
Co-operative Education and Student Recruitment, Engagement and Success: Early Findings from a Multi-Institutional Study in British Columbia

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Abstract

This paper represents the early findings of an original survey of Co-operative Education students across 12 post-secondary institutions in British Columbia. The survey and this paper were undertaken collaboratively by a team spanning 5 BC Universities, Colleges, and Institutes. The study explores the role Co-operative Education experiences play in students' decisions to attend a post-secondary institution, complete their degrees, and their engagement in the educational process. Informed by George Kuh's work on Student Engagement and the 2008 NSSE survey, it concludes that co-operative education plays an important role in enhancing student engagement and success and suggests the value of further exploring the role workplace learning programs can have in student success.

Keywords: Co-operative Education Program, Student Engagement, Student Experience, Student Recruitment and Retention, Student Success

Administrators have found that the recruitment and retention of students attending post-secondary institutions in North America has become an increasingly important agenda item in recent years. Strategic enrollment management approaches have been adopted in response to a changing demographic landscape that make recruitment and retention of students to the post secondary environment increasingly competitive. Savvy administrators are looking for programs, strategies, and services that enhance student engagement¹ and ultimately student success², as well as programs that give their institution a competitive edge in recruitment.

This study examines the model of Co-operative Education³ (co-op) with respect to its role in institutional recruitment and retention and its role in student engagement and academic enhancement by analyzing data from a survey of British Columbia (BC) Co-op students in 12 public post-secondary institutions in BC undertaken by the Research Committee of the Association for Co-operative Education-BC/Yukon in Fall, 2008.

Despite a high proportion of co-op programs in BC post secondary institutions and growing participation within Canada in both the National Survey on Student Engagement (NSSE) and the College Survey on Student Engagement (CSSE) assessments, co-op has not been specifically studied, vis-a-vis, its contribution to enhancing the student experience⁴. This study seeks to begin to address this gap by exploring the role that co-op-based workplace learning can play in recruitment, retention, and the student experience.

This research presented unique opportunities and challenges as a result of the newness of the area studied (no specific existing measurement tools), the large number of institutions involved, and the desired connections to the current Student Success and Strategic Enrolment Management institutional discourse. As a result, the project team made decisions to utilize a recognized theoretical framework (i.e., NSSE) to guide the format and language used in our survey questions, to engage all interested institutions in the project (resulting in collaborating with 12 provincial colleges, universities, and institutes), and to model our commitment to research in the field by sharing early findings widely.

We also experienced many learning outcomes that extended beyond the research questions including developing a better understanding about the limitations of our survey tool, the challenges of conducting research in this field, the process of collectively writing up our early findings and the limitations set by our volunteer resources on our ability to conduct further, deep level analysis on the data. In acknowledgment of this latter limitation we have chosen to present the results using general descriptive statistical analysis. It is our belief that these early findings highlight many interesting and significant issues in the field that warrant further discussion amongst both practitioners and researchers. This paper presents those issues which emerged after a first level of descriptive analysis in hopes of informing ongoing practitioner conversations and provoking further research investigations.

1 **Student engagement** refers to students' participation in educationally effective practices, both inside and outside the classroom. It is characterized by two critical features: 1) the amount of time and effort students put into their studies and other educational activities and 2) how an institution deploys its resources, organizes curriculum, and supports learning with services and programs that lead to experiences and desired outcomes such as persistence, satisfaction, success, and completion. A common measure of student engagement in post-secondary education in North America is the National Survey of Student Engagement, or the NSSE.

2 **Student Success** refers to a student's academic success or remaining in "Good Academic Standing" at their institution as well as their sense of having met their overall goals for attending the institution.

3 **Co-operative Education Program** means a program which alternates periods of academic study with periods of paid work experience in appropriate fields of business, industry, government, social services and the professions.

4 **Student Experience** refers to the overall view a student has regarding their time at a post secondary institution. This relates to both classroom and non-classroom based experiences, the students' sense of value, and connectedness to the University. Student experiences have clear implications for student recruitment and retention, institutional reputation, and alumni support.

Study's Purpose and Objectives

The purpose of this study was to investigate whether a relationship existed amongst enrollment, engagement, and retention issues in post-secondary education and the participation of students in co-op programs. The study had three main objectives:

1. What role does co-op play in a student's decision to attend an institution (recruitment) and in their level of engagement with their institution (retention)?
2. What factors influence a student's decision to participate in a co-op program?
3. How does participation in a co-op program relate to student engagement?

Literature Review

Survey questions were informed by a review of key literature regarding student engagement, recruitment and retention. The following themes emerged: 1. engagement, 2. recruitment, 3. persistence/retention.

Engagement. Student engagement is a key element in post secondary education and is generally considered to be among the better predictors of learning and personal development (Carini, Kuh, & Klein, 2006; Kuh, 2001). Kuh (2003) demonstrated that the more students study a subject, the more they learn about it; the more they practice and get feedback on their performance, the more adept they become. Thus, he established a direct correlation between student engagement and educationally purposeful activities (Kuh, 2001; Kuh, 2003; Kuh, Gonyea, & Palmer, 2001). Parscarella (2001) found that what students gain from their post secondary experience depends on the quality of effort students devote to educational activities and, as such, educationally purposeful activities contribute to overall student engagement in their undergraduate experience.

