented students' program status (including current program), academic year, and confirmation of either full- or part-time study. The paper-based survey was intended to be voluntarily and anonymously completed by a student when they met with a faculty member to request a change to their enrolment status. After completing the survey, students would seal it in an envelope addressed to an administrative assistant responsible for collating the surveys. This survey was designed to be brief (i.e., efficiently capture reasons for change with the minimum number of items) so that the student did not feel overwhelmed during an otherwise already stressful time in their life; while recognizing that longer surveys (i.e., more items) are generally more reliable.

Piloting the Survey

Given the need to complete the developmental phase of the evaluation, the questionnaire was piloted before implementing it with 30 pseudo students in a post-secondary context. The data gathered from this pilot study allowed us to examine the utility of the instrument, obtain an initial measure of the reliability, and prepare statistical procedures for analyzing the data. The 30 pseudo students were currently or had previously been enrolled in a post-secondary program. They were instructed to imagine themselves as full-time students enrolled in one of three programs (i.e., Business Administration (BA), Medical Support Services (MSS), and Tourism and Travel Management (TTM)) within a community college Business Studies program division who wished to change to their academic status. Narrowing the pilot to these programs was intended to eliminate the possibility spreading the pilot data too thin as would be the case if all 65 programs at Holland College were included in this small pilot study.

Descriptive and Inferential Statistics

The anonymously completed surveys were manually numbered in sequence from one to thirty and then entered into a statistical analysis software program. The dataset was checked for typographical data entry errors by reviewing the contents within each cell. A minimum and maximum dispersion check of one to four confirmed there were no data entry errors for the 20 survey items. A second, manual check of the dataset confirmed frequencies for the BA, MSS, and TTM case outputs equalled the Total Students case output. Where no data were entered in the dataset, the corresponding cell in Table 1 was left blank. Finally, kurtosis and skewness were used to check for normality, or symmetry of the dataset, which confirmed distribution quality. Frequencies were calculated for all items and were presented as raw data with corresponding percentages. The mean and standard deviation for the Likert type items was calculated and rounded to two decimal points in order to ensure precision when applying future statistical techniques (Frankfort-Nachmias, 2006). To examine whether the scale was measuring the same underlying construct, known as the reliability of the scale, Cronbach's alpha was calculated. To further test the applicability of the dataset, differences between the three business programs (grouping variables) and the construct as represented by three dimensions: wellness, finance, and, college experience, were analyzed using a one-way analysis of variance (ANOVA).

FINDINGS

Although it was not expected or feasible to believe that the pseudo sample could respond entirely in the mind of a real student going through a change in their college program, we analyzed the data as if our data was representative of a real sample of students. This process would document the procedure for analysis and obtain statistical measures that would serve as indicators of how a real sample would respond and add to the instrument development.

Descriptive Statistical Analysis

Table 1 summarizes the descriptive statistics including frequencies, mean, and standard deviation. Overall there was a good range or spread of responses except for a few items. For example, in item q8, which asked the student to respond to their personal, financial situation, there was a high frequency of responses at the low end of the scale and an absence of responses at the level 4 rating (i.e., this does not apply to me). This finding suggested money was not major factor influencing the pseudo group's enrolment change. This finding was well aligned with item q5 in which responses were more evenly distributed and only 10% of the participants indicated that they could definitely not afford tuition their program. Overall, the responses clustered at the low end (rating of 1 and 2) of the scale as indicated by mean scores rarely exceeded a mean score of 2.5.

Cronbach's alpha was used as an initial measure of the internal consistency of the scale. An item analysis revealed that the alpha coefficient for one item (i.e., q2: A personal medical reason requires my attention) was negatively loaded. However, further examination of this item (i.e., M = 1.90, SD = 1.11) does not suggest this item is performing differently than other items in the scale and this anomaly may be the result of pseudo sample and/or the small sample size. In terms of reliability of the entire scale (including item 2), Cronbach's alpha was 0.410 (0.499 with item 2 removed). This alpha coefficient is below the acceptable standard of 0.7 (Vogt, 2007); however, as noted above was

Table 1
Change of Enrolment Survey Items, Frequencies, Percentages, Mean, and Standard Deviation

