

Seeing the “big picture”: Exploring the impact of the duration of community service volunteer work and learning on university students

Milosh Raykov

University of Malta

Alison Taylor

University of British Columbia

Abstract

Community service learning (CSL) is growing in higher education across Canada and has been a part of university programs in the US for decades. It is described by the Association of American Colleges and Universities as a “high impact” educational practice, along with academic learning communities, undergraduate research, study abroad, internships, and capstone courses or experiences (Kuh, 2008). Some of the service learning program characteristics that reportedly contribute to its impact include the quality of CSL placements, the quantity and quality of opportunities for student reflection, the application of the placement to academic content, and the duration and intensity of service (Eyler et al., 2001). This paper focuses on the question, *what difference does the duration of service learning through volunteering and classroom activities make for student outcomes*, drawing on data from a mixed methods study of students engaged in service learning at a Canadian university. Our previous analysis suggests that CSL is perceived very positively by most students who participate and that it contributes to their development in a variety of ways. The study found that even when students did not opt to engage in a community placement within a community service-learning course, they were positively impacted by peer learning. However, little research has examined the relationship between the intensity of service learning and students’ attitudes. This study provides a contribution to this insufficiently explored domain.

Keywords: Community service learning, volunteer work, outcomes, civic engagement

Introduction

In the US context, where much of the service learning literature originates, Eyler et al. (2001) created an extensive annotated bibliography of articles focused on how community service-learning program characteristics influenced student outcomes, including personal, social, academic, and career development outcomes. Elements identified as impacting students' experiences included placement quality, quantity and quality of reflective activities, duration and intensity of service, and diversity of service. The articles addressing duration and intensity of service included Astin and Sax (1998) and Astin, Sax and Avalos (1999). Our review includes these articles and other more recent writings. There is an extensive literature about the impact of community service-learning on university students, particularly in the US context. Our synthesis of service learning literature (Taylor et al., 2015) found that reported benefits for students included:

- Reflective and collaborative learning (Guthrie & McCracken, 2014);
- Greater awareness of the links between theory and practice (Raykov & Taylor, 2018; VanWynsberge & Andruske, 2007);
- Positive effects on cognitive and affective learning outcomes (Davis, 2013)
- Developing multicultural or intercultural competencies (DeLeon, 2014; Raykov & Taylor, 2018; Williams & Ferber, 2008);
- Commitment to social justice (Charles, Alexander & Oliver, 2014; Claes, Schrooten, McLaughlin & Csoba, 2021; Einfeld & Collins, 2008; Maynes, Hatt & Wideman, 2013);
- Increased commitment to community engagement (VanWynsberge & Andruske, 2007);
- Development of professional identity (Charles, Alexander & Oliver, 2014; Haddix, 2015; Mitton-Kukner, Nelson & Desrochers, 2010);
- Enhancing graduate employability (Mtawa, Fongwa & Wilson-Strydom, 2021).
- Learning about self in relation to others (Mitton-Kukner, Nelson & Desrochers, 2010); and,
- Increased self-confidence regarding content knowledge (Zapata, 2011)

However, despite the identified positive outcomes for the participating students and evident needs in many communities, this form of educational practice is still unevenly developed and many research questions are still insufficiently examined (Maran, Soro, Biancetti & Zanotta, 2009).

Measures of “intensity” and “duration” in the community service-learning literature

Authors who talk about the “intensity” and “duration” of service learning in the literature define it in different ways. For example, measures include the number of hours students participate each week, the number of months students participated in a service project, and how often students say they participated in a community-based project (“never” to “very often” in the National Survey on Student Engagement instrument). The variability in definitions of both intensity/duration and service learning makes results difficult to compare. First, intensity (how many hours are spent in a given period in a CSL placement/project) is clearly different from duration (how many months students spend in a placement/project or how many 4-month CSL courses students take). Second, what kind of experience is involved may differ; for example, NSSE asks about students’ involvement in community-based activities, not specifically about involvement in service learning. Also, there is a difference between curricular CSL (where students engage as part of a course) and co-curricular CSL (engagement outside of an academic course) as well as differences in the kind of community service-learning placements for students. The study reported in this paper focuses on the duration of curricular community service-learning, measured by the number of community service-learning courses students take, a focus not evident in the literature we reviewed.

Findings of empirical research on service learning duration and intensity

Bureau, Cole, and McCormick (2014) looked at the characteristics of students who report participation in service learning using data from 523,633 first-year and senior students attending 1,028 institutions that participated in NSSE in 2007 and 2008. Nineteen percent of seniors participated frequently in a community-based project in their final year of college. Frequent participation was highest among African American students (25%) and lowest among Caucasians (18%). More female than male seniors (21 % vs. 15 %) participated at least “often” in service learning. Comparable proportions of first-generation (which usually refers to students who are first in their families to attend university) and non-first-generation students participated frequently. Education (31%) and “other professional” groups (including health professions) had more students reporting frequent participation (31% and 35% respectively) although this participation may include field placements.

Authors compared the mean differences in deep learning (higher order thinking, integrative learning, and reflective learning) and self-reported gains (practical competence, general education, personal development, social development, and a one-item measure “contributing to the welfare of your community”) between frequent service-learning participants and other students. They found that senior students who were frequent participants in service learning showed moderately more integrative learning, interest in social development, and community welfare. The authors also observed a consistent and positive relationship between frequent participation in service learning and deep learning and self-reported gains.

Astin and Sax (1998) researched the impact of service learning for 2,309 service participants and 1,141 non-participants (entering freshmen and follow-up data) at 42 US colleges. Questions included the duration as well as location of service involvement. Interestingly, only 29% of the service reported in this research was done within a course (curricular SL) while 70% involved other co-curricular activity (outside of a course). In terms of duration, more than one-quarter (28%) involved service for more than a year and the median duration was six months. Three of the four top reasons for student participation in service learning involved civic responsibility and service to others, as opposed to more instrumental reasons (e.g., enhance resume).