The NSSE, an instrument designed to gauge the level of student participation in post secondary institutions, established five benchmarks for student engagement:

1. Level of academic challenge,
2. active and collaborative learning,
3. enriching educational experiences,
4. student faculty interaction,
5. a supportive campus environment (Kuh, 2003).

Kuh, Kinzie, Schuh, Whitt, and Associates (2005) suggested that enriching educational experiences, including internships and field work, provide students with opportunities to synthesize, integrate and apply their knowledge. Brint, Cantwell, and Hanneman (2008) found experiences that focus on activities outside of the classroom contribute to personal and intellectual growth and thus enhance student learning. Opportunities such as volunteer work, student clubs, community service, and co-op experiences are all examples of enriching activities.

For example, Nasir, Pennington, and Andres (2004) indicated that classroom learning is enhanced by students who have spent time in the workplace. Brint et al. (2008) found that study enhancement activities, including internships, mattered greatly to students. Hu and Kuh (2002) found that what students think about the utility of their studies positively affects their interaction with different groups at an institution and positively affects their overall engagement. It appears that hands-on learning enables students to engage with concepts that they learn in the classroom and apply these to real-world situations.

Recruitment. There is limited research on what factors influence students to choose programs that offer a co-op option. Martin (1997) found that the outreach and recruitment program of an institution is helped by the existence of a co-op program. Skledar, Martinelli, Wasicek, Mark, and Weber (2009) found that the vacancy rate in the pharmacist program at the University of Pittsburgh Medical Centre decreased from 27% to 4% with the introduction of an internship program. Somers (1986) collected data that indicated co-op programs attract students and those students tend to persist to graduation. Although it is somewhat apparent that participating in co-op can influence students' choices to remain in school, there has been a lack of evidence of the role of experiential education in recruiting students to post-secondary programs.

Persistence/Retention There is some evidence that suggests students who are involved in educationally purposeful activities are more likely to persist in their studies through graduation. Students involved in *educationally meaningful activities* such as co-op, internships, and other experiential learning tend to demonstrate higher levels of persistence, and ultimately higher levels of completion (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007; Somers 1986). More specifically, Avenoso and Totoro (1994) found a relationship between early co-op participation and student retention⁵. And Tinto (1988) suggested that *front loading* institutional action in the form of educationally enhancing activities may be a strategy to reduce the early incidence of student departure. While no specific studies examining co-op and non-co-op students with respect to retention are found, it is reasonable to assume that programs such as co-op, which intentionally engage students in new learning environments, have a positive impact on student academic persistence and completion.

Method

This study looked at all registered co-op students attending a public post-secondary institution in BC. To be included in the study: 1) institutions had to have received ethics approval for participation, 2) institutions needed to have representation within the membership of the Association of Co-op BC/Yukon, and 3) participants had to be registered as co-op students by their schools. Twelve institutions participated and resulted in a potential sample size of 14,000. The study utilized a convenience sample and chose to reject the use of a control population. The researchers determined a non-co-op control group would result in unusable data given the design nature of the survey instrument.

⁵ **Student Retention** describes the flow of students through the university over a set period of time and is typically measured in two different ways: 1. the number of degree completers versus non-completers, and 2. the number of persisters vs. drop outs from term to term, year to year.

Research to date has not explored the specific relationship between the model of co-op and student success indicators. In the absence of any pre-existing instrument, and with most institutions familiar with the NSSE framework as a measure of student engagement, the researchers opted to design an original survey instrument. Forty-two questions concerning students' perception of their academic engagement and program persistence were informed by the survey format of George Kuh and the NSSE (2008). Survey questions were framed in a typical affirmative/negative format, included demographic data and utilizing a 5 point Likert scale.

Prior to inclusion in the study and receipt of the survey tool, each member institution was required to provide the researchers with evidence (in the form of an email response) of their institutions' research ethics approval. Of the 15 potential institutions, 12 obtained ethics approval prior to the deadline. Upon confirmation of ethics approval participating institutions were provided, by email, a preamble that described the research study and a link to an electronic survey tool. Participating institutions were diverse, and ranged from large research intensive universities, to smaller colleges and technical institutes.

During the Fall of 2008, participating institutions identified a contact within each co-op program who distributed the preamble and survey to their registered co-op students; students were offered an incentive of \$25 by their institution to complete the survey. Students were given 14 days of access to complete the on-line survey and were allowed to participate one time only. Students choosing to participate were provided with an informed consent form at the entry point to the on-line survey. All responses were anonymous. This approach yielded an overall response of 2,737, a rate of 19%.

All data was gathered electronically using the Vovici system, a web based on-line survey tool. The data was stored on a secure Canadian web server location, not at the participating institutions. All student responses were anonymous with only the subjects' attending institution identified. Independent variables of the study were identified as the number of work terms completed, institution attended, gender, domestic, or international status. The Vovici system was queried for descriptive statistical reports of the demographic data and surface statistical analysis of all other survey data.

This article reports on the early findings resulting from this survey level analysis.