			This is not me at all			This definitely applies to me		
	Item	**Group**	**1**	**2**	**3**	**4**	**M**	**SD**
Wellness Considerations								
Q1	I feel mentally overwhelmed in this program	MSS	3 (33.3)	4 (44.4)	2 (22.2)		1.93	0.98
		BA	4 (33.3)	5 (41.7)	2 (16.7)	1 (8.3)	2.00	0.95
		TTM	5 (55.6)	2 (22.2)	4 (13.3)	2 (22.2)	1.89	1.27
		Total	12 (40.0)	11 (36.7)		3 (10.0)	1.93	0.98
Q2	A personal medical reason requires my attention.	MSS	4 (44.4)	3 (33.3)	2 (22.2)		1.87	1.11
		BA	7 (58.3)	2 (16.7)	2 (16.7)	1 (8.3)	1.75	1.06
		TTM	5 (55.6)	1 (11.1)	4 (13.3)	3 (33.3)	2.11	1.45
		Total	16 (53.3)	6 (20.0)		4 (13.3)	1.87	1.11
Q3	Physically and mentally I feel good.	MSS	1 (11.1)	1 (11.1)	4 (44.4)	3 (33.3)	2.87	1.01
		BA	1 (8.3)	4 (33.3)	4 (33.3)	3 (25.0)	2.75	0.97
		TTM	2 (22.2)	5 (16.7)	4 (44.5)	3 (33.3)	2.89	1.16
		Total	4 (13.3)		12 (40.0)	9 (30.0)	2.87	1.01
Q4	A family medical reason requires my attention.	MSS	2 (22.2)	1 (11.1)	4 (44.4)	2 (22.2)	1.67	0.99
		BA	10 (83.3)	2 (16.7)	1 (11.1)	2 (6.7)	1.17	0.39
		TTM	7 (77.8)	1 (11.1)	5 (16.7)		1.33	0.71
		Total	19 (63.3)	4 (13.3)			1.67	0.99
Financial Considerations								
Q5	I cannot afford tuition for this program.	MSS	1 (11.1)	4 (44.4)	3 (33.3)	1 (11.1)	2.40	0.86
		BA	1 (8.3)	3 (25.0)	7 (58.3)	1 (8.3)	2.67	0.78
		TTM	2 (22.2)	6 (66.7)		1 (11.1)	2.00	0.87
		Total	4 (13.3)	13 (43.3)	10 (33.3)	3 (10.0)	2.40	0.86
Q6	Additional program fees, in addition to tuition, made this program unaffordable.	MSS	2 (22.2)	5 (55.6)	1 (11.1)	1 (11.1)	2.18	0.95
		BA	4 (33.3)	3 (25.0)	3 (25.0)	2 (16.7)	2.25	1.14
		TTM	2 (22.2)	4 (44.5)	3 (33.3)	3 (10.0)	2.11	0.78
		Total	8 (26.7)	12 (40.0)	7 (23.3)		2.17	0.95
Q7	An employment opportunity outweighs the benefits of school at this time.	MSS	4 (44.4)	3 (33.3)	1 (11.1)	1 (11.1)	2.00	1.14
		BA	4 (33.3)	5 (41.7)	1 (8.3)	2 (16.7)	2.08	1.08
		TTM	5 (55.6)	1 (11.1)	1 (11.1)	2 (22.2)	2.00	1.32
		Total	13 (43.3)	9 (30.0)	3 (10.0)	5 (16.7)	2.00	1.11

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Change of Enrolment Survey Items,
Frequencies, Percentages, Mean, and Standard Deviation