Interestingly, all student outcomes were enhanced by service learning participation (academic development, civic responsibility, and life skills). In terms of the kind of service, education-related service had positive effects on more academic outcomes. Differences in pretest and post-test responses (i.e., change over their degree) were greater for SL participants than non-participants. The largest differential changes concerned promoting racial understanding, participating in community action programs, and influencing social values. According to authors, participants were also more likely to express interest in working for non-profit organizations and a greater sense of personal agency around social change. Students’ awareness and understanding of the world around them was also impacted positively by SL. Practically, students were also satisfied with leadership opportunities, the relevance of course materials for everyday life, and preparation for future careers.

Authors also note that the duration of SL had an impact on 12 of 35 student outcomes, effects that cannot be attributed simply to the type of participation.

Most of these effects were in the areas of life skills and civic responsibility. Comparing SL provided as part of a course to that provided in other ways indicates that curricular SL contributed most to students' understanding of social problems.

Astin, Sax and Avalos (1999) address the question: How is the student's educational and personal development affected by service participation? Their study looked at whether service learning completed during undergraduate years has lasting effects for students after college. Authors drew on longitudinal, multi-institutional data from a national survey conducted when students initially entered college, four years after, and nine years after (1985, 1989, 1995). The 1995 sample included 12,376 students from 209 institutions.

Authors found that spending six or more hours per week in community service work in the last year of college nearly doubled their chances of being involved in service work after college. Being involved in service learning during college was also associated with a greater sense of empowerment after college (the actual survey question asked whether individuals can bring about change in society) as well as with higher degree aspirations, student perceptions that their undergraduate degree provided good preparation for work, and socializing with persons from different ethnic/racial groups. It was evident that the positive effects of service on civic and social values persisted beyond college. Overall, the study concluded that the short-term effects of service learning during an undergraduate degree persist after college. Some of these effects include being more socially responsible, more committed to serving their communities, more empowered, more interested in promoting racial understanding, and more committed to education.

In addition to studies about the impact of frequent participation, a few studies considered whether short-term placements also have an impact (Curtis et al. 2009; Davis, 2013; Reed et al. 2005). These studies tend to assume that while longer and more intense participation is preferable, it is not always possible given student schedules and program structures. Therefore, the research question for these authors tends to be: is some CSL better than none? For example, Reed et al. (2005) conclude that even a short service-learning experience can have measurable impacts on the outlook and attitudes of student participants. Davis (2013) found that short-term service learning impacted both cognitive and affective outcomes compared to more traditional pedagogy. Finally, Curtis et al. (2009) considered the effects of co-curricular

research-based placements of five to sixteen days and found that students' self-reported learning outcomes were significant.

Assumptions and limitations of empirical research

One key assumption of studies looking at intensity and duration of CSL is that the benefits students enjoy from a particular college experience is proportional to the time and energy they invest in that experience; Astin, Sax and Avalos refer to this as the "theory of student involvement" (cf. Astin, 1984, 1985). While it makes sense that the *quantity* of time involved in an activity matters, questions also need to be asked about the *quality* of students' service learning experiences. For example, as noted above, Eyler et al. (2001) suggest that students' service learning experiences are impacted by placement quality, quality of reflective activities, and diversity of service. Although not elaborated in Eyler et al., we assume placement quality includes factors like clearly defined tasks, appropriate expectations, orientation to the partner organization, opportunities for supervision and mentorship, and guidance in reflection activities.

Further to this point, most CSL studies focus exclusively on positive outcomes; "seldom is heard a discouraging word" in this literature. The more critical literature tends to come out of small scale studies conducted by instructors on their own classrooms, by those who have social justice or critical aims for CSL (Taylor et al., 2015). Issues identified by these authors include the paternalistic attitudes of students toward community members (Bussert-Webb, 2009; Hollis, 2004), the potential for community partners to have inappropriate expectations of students (Mason, 2014), disconnects between classroom and community learning (Butler & Christofili, 2014), lack of preparation of students for community engagement (Williams & Ferber, 2008), lack of reciprocity of relationships (Lewis, 2004), and the limitations of short term placements and relationships (Haddix, 2015). Clearly, these concerns will not be remedied by CSL of longer duration, pointing instead to the need to think more carefully about how experiences are structured.

Much of the literature discussed above involves quantitative, large-scale studies involving surveys of students, which are limited in their ability to probe the details of particular student experiences or to provide in-depth discussion about different "measures" of student outcomes (e.g., different conceptions of what intercultural competence means). In addition, the type of student service is not captured in large-scale studies. Therefore, studies focused on national

data across institutions may not adequately attend to the context, including the diversity of institutions and student experience.

A final limitation of the literature, from a Canadian perspective, is that the history and organization of service learning is quite different in the US, where most studies were conducted. Service-learning in the US appeared initially in the mid-1960s, when there was expansion in higher education and a focus on anti-poverty and social reform programs. In Canada, service-learning programs began to proliferate in higher education much later, starting in the early 1990s. Further, Canadian service learning lacks the coordination evident in the U.S., where it is supported by various levels of government, receives institutional and foundation funding, and has dedicated conferences and academic journals (Raddon & Harrison, 2015).

Our mixed methods approach addresses some of the limitations of previous studies. To our knowledge, it is the first study in the Canadian context to look at the impact of more intensive participation in CSL on student outcomes. Among other things, our survey asked former CSL students about how many and what type of student placements they engaged in, and how CSL impacted their subsequent activities (education, career, community engagement). Service learning placements involved a diversity of activities including teaching or mentoring; education and outreach; research and evaluation; front line work with clients; and/or administrative projects. Further, our interview data suggest that there were different cultures around learning and civic engagement at the smaller rural campus vis-à-vis the larger urban campus at the same university. Students who enrolled in CSL courses but did not engage in an off-campus experience were also surveyed and form a comparison group. In addition, a telephone survey was conducted with students who earned a CSL certificate as part of their undergraduate degree (requiring the equivalent of five courses). This mixed methods approach consisting of a survey followed by interviews, allowed us to probe findings and develop a more nuanced interpretation of impacts.