Early Findings

Preliminary analysis of the data consisted of descriptive statistics and frequency distributions enabling the researchers to establish a general understanding of the student responses. In addition, many questions had the option for respondents to add comments. These comments were transcribed and themed to provide additional findings. See Appendix A for a demographic breakdown of respondents including: gender, type of credential they are seeking, and number of work terms completed at time of completing the survey.

Early analysis of the data yielded four initial findings. Specifically, participation in cooperative education:

1. Clarifies academic pathways,
2. links school and career,
3. provides “educational enhancement”,
4. assists in recruitment to the institution and is influenced by several factors.

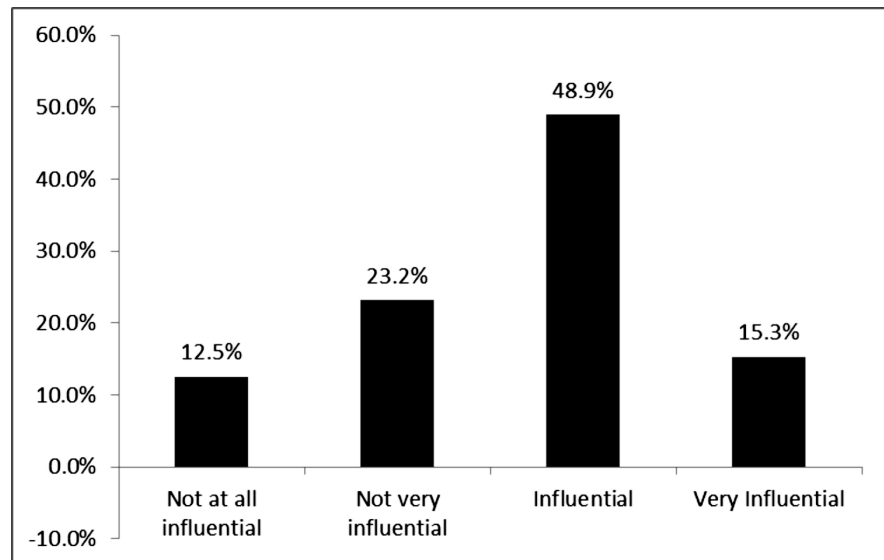
A majority of responses from co-op students demonstrated that work experience either confirmed their academic choice or provided new learning which caused them to change their academic direction.

Participation in Co-op programs clarifies academic pathways. Co-op practitioners have long recognized the role that participation in a co-op program can play with respect to a student’s subsequent academic program choices. This research provided ample evidence to support such a claim. A majority of responses from co-op students demonstrated that work experience either confirmed their academic choice or

provided new learning which caused them to change their academic direction. As shown in Figure 1, over 64% of respondents indicated that their co-op experience was either influential or very influential with respect to affecting their academic choices.

Figure 1.

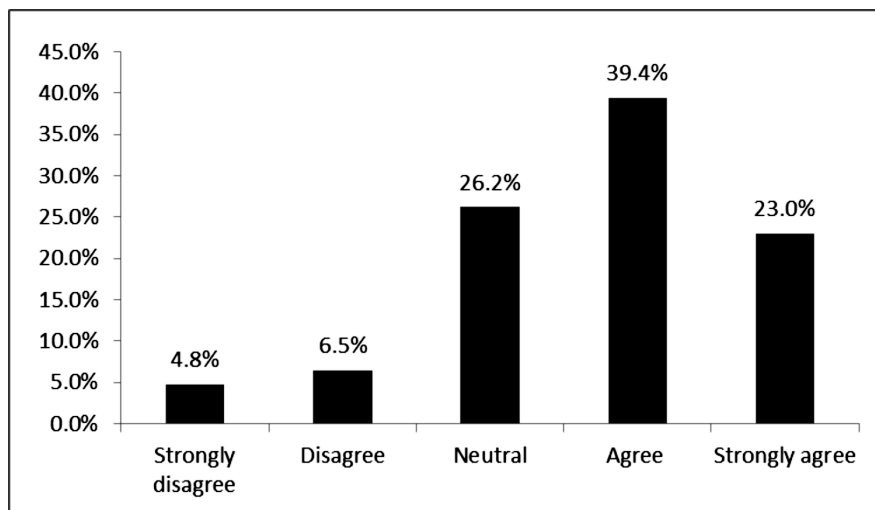
To what extent have your experiences in Co-op influenced you in your choice of academic area of study?



One student commented, “I changed majors after my first co-op, although I had been considering it prior to starting my co-op”. Another student found that their work term clarified what profession they did not want to pursue: “[my co-op work term] made me realize that engineering is not my passion, and will likely not be my choice of career in the long term.” These results suggest that students who participate in work terms that are related to their studies or career options will be more engaged in the educational experience and are more likely to persist through to graduation.

Further student comments ranged from “Co-op has helped me figure out my educational goal for the future” to more specific comments such as “Working in a world company in my last co-op semester has prompted me to take more foreign language courses because I realized it was such an asset . . . in a diverse and multi-cultural work force.” Respondents’ participation in co-op programs either confirmed their academic choices — “[Co-op] reinforced my desire to get at least a business major”— or changed them. Results from the question regarding the role of co-op in confirming selection of academic program shows that 62.4% of respondents indicated that they agreed or strongly agreed that co-op confirmed their selection of academic program (see Figure 2).