			This is not me at all			This definitely applies to me		
	Item	**Group**	**1**	**2**	**3**	**4**	**M**	**SD**
Q8	Money has not been a problem for me.	MSS	3 (33.3)	3 (33.3)	3 (33.3)		2.03	0.77
		BA	2 (16.7)	4 (33.3)	6 (50.0)		2.33	0.78
		TTM	3 (33.3)	6 (66.7)	9 (30.0)		1.67	0.50
		Total	8 (26.7)	13 (43.3)			2.03	0.77
Q9	My commute to College takes too much time.	MSS	2 (22.2)	3 (33.3)	4 (44.4)		1.90	0.96
		BA	6 (50.0)	4 (33.3)	2 (22.2)	2 (16.7)	1.83	1.12
		TTM	5 (55.6)	2 (22.2)	6 (20.0)	2 (6.7)	1.67	0.87
		Total	13 (43.3)	9 (30.0)			1.90	0.96
Q10	The program does not match my career aspirations.	MSS	4 (44.4)	3 (33.3)		2 (22.2)	1.73	0.98
		BA	8 (66.7)	3 (25.0)	2 (22.2)	1 (8.3)	1.50	.0.91
		TTM	4 (44.5)	3 (33.3)	2 (6.7)	3 (10.0)	1.78	0.83
		Total	16 (53.3)	9 (30.0)			1.73	0.98
College Experience Considerations								
Q11	I thought I would make more friends while at College.	MSS	4 (44.4)	2 (22.2)	2 (22.2)	1 (11.1)	2.17	1.09
		BA	4 (33.3)	4 (33.3)	2 (16.7)	2 (16.7)	2.17	1.12
		TTM	2 (22.2)	4 (44.4)	1 (11.1)	2 (22.2)	2.33	1.12
		Total	10 (33.3)	10 (33.3)	5 (16.7)	5 (16.7)	2.17	1.09
Q12	The quality of instruction is not what I thought it would be	MSS	2 (22.2)	5 (55.6)	3 (33.3)		2.10	0.80
		BA	3 (25.0)	5 (41.7)	3 (25.0)	1 (8.3)	2.17	0.94
		TTM	2 (22.2)	4 (44.4)	2 (22.2)	1 (3.3)	1.89	0.78
		Total	7 (23.3)	14 (46.7)	8 (26.7)		2.12	0.80
Q13	I have lost interest in the subject matter.	MSS	2 (22.2)	5(55.6)	1(11.1)	1 (11.1)	2.03	0.82
		BA	2 (16.7)	7 (58.3)	2 (16.7)	1 (8.3)	2.17	0.84
		TTM	3 (33.3)	4 (44.4)	1 (11.1)	2 (6.7)	1.75	0.71
		Total	7 (23.3)	16 (53.3)	4 (13.3)		2.03	0.82
Q14	The subject matter in this program is not challenging enough for me.	MSS	2 (22.2)	5 (55.6)	2 (22.2)		2.20	0.80
		BA	2 (16.7)	5 (41.7)	4 (33.3)	1 (8.3)	2.33	0.89
		TTM	2 (22.2)	3 (33.3)	4 (44.5)	1 (3.3)	2.22	0.83
		Total	6 (20.0)	13 (43.3)	10 (33.3)		2.20	0.81

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Frequencies, Percentages, Mean, and Standard Deviation

			This is not me at all			This definitely applies to me		
	Item	**Group**	**1**	**2**	**3**	**4**	**M**	**SD**
Q15	I am considering transferring to another program at Holland College.	MSS	6 (66.7)	1 (11.1)	2 (22.2)		1.77	1.01
		BA	6 (50.0)	3 (25.0)	3 (25.0)	1 (8.3)	1.75	0.87
		TTM	5 (55.6)	1 (11.1)	1 (11.1)	1 (11.1)	2.00	1.32
		Total	17 (56.7)	5 (16.7)	6 (20.0)	2 (6.7)	1.77	1.01
Q16	I am considering transferring to a different post-secondary institution.	MSS	6 (66.7)	1 (11.1)	1 (11.1)	1 (11.1)	1.67	0.99
		BA	8 (66.7)	3 (25.0)	1 (8.3)	1 (11.1)	1.42	0.67
		TTM	5 (55.6)	4 (13.3)	3 (33.3)	2 (6.7)	2.00	1.23
		Total	19 (63.3)		5 (16.7)		1.67	0.99
Q17	I wish I could remain in my program.	MSS	2 (22.2)	4 (44.4)	1 (11.1)	2 (22.2)	2.53	1.04
		BA	1 (8.3)	6 (50.0)	3 (25.0)	2 (16.7)	2.50	0.91
		TTM	1 (11.1)	4 (44.4)	4 (13.3)	4 (44.4)	2.78	1.20
		Total	4 (13.3)	14 (46.7)		8 (26.7)	2.53	1.04
Q18	Courses were not offered at a time suitable for me.	MSS	4 (44.4)	4 (44.4)		1 (11.2)	2.03	0.85
		BA	2 (16.7)	8 (66.7)	2 (16.7)	1 (3.3)	2.00	0.60
		TTM	3 (33.3)	12 (40.0)	6 (66.7)		2.33	1.00
		Total	9 (30.0)		8 (26.7)		2.03	0.85
Q19	I do not feel academically prepared for this program.	MSS	1 (11.1)	6 (66.7)	2 (22.2)		2.17	0.87
		BA	2 (16.7)	9 (75.0)	2 (6.7)	1 (8.3)	2.00	0.74
		TTM	2 (22.2)	4 (44.5)		3 (33.3)	2.44	1.24
		Total	5 (16.7)	19 (63.3)		4 (13.3)	2.17	0.87
Q20	I am not making meaningful connections with my teachers.	MSS	3 (33.3)	3 (33.3)	2 (22.2)	1 (11.1)	1.83	1.02
		BA	7 (58.3)	3 (25.0)	2 (16.7)	2 (22.2)	1.58	0.79
		TTM	5 (55.6)	2 (22.2)	4 (13.3)	3 (10.0)	1.59	1.27
		Total	15 (50.0)	8 (26.7)			1.83	1.02