The community service-learning program at Canadian university

At the time of our survey, the curricular service-learning program had operated for just under a decade at this university. In the 2013-14 school year, the program involved around 940 students across 11 faculties, 50 university instructors and 164 community partners. Students from three campuses (including a small urban campus) were included in our survey, although most

of these students (in almost equal proportions) came from the large urban campus and small rural campus. The majority of students were from Arts but other faculties involved in the program included Agriculture, Life and Environmental Sciences; Business; Education; Native Studies; Physical Education and Recreation; and Pharmacy and Pharmaceutical Sciences. The CSL program was primarily driven by instructors, who opted to include CSL in their courses. Partnership coordinators then worked with these instructors to develop placements for students, mostly in non-profit organizations, schools, and NGOs. The CSL program staff provided some support for instructors through an orientation for instructors and community partners at the beginning of each semester, check in's with instructors and community partners throughout the term, and attendance at end of term presentations. Evaluation surveys of the program were also completed by students, instructors, and community partners at the end of each term.

Students are normally required to spend 20 hours over the term on their service placement or projects outside of class. In some courses, CSL was mandatory and in others it was optional. Important for this study is the existence of an embedded undergraduate certificate in Community Engagement and Service Learning, which students could achieve if they completed the five CSL courses (or 4 courses and one co-curricular experience) over their programs. All students taking this certificate were required to take one of two CSL "designated courses," which introduce students to the topic of community engagement and address CSL theory and practice. This kind of certification in service learning is unique among most Canadian university programs and involves a group of students who have made deliberate choices to become intensively involved in CSL. This is important since students often "fall into" CSL courses. At our study site, 17 students completed a certificate in 2011-12.

Methodology

This study applies a unique mixed methods research design involving a combination of exploratory and explanatory sequential methods (Creswell & Plano-Clark, 2007) in a form of a dialogical, critical and participatory approach (Taylor & Raykov, 2020). To assess the long-term outcomes of CSL, an online survey of former CSL students, and telephone and online surveys with former CSL certificate students were conducted. Online surveys were developed with input received from focus groups with current students, instructors and community partners and assistance from two CSL students in fall 2013. These students also helped to complete surveys with CSL certificate students in

December 2013. Survey participants who provided consent were later invited to participate in interviews to discuss results of this study and to provide further input into our understanding of the outcomes of CSL.

Our sample of participants consists of 525 former CSL students who participated in CSL classes between 2005 and 2012. The study involves CSL students from three campuses at this university: the main urban campus, a small urban campus, and a small rural campus. In total, 1,834 former CSL students were invited to participate between October and November 2013 and the overall response rate was 29%, which exceeds the usual participation rates for this type of study. The sample consists of 438 community-based students and 87 classroom-based students who participated in CSL courses. In the second phase of data collection, 30 former CSL certificate program students were surveyed by telephone and this dataset was merged with that containing the 525 students for a total of 555 participants. Our survey found that the average age of CSL respondents was 24.3 years and 80 % were female. 6 % of respondents were Aboriginal and 14 % were members of “visible minority” groups. Finally, in the third phase of research, 21 students took part in 13 interviews in 2014 and 2015, including 14 students who completed a CSL certificate.

Interviews were conducted with students who had completed the survey and agreed to be contacted again. The interview guide included questions about students’ history with volunteer work and activities in high school, their motivations for doing service learning, the kind of service work they engaged in, their experiences in their placements, ideas about effective CSL, and their perceptions about the impact of CSL. Interviews lasted an hour on average and all interviews were fully transcribed and are being analyzed using NVivo software. Interview data with some of the “certificate students” are discussed below to amplify, clarify, and extend the survey findings reported below.

To achieve our research goals, this study uses standard, descriptive and inferential, univariate and multivariate statistical techniques to analyze quantitative data. The basic descriptive statistical measures, percentages, averages, bivariate cross-tabulations, chi-square tests (χ^2) and inferential statistics as well as visual data presentations (Robson, 2002) describe the duration of participation in CSL and the outcomes of this form of learning. Factor analysis (Tabachnik & Fidell, 2001), logistic regression (Hosmer, Lemeshow & Sturdivant, 2013), correlation, and analysis of variance were used

to evaluate applied instruments and determine associations between the duration of participation and the long-term outcomes of CSL. The level of statistical significance reported in our study is indicated as follows: *** $p < .001$, ** $p < .01$, * $p < .05$ and 'n.s.' designate a lack of statistical significance.

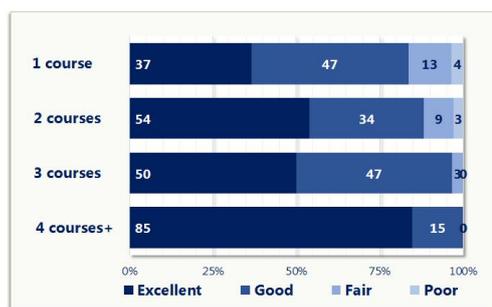
Findings

This section presents findings from our analysis of survey data, which compares responses from students who completed several CSL courses with those who completed fewer. While our intention is to consider differences in student outcomes related to the duration of service learning (indicated by number of courses), data also provide some insights into the other factors that impact outcomes, notably the perceived quality of the service learning experiences and the diversity of those experiences.

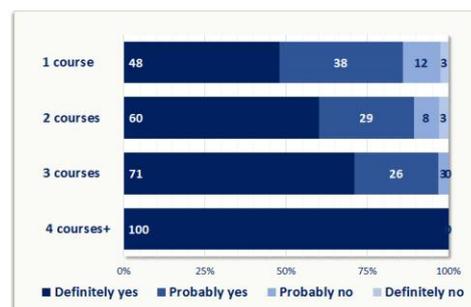
Overall evaluation of community service learning

Results of our study demonstrate that there is significant association between the duration of CSL and students' overall impression of CSL as a learning strategy (Graph 1). Students involved in more CSL perceive this form of learning more favourably (Contingency Coefficient = .261, $\chi^2 = 37.766$, $p < .001$).