Figure 2.
My participation in co-op has confirmed my selection of academic program or area of study.

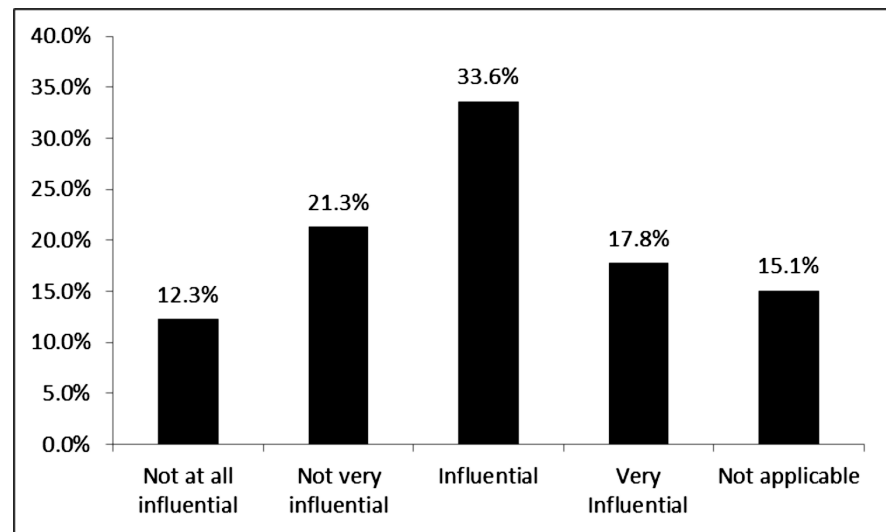


Of interest to both academic and co-op faculty and staff is the relationship between participation in co-op studies and a decision whether or not to pursue graduate studies. As Figure 3 shows, 51.4% of respondents stated that their co-op experience was influential or very influential in their decision to pursue graduate studies. While this could be interpreted to mean that students were either positively or negatively influenced to proceed to graduate studies, qualitative responses were positive in nature. Several respondents added that their co-op experiences either inspired them to attend graduate school (for example, one student

wrote “[Co-op] has strongly confirmed my choice of academic program and shown me a ton about potential graduate directions”) or clarified which graduate programs were of interest (“Although I am still undecided on exactly which field I want to go into for graduate studies, I’m pretty positive it will be directly related to medical physics . . . I had two Co-op jobs in this field”).

Figure 3.

To what extent have your experiences in Co-op influenced you in your choices for post graduate studies?



Together, these three findings can be seen as examples of how participation in work terms encourages students to be engaged in their educational experience and clarify their academic pathways

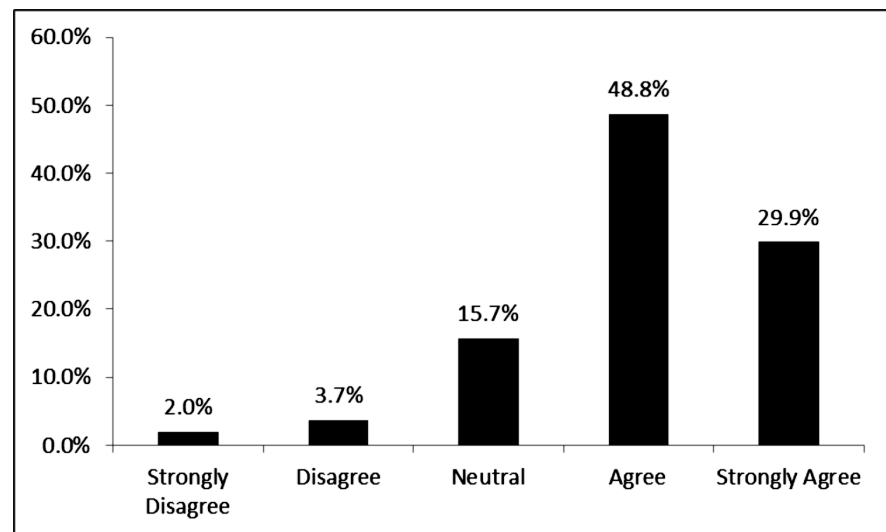
Participation in co-op helps link professional and academic careers. One of the major claims of co-op programs is that co-op students link the world of academia to the world of work, providing advantageous opportunities for students to link their classroom studies to professional careers. Of the respondents in this survey, 78.7% agreed or strongly agreed with this claim.

According to Pascarella and Terenzini (1991), work experience that occurs during a student’s post-secondary experience and relates to their studies has a positive impact on career choice. The career decision process is enhanced by working in an environment where a student can interact daily with the duties of the field they are considering. Pooley (2006) viewed the co-op experience as one where a student can “taste test” a field to see if it is what they want to continue in. Rodger et al. (2007) suggested that students who participate in workplace education work terms before they graduate are more likely to have career goals that are closely aligned with the opportunities in the organization for which they are working. This is

further corroborated by a recent survey by the Canadian survey-based market research group Ipsos Reid (2010), which found that 79% of co-op grads felt that their co-op program influenced at least somewhat their decision about what career they would choose. Results of the study can be seen in Figure 4.

Figure 4.