Note: MSS: Medical Support Services students
BA: Business Administration students
TTM: Tourism and Travel Management students
Total: Total of all three student groups
Response categories are represented in raw scores with percent in brackets
M (Mean), SD (Standard Deviation)
SD has been rounded to 2 decimal places.

likely influenced by the pseudo sample combined with a small sample size.

Inferential Statistical Analysis

To explore differences in response patterns between students enrolled in the Business Studies department in each of the three programs (Business Administration, Medical Support Services, and Tourism and Travel Management) and the construct, a one-way analysis of variance (ANOVA) was performed. Given the multi-dimensional nature of the construct, a subsequent ANOVA was performed using the three sub-constructs, (i.e., wellness, finance, and college experience) in order to explore whether one or more of these sub-constructs was more influential in identifying reasons (i.e., due to finance, wellness, or college experience) students changed programs. There were no significant differences (see Table 2 and Table 3, below) reported between Business Studies and the construct or the sub-constructs.

DISCUSSION AND IMPLICATIONS

Although only a small sample of pseudo-students and programs were included in the pilot for this developmental evaluation, it was a useful analysis in the development of the questionnaire as well as the utility of examining differences between college programs. With respect to questionnaire development, the fairly wide variance in responses in the pilot study suggested that the items were functioning well and there was no need to re-word or create new items. In terms of demographic variables, in hindsight, we remain curious as to whether males changed programs more frequently than females. Hence, a case can be made to examine differences in program changes based on gender. Although our pilot sample did not vary based on the current academic year, it is possible that there may be more changes in one year over another. Hence, including the academic year remains an important independent variable. As an aside, we were cautious of including a wash basin full of demographic characteristics if we could not thoroughly rationale a case for including the independent variable.

This study has proven beneficial to advancing the questionnaire in this area. This developmental evaluation served to create a realistic survey aimed at exploring why students decide to leave a post-secondary program. Acknowledging teachers and administrators have been aware of numerous reasons why students decided to leave a program for many years, a changing student demographic may influence the decision to leave a program in different ways than in the past. Therefore, responsive governance of post-secondary institutions should strategically align with methodologies aimed at gathering information in new ways. To further build innovation as to how colleges may respond to new student populations, this pilot study documented the creation and testing of an alternative strategy for gathering data. We have made a case for post-secondary institutions to be responsive and competitive in the 21st century education market as it moves from a commodity-based, fee-for-service orientation (i.e., courses for tuition) to more of a personalized experience for the student within the context of their own life world.

Table 2
One-Way Analysis of Variance (ANOVA)
(Change in Enrollment vs Program)

TTLConstruct	df	Mean Square	F	Sig.
Between Groups	2	0.15	0.192	.826
Within Groups	26	0.08		
Total	28			

Note: TTLConstruct (Total of Survey Items)

Table 3
One-Way Analysis of Variance (ANOVA)
(Change in Enrolment by subconstruct vs. Program)

	df	Mean Square	F	Sig.
TTLWellness				
Between Groups	2	0.451	2.315	.118
Within Groups	27	0.195		
Total	29			
TTLFinance				
Between Groups	2	0.263	0.860	.434
Within Groups	27	0.306		
Total	29			
TTLExperience				
Between Groups	2	0.771	0.715	.499
Within Groups	26	0.108		
Total	28			

Note: TTLWellness (Total of Wellness Related Items)
TTLFinance (Total of Finance Related Items)
TTLExperience (Total of College Experience Items)

This study illuminated an administrative opportunity to investigate creative strategies to increase faculty involvement with students beyond assigned courses. This was because a number of survey items focussed on the experiential reasons for leaving a program which stemmed from the teacher-student relationship. In doing so, post-secondary institutions could build upon the opportunity to support student growth outside of the classroom thus increasing the manner in which students develop as citizens in their communities. In fact, an opportunity exists to add additional items based on the support teachers provide to their students or create an instrument which solely focus on the student-teacher relationship. Finally, it is important to consider that many of the experiential reasons as to why a student may decide to leave a program could be immediately addressed by faculty and administrators. For example, through in-service training, colleges could place more emphasis on building the student advisory role for faculty from the perspective of activities taking place both inside and outside of the classroom. Such connections may empower faculty, as a front-line resource, to ensure timely interventions in advance of a student deciding to leave their program.