Graph 1: Overall impression of CSL as a learning strategy



Graph 2: Would you recommend participation in CSL to other students?

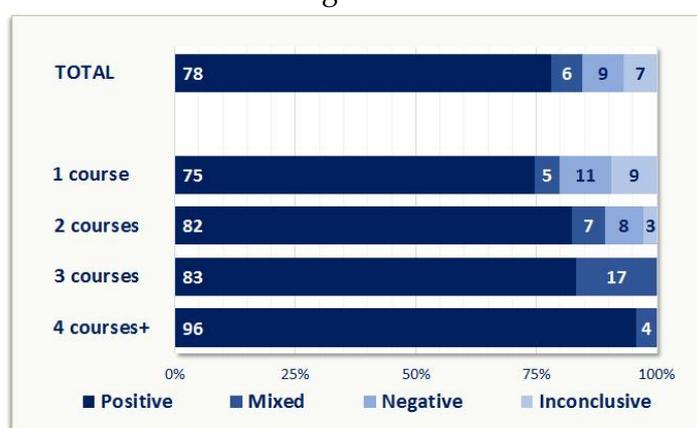


The study also found that a great majority (88%) of participants in this study are highly satisfied with CSL and most of them would recommend participation in CSL to other students (Graph 2). However, there is a significant difference between students involved in high and low duration CSL regarding their readiness to recommend CSL ($\chi^2 = 39.009$, $p < .001$). While approximately

half (55%) of all former CSL students would definitely recommend CSL, more than two-third (71%) of students who took three courses and all students (100%) who took four courses indicated that they would definitely recommend CSL.

Student evaluation of CSL through open-ended responses (Graph 3) also shows that more than three quarters (78%) of the former CSL participants overall have positive attitudes toward this form of learning.

Graph 3: Duration of participation and emotional tone of community service-learning evaluation



An additional 6% of students reported mixed (positive and negative) experiences with CSL, and a similar number provided inconclusive answers. Less than 10% of students reported negative experience with CSL, most often because of the perceived added workload, and in a smaller number of cases, a mismatch between their program of study and their placement.

In sum, in addition to the positive evaluation of CSL overall, students who participated in more courses were even more positive about this form of Learning ($\chi^2 = 19.065, p < .025$). An additional multiple logistic regression analysis (Table 1) shows a tendency toward different evaluation of CSL among students who took a greater number of courses and a strong, statistically significant association between duration of participation in CSL and the emotional tone of students' responses. Students who took four or more courses are significantly more likely to favourably evaluate CSL than the students who took a smaller number of CSL courses (Adjusted Odds = 8.960, C.I = 1.142 - 70.270, $p < .037$).

Table 1: Multiple logistic regression: Duration of participation and emotional tone of CSL evaluation and students' socio-demographic characteristics

	Sig.	Raw Odds	Lower 95% C.I.	Upper 95% C.I.	Sig.	Adjusted Odds	Lower 95% C.I.	Upper 95% C.I.
Number of Courses								
1 CSL course	.106	1				1		
2 CSL courses	.167	1.598	.822	3.107	.093	1.895	.899	3.996
3 CSL courses	.348	1.703	.560	5.176	.600	1.369	.423	4.429
4 or more courses	.046	7.835	1.037	59.227	.037	8.960	1.142	70.270

A certificate student (student who took 5 CSL courses) who was interviewed confirms a common sentiment that CSL learning provides a more engaging way of learning, as follows,

The focus at the university is money, jobs, student graduation – universities are businesses now, which is unfortunate. CSL isn't about business, CSL is about actually learning. I think CSL honestly for me kind of saved the university for me. By having that focus back on the learning it made the university experience just so much better for me.

Community service-learning placements

As expected, students who participated in a larger number of CSL courses more frequently were placed in a variety of types of community organisations. As Table 2 shows, overall, students were placed most often in educational institutions and involved in teaching or mentoring (44%). Very often students were also placed in organisations involved in education and outreach activities (37%). Additional frequent forms of placements were related to research and evaluation (34%) and front-line work with clients (29%).

Table 2: Duration of CSL (number of courses) and the primary content of CSL placements (%)

	1 course	2 courses	3 courses	4 courses+	Total (%)	Chi-sq.
Teaching or mentoring	40	49	45	64	44	8.390*
Education and outreach	33	42	32	61	37	11.080**
Research and evaluation	29	39	58	52	35	17.47***
Front-line work with clients	24	29	45	61	29	22.984***
Special events	19	29	26	36	23	7.964*
Administrative projects	16	23	42	52	22	30.492***
Communications and social media	15	21	13	36	18	11.200**
Volunteer management	9	18	10	22	12	9.072*
Marketing and fund development	4	6	10	24	7	19.783***

A smaller, but significant, number of students were involved in organization of some special events (23%) and different administrative projects (22%). A smaller fraction of students were placed in organisations involved in communication and social media (17%), volunteer management (12%) and marketing and fund development (7%).

Results demonstrate a strong association between the number of CSL courses students take and their likelihood of participating in a diverse range of CSL activities. For example, half (52%) of certificate students were involved in administrative projects but only 16% of students who were involved in a single CSL course were involved in this type of activity. Similarly, almost two-thirds (64%) of certificate students were involved in teaching or mentoring compared to less than half of students who took fewer CSL courses. As well, a large number of certificate students (61%) were involved in frontline work with clients compared to less than a third of students involved in one or two CSL courses. Overall, the analysis in Table 2 indicates that students involved in more CSL participate in a wide range of activities in community organizations (all differences are statistically significant). Our interviews of certificate students confirm that participating in a diversity of CSL activities has a positive effect on students (cf. Eyler & Giles, 1999) because they have greater opportunity to learn about different organizations and expand their horizons, as this certificate student suggests,

The more [CSL classes] you take, the more you can see the big picture. If the one class didn't seem like a good fit or you had a placement that wasn't a good fit for you, you can think bigger picture, like what was the intent behind that, and make those connections that maybe aren't as clear. ... The more classes you take, the more it becomes part of the bigger picture of your learning. Going through my degree it was like this building learning process in bringing it all together.