Co-op helped me understand the link between academics and the real world



Statements such as “I feel more confident in my classes and can see more clearly how the different aspects of my education are actually preparing me for the *real world*,” and “Co-op has given me insight about what it is to work in the real world, and how different that is from school”, underscore the nature of these connections. Additionally, student comments repeatedly articulated the differences between students’ academic and co-op experiences, indicating the important role co-op participation plays in students learning — comparing and contrasting the different kinds of knowledge that are gained and valued in each setting.

It would appear that participation in co-op programs serves to augment those links and to align students’ academic and career goals, thereby enhancing overall student success.

For example, one student wrote “consulting engineering work is almost nothing like the engineering coursework. Engineering coursework is far too concerned with digital systems and theory.” Another student reflected that “as clichéd as it sounds, the ‘real world is different from what you learn in the classroom. Office politics and dealing with angry customers is not something you can learn from text books.” Both the students and the student

retention literature reinforce the importance of such connections and suggest the importance of aligning programs of study and future career goals as a key strategy for student academic

success and completion (Tinto, 2001). It would appear that participation in co-op programs serves to augment those links and to align students' academic and career goals, thereby enhancing overall student success.

Participation in Co-op serves to enhance the educational experience. Of significant interest to the researchers in this study was gaining a better understanding of the impact of co-op on academic engagement and learning. As one might expect, student engagement constitutes a constellation of institutional processes that add value to student learning. Participation in programs such as co-op may not only provide for important complementary learning experiences but also impact upon a learner's engagement when they return to campus. Students who participate in educationally enriching experiences outside of the classroom where they are exposed to different practices, beliefs, and theories tend to have a higher level of academic engagement (Brint et al., 2008; Kuh et al., 2005).

This survey asked four questions specific to the notion of engagement and provided an opportunity for students to add their comments. Overall there was a general sense that participation in co-op enhanced students' levels of academic engagement, as well as their classroom experiences once they returned to campus. As Figure 5 shows, 64% of respondents agreed or strongly agreed that participation in co-op helped them analyze theories, ideas, and experiences gained in the classroom. Over 70% of respondents stated that co-op experiences helped them assess and judge the importance of information received in the classroom and 68% thought it helped them apply concepts or theories learned in the classroom to practical problems.

One student commented, "sometimes I learn something in class and I may not get it because the concepts are just words to me. I'm working at a company right now and everything falls into place and makes a lot more sense. The information is more meaningful." It can be suggested, therefore, that participating in Co-op experiences helps students better learn once they return to the classroom and use their classroom-based learning well in workplace contexts.

Figure 5.
Please indicate to what extent you agree or disagree with the following workplace-based statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Apply concepts or theories I learned in the classroom to new situations or practical problems	3.0%	7.9%	19.1%	39.3%	28.7%	2.0%
Assess and judge the importance of information I received in the classroom	2.6%	6.1%	19.4%	42.0%	28.4%	1.6%
Analyze theories, ideas, or experiences I learned or gained in the classroom	3.4%	10.3%	20.2%	44.3%	20.0%	1.8%

The researchers also analyzed comments specific to how students felt their work terms related to their classroom learning. The 112 related comments were sorted into five distinct themes:

1. Classroom not teaching real world skills (44%).
2. My work term helped theories in the classroom make sense (24%).
3. Jobs not linked to any course work (17%).
4. Skills learned are valuable but not directly relevant (10%).
5. I observed that the workplace has a different learning style (5%).

In the first theme, many students reported a disconnect between what they were learning in the classroom and what they reported needing in the workplace. In other instances, students found that the experience in the workplace helped them better understand the theory they had learned in the classroom. The third theme related to a disconnect between the work term and their academic program which was continued in the fourth theme where students valued the skills gained on the work term, but did not see the connection to skills needed in the classroom. Finally, students noted differences between learning in the workplace and learning in the classroom.

Additionally students often recounted how the co-op experience allowed them to understand a concept learned in an academic context in a more meaningful way. Examples include: “I learned and understood concepts during work that I couldn’t understand in school” and “Co-op helped me become more outgoing and confident in my knowledge. It helped me see how textbook knowledge is different than applied knowledge, and that you must have a solid base of textbook knowledge in order to succeed and apply it properly.” A particularly eloquent student summed up his or her sense of how the co-op experience allowed him or her to gain a perspective critical to learning:

Going to a work term as an intern, you enter with nothing but your classroom-based ideas as your foundation. Although you may be able to compare some theories, ideas or experiences from previous work terms, an intern student generally does not have enough experience to judge importance of information. Generally information is thought to be overly valuable. However, you do use the theories and ideas you learned from school synchronously with new knowledge in order to apply them to the new situations and problems at work.

Literature in the area of student success suggests there is a reasonable correlation between student engagement and academic persistence (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007). It is apparent that the more students participate in educationally enriching activities, the better chance they will persist through their studies and complete their degree (Kuh, 2003). Avenoso and Totoro (1994) also found a relationship between early co-op participation and student retention. As noted earlier, students who have a clear idea of why they are in school and are involved in related activities (such as co-op) also tend to persist in their studies more

than those who are not as engaged (Kuh et al., 2007). Overall, it can be suggested that participation in co-op enhances classroom learning, facilitates a student’s engagement, and by extension, the likelihood that they will persist and complete their academic programs.