CONCLUSION

With the reality of a shrinking secondary student population on Prince Edward Island and other maritime provinces (Maritime Provinces Higher Education Commission, 2007), an institution such as Holland College must accept the reality of a changing student demographic and commit to new processes in addressing student attrition. As post-secondary institutions redefine their mandates (Northern Alberta Institute of Technology, 2011) and welcome new applicants in order to offset shrinking traditional enrollments, they will undoubtedly face new forms of student attrition over the next decade. Confirmed through the literature, student attrition can be connected to meaningful relationships made between teachers who are available and approachable (Crosling, Heagney, & Thomas, 2009). By celebrating the fact that knowledge construction leads to lifelong learning for students, this developmental evaluation may inform institutional responses to a new wave of student attrition through the voice of the student as opposed to the faculty member. In doing so, post-secondary institutions would take an innovative approach in leading their own investigations into the management of student attrition. This study presented a new way to investigate attrition from student perspectives of personal wellness, finances, and what an institution has, or has not, undertaken to support their individualized learning journey. Employing a developmental evaluation approach we demonstrated that data could be gathered and used to inform administrative strategies aimed at supporting the needs of the student and the faculty member. This study demonstrated the significant level of support students required as their life experiences blended into their time at college.

This study has contributed to the volume of research regarding post-secondary student attrition in three ways. Firstly, one Atlantic Canadian community college has been provided an opportunity to analyze student attrition in a manner which did not exist prior to the launch of the study. Secondly, other post-secondary institutions may wish to create similar instruments to track and respond to student attrition. In doing so, an opportunity exists for institutions to create research partnerships and learn from each other therefore expanding the academic body of knowledge concerning post-secondary student attrition. Lastly, this developmental evaluation presents an opportunity for further student attrition research between traditional college students and new institutional populations such as career changers, degree completers, and those seeking specific courses for personal reasons. Acknowledging an absence of information in the literature and the need to validate this instrument; further research into this emergent attrition dynamic should be undertaken in preparation for the next decade of post-secondary learning.

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Appendix A
Change of Enrollment Survey

Thank you for taking a few minutes to complete this Change of Enrollment Survey. The information you provide is completely anonymous and in no way can be used to identify you. This survey is a tool used by the Program Manager's Office to inform and plan departmental activities aimed at ensuring the best possible learning and teaching environment for students and staff in the Business, Tourism, and Sport & Leisure Department at Holland College.

My Program _____ I am a full-time student ___ Current Academic Year _____

I am a part-time student ___

Please indicate the extent to which each statement applies to you.	**This is not me at all** **1**	**2**	**3**	**This definitely applies to me** **4**
Section 1: Wellness Considerations				
I feel mentally overwhelmed as a student in this program.				
A personal medical reason requires my attention.				
Physically and mentally I feel good.				
A family medical reason requires my attention.				
Section 2: Financial Considerations				
I cannot afford the tuition for this program.				
Additional program fees, in addition to tuition, made this program unaffordable.				
An employment opportunity outweighs the benefits of school at this time.				
Money has not been a problem for me.				
My commute to College takes too much time.				
This program does not match my career aspirations.				
Section 3: College Experience Considerations				
I thought I would make more friends while at College.				
The quality of instruction is not what I thought it would be.				
I have lost interest in the subject matter.				
The subject matter in this program is not challenging enough for me.				
I am considering transferring to another program at Holland College.				
I am considering transferring to a different post-secondary institution.				
I wish I could remain in my program.				
Courses were not offered at a time suitable for me.				
I do not feel academically prepared for this program.				
I am not making meaningful learning connections with my teachers.				

Please use the reverse of this page to provide additional information you feel is important to share in regards to your decision to change your enrollment status at Holland College.

We are truly sorry that you are leaving your program. If there is anything we can do to help, please do not hesitate to contact Tim McRoberts at tmcroberts@hollandcollege.com or (902) 566-9612. Thank You.