A diversity of experiences is particularly beneficial in helping students articulate their career and life goals, discussed below.

The influence of community service-learning on students' university programs

Almost all survey results from this study demonstrate that the duration of involvement in CSL (the number of CSL courses) is significantly associated with stronger long-term outcomes of CSL. For instance, half (50%) of all CSL

participants indicated that CSL had an influence on their university program ($\chi^2 = 71.106$, $p < .001$). However, those who took a single CSL course less frequently mentioned that CSL had an influence on their university program (38%) compared to more than 90% of students taking 4 or more courses.

The kind of influence of CSL on students' university programs included taking some additional CSL courses (55%), taking other courses related to CSL (31%), deciding to pursue graduate studies (12%), and/or changing their degree program (10%). Also, approximately a quarter (25%) of students indicated that CSL influenced their university program in other ways. As Table 3 shows, students involved in a greater number of CSL courses indicated more frequently that CSL influenced their university program.

Table 3: The impact of THE uration of CSL on students' university program

	Decision take more CSL courses	Decision to take other courses related to CSL	changed of the degree program	Decision to pursue graduate studies	Other
1 course	32.6	27.9	12.9	11.3	30.3
2 courses	75.3	30.1	2.7	8.3	15.3
3 courses	76.9	20.0	12.0	16.0	16.0
4 courses+	96.3	80.0	40.0	50.0	50.0
TOTAL	55.1	30.8	10.3	11.9	24.9
Chi-Sq.	64.397 ^a	18.978 ^a	10.369 ^a	9.633 ^a	8.845 ^a
Sig.	.001	.001	.016	.022	.031

Table 3 suggests that students who took 4 or more CSL courses were more than four times likely to report that it impacted their decision to pursue graduate studies. Responses to open-ended questions also indicate that CSL influenced students' program of study and career choice.

The finding about higher graduate school aspirations is interesting since CSL students are commonly perceived as valuing out-of-class learning more than in-class learning, which might lead one to expect lower aspirations among those who take more of these classes. However, our interviews with certificate students confirm other findings that closer relationships may develop between instructors and students in CSL courses (McKay & Estrella, 2008), which may lead to higher student aspirations. Further, the greater control students often experience over their own learning through CSL (cf. Livingstone & Raykov, 2008) may contribute to greater interest in formal learning.

For example, when asked if CSL gives students more control over the curriculum, a certificate student replied, "some of the professors will let you

direct the conversation and you can bring in personal experiences if you want... I feel that you learn better that way; when you can use your personal experience and you make stronger connections to it" (Psychology BA, Employed by former CSL community partner). This same student spoke about the shift that occurred in her thinking about graduate school after taking CSL courses, as follows,

Psychology is research-based... I ended up having a bit of that with the last placement I had, and I continued with the department of psychology doing research. But I just felt like I wanted a program that was more, especially after doing CSL, more hands on and more applicable. So [name of university] works really well because that's what they're all about, more community engagement and social awareness. I'm looking for more programs like that.

Interestingly, CSL influenced this student's thinking about further education and career in two different ways. First, working on the "front line" in an organization made her aware of the importance of gaining further education: "I know I don't want to work on the frontline all the time, so then it propels me toward getting my Masters [degree]." Second, CSL placement experiences helped her to think through the kind of masters (and potentially doctoral program) she would like to pursue—one that is more community engaged and applied.

The influence of community service-learning on students' career plans

In addition to academic programmes, participation in CSL significantly influences students' career plans. Almost half (46%) of all CSL students indicated that CSL impacted their career plans but all students (100%) who took four or more courses reported this outcome. This difference is highly significant statistically ($\chi^2 = 57.714$, $p < .001$). Students who indicated that CSL had some influence in their career plans reported that they became more interested in work in the not-for-profit sector (55%) and work in the public sector (35%) while a very small number indicated their increased interest in work in the private sector (7%). Approximately a quarter (24%) of all participants who indicated that participation in CSL significantly influenced their career plans in "other" ways, continued to volunteer and focused their studies toward occupations experienced in CSL classes.

Participants' open-ended responses about the influence of CSL on their career plans provide further insight into the impacts of this form of learning. A

significant number of students indicated that they continued volunteering in organizations where they were placed, gained valuable job experience, and/or obtained paid employment with CSL partner organizations. Former CSL students often emphasized that it provided them with the opportunity to apply their knowledge, to enrich their learning by connecting theory and practice, and enhanced their skills.

Our interviews with certificate students indicated that several were working in the same occupational area as their CSL placements and/or were working for placement organizations. For example,

Getting my practicum placement with the at-risk youth kind of reminded me, cus I worked with high risk youth before and it felt right but I kind of forgot about it. I got tied up doing all these other courses, and getting that placement I was like, oh yeah, this is what I'm supposed to be doing. It was really cool to get that placement.

Q: And that's what you do now?

Exactly. My position is a recreational worker.

When asked where she is working, a second certificate student commented,

I'm working now at the [name of employer], where I did that placement for CSL. I've been working there [for four months] as the policy analyst. Previous to that for a couple of years now I've been a research assistant as well.

Q: What does [your organization] do?

We advocate for healthy public policy to reduce chronic disease risk in [the province] . We focus on healthy eating, physical activity, alcohol harm reduction, and tobacco control.

In addition to occupational knowledge, it was clear that CSL helped students build social capital in the non-profit sector. In particular, an international student suggests CSL can be very beneficial for students like herself,

One of the biggest concerns international students have is they don't have work experience... When I came here and I was in my undergrad I think CSL is a perfect way to gain that sort of experience, that sort of networking, developing skills. ... I think it has value in all the experiences I've had in my placements. ... A lot of positions I'm interested in are related to the non-profit sector, so I think it has value.