As the NSSE framework guided these survey questions, the researchers also looked at the ways in which participation in co-op may or may not influence other co-curricular choices that are known to be positively linked to student engagement and success. To that end students were asked about their participation in co-op and how this choice influenced other co-curricular choices. These results were split, as shown in Figure 6, with approximately 50% of respondents indicating that Co-op participation had encouraged them to become more engaged outside of the classroom and 50% indicating it had not.

Figure 6.
My participation in Co-op has . . .

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Encouraged my participation in practica, internships, field experiences, and other forms of learning outside of the regular academic classroom	5.6%	12.7%	33.0%	39.0%	9.7%
Influenced me to do community service and/or volunteer work	8.1%	17.9%	40.0%	26.9%	7.1%
Encouraged my participation in co-curricular activities (organizations, campus publications, student government, sports, etc.)	8.2%	19.8%	40.6%	25.0%	6.4%

Examples of student comments include: “Co-op has definitely gotten me more involved in my community,” and “Working for four months away from the classroom does not inspire me to change my habits as either a student or a citizen.”

It appears that participation in co-op serves to enhance the educational experience of many students, an outcome shared by the 2010 Ipsos Reid poll which reported that 84% of Canadians who enrolled in co-op programs felt that their work terms assisted them with the academic learning (Ipsos Reid, 2010).

Co-op and recruitment: To the institutions and into co-op. Several of the survey questions explored the relationship between co-op and institutional recruitment. Two factors addressed include the role that co-op might play with respect to a student’s choice to attend a particular institution and factors affecting a student’s choice to participate in a co-op program if it was not a mandatory part of the student’s academic program.

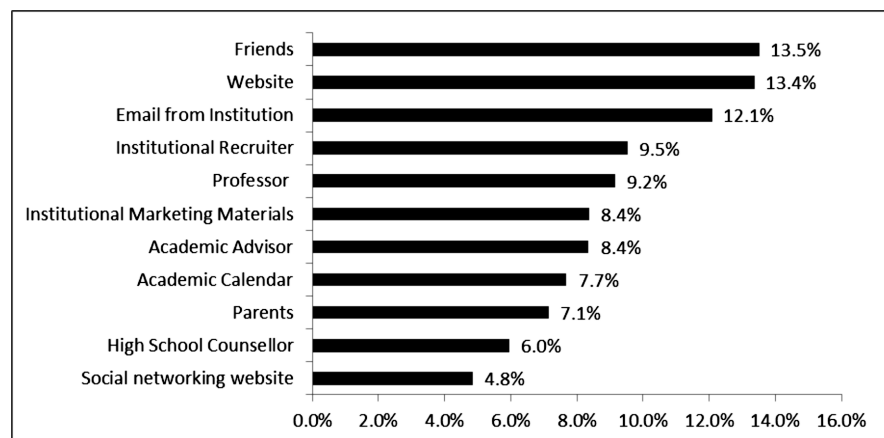
Approximately 50% of respondents indicated that availability of a co-op program was a factor in choosing their post-secondary institution.

Co-op and institutional recruitment. Approximately 50% of respondents indicated that availability of a co-op program was a factor in choosing their post-secondary institution. One student commented, “I specifically came to SFU because they mentioned career jobs that I could attain with my degree. Co-op provided the link between school and career.” Of the respondents who did not consider co-op when selecting their institution, 55% stated they knew about co-op but that it did not influence their choice of school. It is noteworthy that this data was collected in BC, a province where almost all of the public post-secondary institutions offer co-op; therefore, the availability of co-op may not have been a differentiator among the provincial institutions of choice.

Many of the findings indicated that the value proposition of co-op may require further articulation, especially in the case of non-mandatory programs. For those not initially drawn to the institution because of co-op, several factors influenced that decision. Eight percent of respondents were in programs where co-op was mandatory so the choice of institution was based upon the overall academic program (which included co-op) and 10% did not know the school offered co-op options at the time they were choosing a post-secondary institution.

Recruitment into co-op. As seen in Figure 7, when students were asked how they first heard about co-op, many cited friends (13.5%), institutional websites (13.4%), and e-mail from the institution (12.1%). Of interest within the context of the research on millennial students, which indicates a strong parental influence on decision making, only 7.1% of respondents noted parents as their source for information. Additionally, it was somewhat surprising to see social networking sites representing only 4.8% of the overall sources of information. This may be accounted for by the fact that data collection took place in Fall 2008, slightly in advance of most post-secondary institutions fully or effectively utilizing social networking tools such as Facebook and Twitter.

Figure 7.
How did you hear about co-op?



When asked what attracted them to co-op, 95% of respondents noted that they were interested in participating in co-op so as to ensure a “good job” after graduation.

As Figure 8 indicates, when asked what attracted them to co-op, 95% of respondents noted that they were interested in participating in co-op so as to ensure a “good job” after graduation. This is consistent with recent Canadian post-secondary recruitment data which notes that “obtaining a good job” is the single biggest reason cited for pursuing post-secondary education (Donaldson, 2008).