Like the psychology student cited above, this student also commented that CSL helped her see the possibilities and value of applied research. At the time of our interview she was enrolled in a masters program and aspired to work for an international NGO doing development work. Given that a high proportion of graduate students do not go on to work in universities, exposing students to other research-related opportunities makes sense.

Given the above quotations from interviews with students who took several CSL courses, it is probably not surprising that one-quarter of all survey participants in this study believe their CSL experience had some influence on their employment. A significantly greater number of students who took three (43%) and four (67%) CSL courses reported that CSL experiences helped them to obtain a job ($\chi^2 = 30.423, p < .001$).

Even where CSL did not directly lead students to a career, their practice of reflection helped them feel comfortable about their ability to chart a path. For example,

At the end of my four undergrad years I still didn't know what I wanted to do with my life and what kind of work I wanted to do. But at least I had developed the skills and some of the strategies to figure that out. So I went on and did an internship after graduation. One thing that I didn't mention is the reflection part that's also meant to be included. That's a skill that I developed through CSL that I use and will continue to use for the rest of my life.

In addition to education and career impacts, certificate students talked about the benefits of CSL for engaging in their communities as citizens. For example,

I'm doing things outside of CSL as well. ... I'm just picking up all these [volunteer positions] now. I like doing it. I don't even care so much about the resumé anymore. Some positions you do get paid or you get a gift certificate and things like that, but it's mostly that ever since I've done CSL I recognize the amount of difference it makes for [the organization]. ...When I first started, CSL was a good opportunity for me to get the resumé stuff, but the more you learn about CSL the more interested you are in putting yourself out there for [community organization's] sake versus for things that you're interested in.

This student further emphasized that CSL transformed her university experience by broadening her horizons and exposing her to different perspectives on issues,

I'm getting a voice, I know how to generate my opinions. I realize more now why they matter, rather than just knowing things. So that's kind of the impact CSL had on me.

In addition to the impact on further education and career, intensive participation in CSL appeared to provide greater academic support to students. The study demonstrates that the students involved in intensive CSL more positively evaluate the academic support they received through CSL from their instructors than those involved in less CSL ($\chi^2 = 18.428, p < .031$). For example, more than half (55%) of students involved in more CSL courses perceived academic support received through CSL as excellent in comparison to approximately one-third (33%) of students involved in one CSL courses. This may be partly because students often develop more closer relationships with instructors, which allows them to engage in different ways, as these certificate students suggest,

I got to know [CSL director] quite well so I developed a trusting relationship with him and he sort of guided me along in course selection. He got to know me and my interests...

CSL just opened up another window of conversation to have with your professor, "Hey I learned this, what do you think about this? This is what I did and what I learned."

In general, certificate students perceived CSL instructors to care about teaching and to be socially aware and community-engaged.

In sum, our study demonstrates that CSL provides an opportunity for most students (72%) to connect classroom and community knowledge and to make consequential transitions (Beach, 1999), and further shows that the duration of CSL participation plays a significant role for students' experience and overall outcomes ($\chi^2 = 19.404, p < .022$). Students involved in more CSL courses (94%) reported more frequently than those involved in fewer courses that they had an opportunity to integrate in-class and out-of-class learning ($\chi^2 = 29.887, p < .001$). Similarly the study shows that the duration of participation in CSL is positively associated with students' learning experiences in the community ($\chi^2 = 23.672, p < .005$). Our interviews with students who completed a certificate in service learning and community engagement describe a range of outcomes from increased motivation during their university programs, to influences on

their education and career decision-making, to becoming more reflective and engaged citizens.

Community service-learning as “high impact” pedagogy

Our study confirms that service learning is a “high impact” educational practice (Kilgo, Ezell Sheets, & Pascarella, 2015). We used a factor analysis and analysis of variance to evaluate a scale examining students' self-reported outcomes of CSL, as well as reliability analysis to examine the internal consistency of this scale. The factor analysis shows that the scales which examine the self-reported outcomes of CSL are unidimensional, explain 54% of the total variance and have high internal consistency (Cronbach's Alpha=. 913). Analysis of variance (Table 4) demonstrates statistically significant differences in regard to the total score of self-reported outcomes among students who took a different number of CSL courses ($F=11.623$, $p < .001$). Students who took four or more courses reported the highest scores, and students who participated in only one CSL course reported the lowest.

Table 4: Duration of participation and self-reported outcomes of CSL

Number of courses	Mean	SD	.Std. Error
1	2.4	.73	.04
2	2.1	.68	.07
3	2.1	.71	.13
4	1.6	.62	.11
Total	2.3	.73	.03

Further analysis also found the strongest statistically significant correlations ($p < .001$) between the duration of participation and the development of leadership skills (.244), motivation to learn (.203), ability to take an active role in your learning (.202), ability to respond to complex real-life social issues (.200), and students' self-reported ability to think critically (.197).

In addition to the specific, academic and employment-related outcomes, CSL attitudes towards CSL were examined by a six-item semantic deferential scale. This analysis shows that most CSL students perceive CSL as a highly valuable (42%), relevant (35%), reflective (33%) and empowering (25%) form of learning. The analysis also shows that there are, again, significant differences based on the number of CSL courses taken; approximately one-third of all students (33%) perceive CSL as highly “reflective” but a significantly greater number (61%) of students who were intensively involved in CSL responded that way. In addition, approximately a quarter (22%) of all students perceive CSL as an

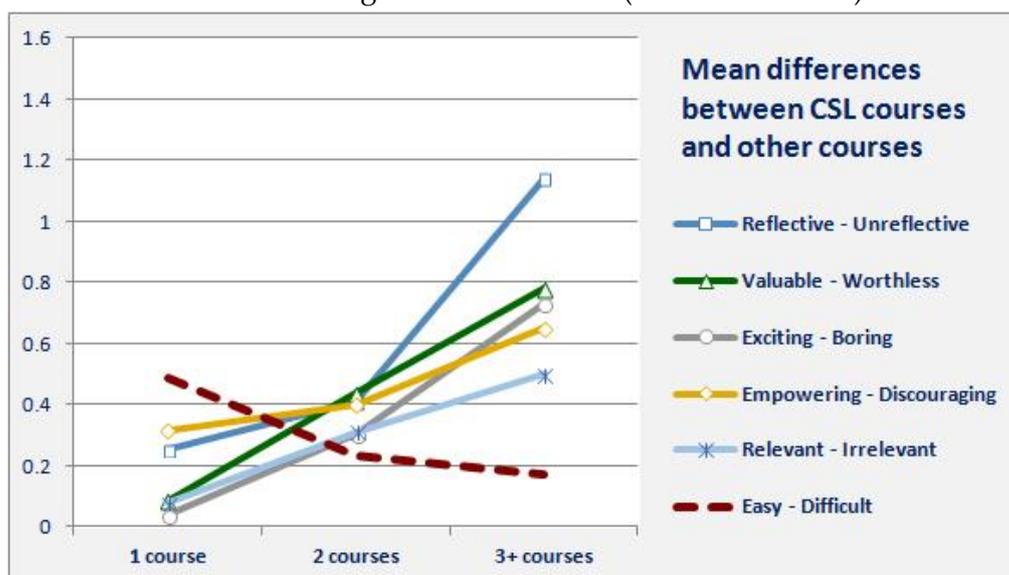
exciting form of learning but a much greater proportion (39%) of students who took four or more courses perceive CSL that way. Also, despite very positive attitudes toward CSL, a small proportion of CSL students (8%) think that CSL is an easy way of learning.

Table 5: Students' attitudes toward CSL and other courses

	CSL Courses (The mean values)	OTHER Courses (The mean values)	t-test
Exciting - Boring	2.28	2.45	2.966**
Easy - Difficult	3.03	3.44	7.983***
Valuable - Worthless	1.88	2.12	4.250***
Relevant - Irrelevant	1.99	2.16	3.057**
Empowering - Discouraging	2.20	2.57	6.659***
Reflective - Unreflective	2.08	2.46	6.288***

In addition, our study also found significant differences between students' attitudes toward CSL courses and other courses. As table (Table 5) shows, participants in this study have significantly more positive attitudes toward CSL courses than the other courses they took during their university studies. The same table shows that former CSL students more often perceive CSL as exciting, easy, valuable, relevant, empowering and reflective compared to their other courses. All tests are statistically significant.

Graph 4: Duration of participation and students' attitudes toward community service-learning and other courses (mean differences)



A series of comparisons show that adding CSL courses increases students' positive perceptions of CSL courses vis-à-vis other courses on all except the difficulty scale (Graph 4). In contrast, as the same graph shows, attitudes toward other courses remain mainly unchanged or slightly worsen as students take more CSL courses.

Overall, results from this section of the analysis demonstrate that there are relatively small differences between the means of the various semantic differential scales in regard to attitudes toward CSL and other courses among students who participated in less CSL, but participation of longer duration in CSL increases differences in perception. Greater participation in CSL significantly improves perceptions of this form of learning but does not influence perceptions of other courses significantly (see Table 6). Despite the limited capacity of cross-sectional studies to determine causal relations, this study provides a strong indication that the duration of participation in CSL contributes to students' positive evaluation of it as a form of pedagogy.

Table 6: Duration of participation and students' attitudes toward CSL and other courses (mean differences)

Semantic differential scales	1 Course			2 Courses			3+ Courses		
	Mean	t	Sig.	Mean	t	Sig.	Mean	t	Sig.
Exciting - Boring	.04	.51	.612	.30	2.34	.021	.73	5.36	.001
Easy - Difficult	.49	7.43	.001	.23	2.23	.028	.17	1.33	.188
Valuable - Worthless	.09	1.19	.236	.44	3.76	.001	.78	7.09	.001
Relevant - Irrelevant	.08	1.08	.280	.31	2.49	.015	.50	4.24	.001
Empowering - Discouraging	.31	4.63	.001	.40	3.02	.003	.65	4.72	.001
Reflective - Unreflective	.25	3.27	.001	.41	3.35	.001	1.14	7.01	.001

Analysis of the open-ended responses helps explain why doing more CSL courses makes a difference for students. Several students described a strong positive impact of CSL on their understanding of their lives (*'Completely changed my life in a positive way.'*); understanding of the society (*'It was an eye opener to society for me. It was good to have outside experience away from the classroom'*); and academic development (*'It was enlightening to say the least, and a positive time in my academic career'*). In addition to these profound influences on participants, CSL also had a strong influence on the participants' attitudes towards their professions (e.g. *'I hope that as a future elementary school teacher, I can provide enriching learning opportunities for my students the way that CSL has for me'*).

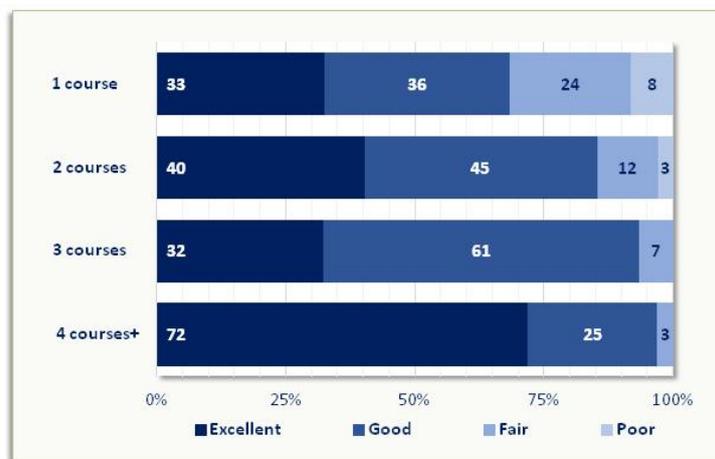
Interviews with certificate students confirm that doing several CSL courses, particularly when experiences are structured carefully, can promote student commitment. For example,

In CSL you do have to make the connections [between classroom and community learning] yourself at the end of the day, so I definitely felt empowered in that way. By seeing the projects being completed, like the equity audit... I felt empowered because universities started responding and ...they've made a little bit of progress there.