Survey respondents also noted that exploring career options was a close secondary reason for participating in co-op (94%) and “safely” exploring career options ranked third (90%). Interestingly, 85% of students noted that they engaged in co-op in order to “learn a different way,” which speaks to the growing expectation among students for access to more diverse pedagogies such as experiential opportunities, particularly those that are work integrated in nature. Additionally, but less frequently, comments included the promise of better entry level positions upon graduation, opportunity to live in a new place, potential to work with other students, opportunity to hone job search skills, assist in being accepted into graduate school, and help to determine their field of study.

Figure 8.
What attracted you to co-op?

	Unimportant	Less Important	Important	Very Important
The potential to obtain a good job after graduation	1.0%	3.8%	26.8%	68.4%
It could help me find a range of career opportunities related to my field of interest	1.6%	4.4%	35.2%	58.8%
The ability to safely explore career options	2.2%	8.0%	37.8%	52.0%
Access to job opportunities that were only offered through co-op	3.4%	9.4%	37.4%	49.9%
The opportunity to build a network	2.0%	11.4%	38.3%	48.3%
The opportunity to learn in a different way	2.9%	11.9%	41.9%	43.3%
The ability to finance my degree	10.4%	27.9%	30.2%	31.6%
The opportunity to work internationally	21.7%	33.6%	25.4%	19.3%
It could help me improve my marks at school	33.3%	37.7%	20.2%	8.8%

When students were asked what else would have attracted them to co-op, 61% said that receiving academic credit for successful completion of work terms would have been the single most influential factor. As well, 40% cited the inability to end their studies while completing a work term (part of Canadian accreditation requirements) as a barrier to participation. Although survey questions regarding co-op fees did not yield a high percentage of students citing finances as a barrier, further analysis of the student comments suggests that lowering the co-op fee at their institution was desirable.

Conclusions

In conclusion, with respect to participation in co-op and post-secondary students in British Columbia we can state that:

- Participation influences students' academic choices to better align with career choices, thereby enhancing student retention and success;
- participation in a work term has a positive impact on students' academic engagement — an “enriching educational experience” — a contributor to overall institutional student satisfaction and success;
- the ability to participate in Co-op was a factor considered by approximately 50% of Co-op students when they chose their post-secondary institution
- recruitment into optional Co-op programs is greatly influenced by friends, family and institutional web-based outreach;
- more students would consider Co-op if they could obtain credit for work terms towards their academic degree and complete their degree requirements while on a work term.

Implications for Practice

From the early analysis of this research it is evident that participation (including at least one work term) in co-operative education programs in British Columbia contributes to Kuh's notion of an “enriched educational experience”. This in turn has a positive impact on students' academic engagement which is tightly linked to greater levels of student retention and completion. In part, it is apparent that co-op serves to align students' career and academic choices and assists students in making greater connections between their studies and the application of those studies in new environments such as the workplace. By understanding the importance of making these connections early in a student's academic career, student affairs professionals may wish to consider linking with co-op staff/faculty more intentionally with respect to career and academic goal alignment versus simply promoting co-op as a job exploration program. It is interesting to note that in an article in the *Chronicle of Higher Education*, Kuh (2010) calls attention to the benefits of linking workplace learning more tightly to students' degree programs: “it's high time we look for ways to use the work experience to enrich rather than detract from learning and college completion” (para. 3).

Co-operative Education and career services (increasingly now being administered under one umbrella at many institutions) could be more closely linked to the institutional retention agenda and better integrated into *transition* in activities such as orientation and academic planning activities.

Additionally, we know that approximately 50% of students applying to BC institutions do so because there is a co-op option available. Recent research regarding why students pursue post-secondary education indicates that fully 99% of 200,000 students responding to a 2010

academic survey in Canada chose either “career preparation” or “career advancement” as a key reason for attending post-secondary education (Brainstorm, 2010). Recruitment professionals in the area of Student Affairs could consider the potential for fully utilizing co-operative education programs for recruitment purposes. Given findings from this study indicating the important influence family and friends have on the decision to choose a co-op program, one could imagine creative recruitment campaigns that integrate career relevance and family experiences.

Finally, early analysis indicates that many more students would consider participating in co-op programs if they could obtain credit for work terms towards their academic degree and complete their studies while engaging in a co-op term. Professionals in co-op programs may wish to bring these findings to the attention of provincial and/or Canadian accreditation bodies and/or professional associations to inform discussions regarding accreditation criteria. Additionally, leaders of institutions which do not currently award degree relevant credit for co-op courses may want to begin a dialogue with their academic colleagues regarding co-op credit if increased participation in experiential education is a strategic direction they wish to take.

The findings of this study suggest co-op programs can be seen as a critical feature of institutional student retention and engagement strategies.

The findings of this study suggest co-op programs can be seen as a critical feature of institutional student retention and engagement strategies. It appears that students who participate in Co-op are better able to navigate their educational journey as co-op experiences help them determine which courses and programs will lead to the knowledge and skill development they are seeking.

This enhanced navigation leads to a more efficient and effective pathway through post-secondary education and a smoother transition to the world of work post-graduation. Not only should this result in higher levels of student satisfaction and success, but it could have a significant impact on the costs of education — both for the student themselves and for post-secondary institutions. Investing in co-op programs makes sense.

Acknowledgements

The researchers wish to thank the Association of Co-operative Education BC/Yukon for funding to support co-op student Esther Yuen to assist with the design and delivery of the survey, and Merry Wang who assisted with the final stages of preparing this paper for publication.