These outcomes were attributed, in part, as a certificate student notes, to the way that CSL encourages students to become invested in their own learning.

A key activity in most CSL is the development of student's reflective abilities. According to this study (Graph 5), more intensive participation CSL significantly contributes to the development of students' abilities to engage in reflection ($\chi^2 = 41.747, p < .001$). Approximately 97 % of student taking more CSL courses (compared to 75% of all CSL students) perceive they had excellent or good opportunities to reflect on issues observed in the community.

Graph 5: Duration of community service-learning and the opportunities to reflect on issues in the community



In addition to survey findings, students' open-ended responses indicate their opportunities to reflect on issues within their communities and to develop not only critical abilities but also their creativity in working toward solutions,

CSL permitted reflection of the communities that we live in. ...I was able to become more of a critical thinker and deliberate about how to improve my community on multiple levels.

And,

It definitely helped me reflect critically on what I was learning in the classroom. To see what I was learning playing out before my eyes helped solidify the content, which was extremely helpful. Also, to get off campus and out into the real world for a few hours every week was beneficial in a variety of ways, including but not limited to: my emotional health, my motivation to learn in school, my interaction with what I was learning in other courses.

Like previous studies (Taylor & Raykov, 2014), interviews with students indicate that CSL influences participants, not only through their own engagement in community placements, but also through sharing their experiences in classroom discussion. A certificate student spoke, in particular, about the two CSL-designated courses she took, courses which make service learning an object of study as students engage in it,

CSL [designated courses involved] actively communicating to each other about our placements ... [They] are just exceptional ... I feel that individual projects, they're like puzzle pieces. When you're in the placement you can see how your puzzle piece fits into the community even if you're not directly involved. But you kind of need to put the puzzle piece into the classroom a lot more as well.

Another certificate student also referred to this as “vicarious” learning,

We had a lot of discussion time, which is good because then we know about how everybody else is doing in their placements and you see different sides of things. ... So you still get to learn about [other placements], just not first hand. So it's vicarious learning about even more community organizations, so that was good.

But while certificate students, like other students, tended to emphasize the positive sides of CSL, they also shared that engaging with community is not always easy because it involves emotional learning. For example,

I would agree that my CSL courses were easier in terms of you don't have to study as much. But I wouldn't say the course itself is easy, because it takes up a lot of time. I had great placements, but some placements could be frustrating. They're really time consuming and can even be somewhat emotionally stressful too. So I wouldn't say it's easy ... it takes a lot of effort.

Service learning can be stressful, according to another certificate student, because it often unsettles students,

People sort of live in a very self-absorbed bubble and you never think about other people. So, by sort of shaking that up, like you're not the only person in the world, I find that really jars people out of their shells.

Although CSL studies often emphasize the therapeutic aspects of CSL (e.g., students feel good about themselves while contributing to community), the comments of certificate students suggest that CSL, as a socially responsive pedagogy, may engage “the politics of the subject and pedagogy of the heart” (Amsler, 2011, p. 50) in ways that are not always comfortable. While not all CSL has a social justice orientation, it was noteworthy that most of the certificate students spoke about its role in raising their consciousness about possibilities for personal and social change.

Further, a student suggested that comfort zones of knowledge and feeling tend to be recognized as sites of struggle in CSL (Amsler, 2011),

I find that a lot of the professors who teach CSL are usually already on that sort of open mind track, so you don't have to think one particular direction. So that sort of reduces contradictions from occurring. The professor is not telling you what to learn in what particular way for the exam. The contradictions dissipate when you're actually applying your knowledge. In other courses the professors can have their own biases.

Q: So you're saying that CSL allows you to address any contradictions that may be there?

Yeah. You're talking about your experience, and the material all together, not just, this is how I think of things, this is what we're learning. People argue a lot less too in CSL. It's more healthy debate. I took [another course] and the professor had to separate the students – there were women calling each other names... But with CSL, everybody seemed a lot more reasoned in their discussions. CSL reduces tension quite a bit.

One might infer from this quote the importance of the affective learning that occurs through CSL, which is sometimes disruptive and needs to be acknowledged—a unique difference from students’ experiences in most other university courses.

Concluding remarks

In sum, our study demonstrates the value of mixed methods research into CSL. Our sequential method of moving from online surveys to interviews with certificate students, which combines quantitative and qualitative data, allows for a more holistic understanding of the student experience with particular emphasis on the impacts of CSL and “offers the potential to more richly explore blended approaches to both theory and methodology” (Geelan, 2015, p. 403). While survey data demonstrate that taking more service learning courses adds to the impact of this pedagogy for students, our interview data provide further insight into how students reflect on different aspects of the experience and how they think about concepts like reflection, empowerment, and commitment.

Our analysis of survey data indicates small differences in the personal characteristics of students who took one and those who took more CSL courses, but indicates significant differences in course- and employment-related outcomes of participation in CSL. Quantitative findings demonstrate that a longer duration of participation in CSL is strongly associated with students' positive perception of this form of learning and their academic and work-related outcomes. A higher proportion of participants who took several CSL courses saw them as increasing their ability to respond to real-life social issues, think critically, develop a personal code of ethics, and develop leadership skills. These CSL participants also felt that CSL was more important for them in making education and career decisions, finding a job, and improving their job performance. Our analysis of the open-ended responses also confirms that students' greater involvement in CSL has a significant positive influence on long-term outcomes. Further research could explore even longer-term impacts, for example, surveying students more than five years after completing an undergraduate degree to learn more about their post-university trajectories.

Interview data from certificate students amplify some of the findings about the importance of CSL for students' university experience, plans for further education and work, and sense of connection to their community. The importance of understanding different aspects of the CSL experience that result in these outcomes, for example, the importance of relationships with instructors and community partners, is also highlighted in interviews. Finally, interviews point to the further areas of research, for example, what difference do particular CSL instructor's philosophies of teaching (including attention to affective learning) make to their approaches and to student outcomes? This study provides an important foundation for this kind of further research.

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