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Appendix A

KEY DEMOGRAPHIC INFORMATION ABOUT CO-OP STUDENT RESPONDENTS

Figure 9.

Is your Co-op program optional or mandatory to your degree completion?

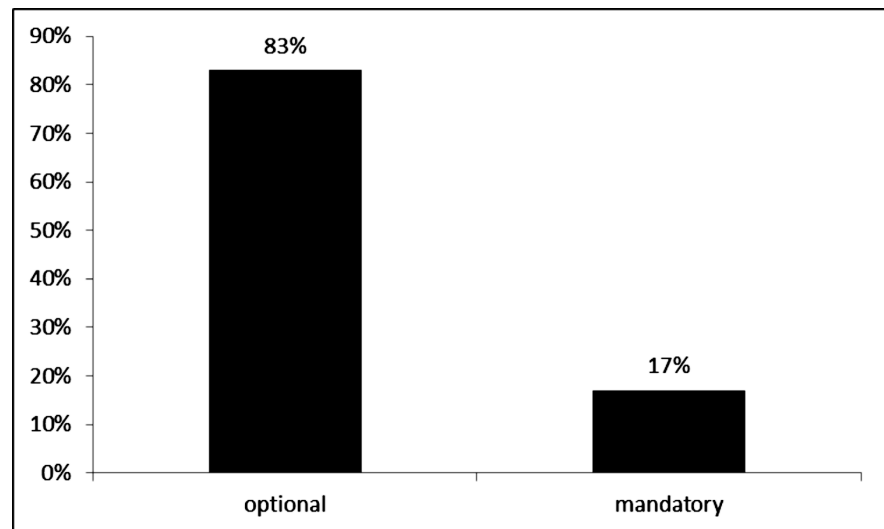


Figure 10.

Demographic information.

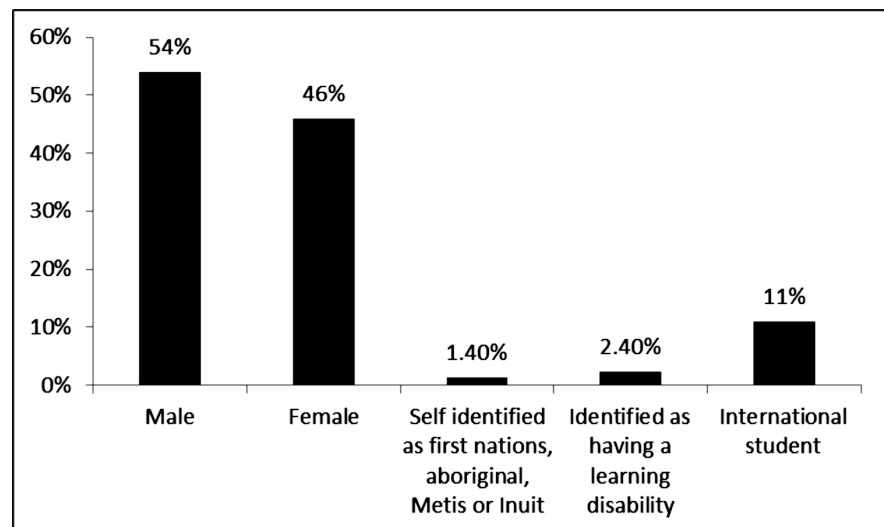


Figure 11.
What type of credential are you currently seeking?

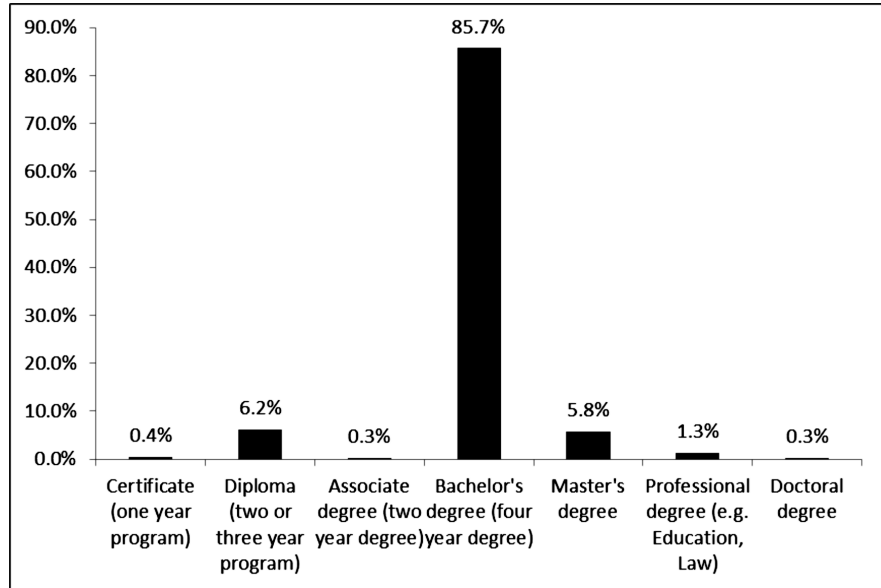


Figure 12.
How many work terms have you completed so far?

