

Preparing Undergraduate Students for Tomorrow's Workplace: Core Competency Development Through Experiential Learning Opportunities

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Abstract

The rapid evolution of today's workplace requires employees to possess a diverse set of sophisticated cognitive and psychological competencies, thus prompting post-secondary institutions to reconsider not only *what* is taught but *why* and *how*. Our paper proposes a three-faceted model of core competencies that undergraduate students can develop through participation in experiential learning (EL). We describe three EL opportunities at Mount Saint Vincent University that engage students in authentic experiences and encourage critical reflection: service learning (SL) in the Department of Psychology, co-operative education in the Bachelor of Public Relations (BPR) program, and a co-curricular recognition program (CCR) in Career Services. We also provide supporting evidence that EL facilitates the development of core competencies and career readiness. We conclude with recommendations that may help post-secondary institutions better prepare students for the competency-based workforce of tomorrow.

Keywords: experiential learning, model of core competency, career development, undergraduate education

As a result of a confluence of factors, including increasing globalization and technological advances, today's workplace is rapidly evolving, with even entry level employees increasingly expected to possess a rich and varied set of knowledge, skills,

and attitudes. The core competencies expected of tomorrow's workers extend well beyond disciplinary knowledge to include sophisticated cognitive, metacognitive, and socio-emotional skills (e.g., self-regulation, cultural awareness). In preparing students for the reality of the 21st century workplace, post-secondary institutions must consider not only *what* is taught and *why* but also *how best* to do so. In this paper, we advocate that universities more fully embrace experiential education as an instructional strategy that supports the life-long learning of core competencies.

Considerable research on the science of human learning demonstrates that high impact educational practices (HIEP) facilitate learning and personal development (Kilgo, Ezell Sheets, & Pascarella, 2015; Kuh, 2008), likely because they emphasize engagement, active learning, academic challenge, student-faculty interaction, and critical reflection (Association of American Colleges and Universities, 2018; Elon University Center for Engaged Learning, 2014). Examples of HIEP include capstone and writing intensive courses, research mentorship, and experiential education, with the latter encompassing service learning, co-op placement, co-curricular participation, internship, and study abroad programs (Association of American Colleges and Universities, 2018). As conceptualized by David Kolb (1984, p. 38), experiential learning is a pedagogical approach "whereby knowledge is created through the transformation of experience", thus helping students

"develop skills, clarify values, and develop ... capacity to contribute to their communities" (Association for Experiential Education, n.d.)

Driven by increasing student diversity and changing workplace needs, universities must continue to identify and implement opportunities that encourage high-level learning outcomes. Accordingly, the purpose of our paper is to describe how experiential education can facilitate the development of core competencies in undergraduate students, thus supporting their career development goals and workplace preparation. In what follows, we describe three EL opportunities that we oversee in our roles as faculty or staff at Mount Saint Vincent University: service learning in the Department of Psychology, co-operative education in the Bachelor of Public Relations program, and a co-curricular recognition program in Career Services. What these programs have in common is the engagement of the student in an authentic "real world" experience combined with opportunities for critical reflection and constructive feedback. Our paper will demonstrate how the process of learning through the interplay of "action and reflection" carried out within the context of university-community partnerships can build the knowledge, skills, and values consistent with career success in a fast-changing world.

Employees of Tomorrow: Expected Core Competencies

With the assistance of a librarian, we conducted a literature search of EBSCO databases using subject terms such as undergraduate student, core competency, experiential learning, work-integrated learning (WIL), and career development. We also reviewed the standards, learning outcomes, and best practices for undergraduate education identified by various professional associations and educational bodies in North America (e.g., American Psychological Association, Council for the Advancement of Standards in Higher Education). While the literature identifies a broad range of desirable student characteristics and abilities, there exists considerable overlap of perspective as to the nature of the competencies that underlie career success in the 21st century. In what follows, we first summarize the findings most relevant to the Canadian post-secondary context and then propose a new model of core competencies that emphasizes intra- and inter-individual capacities.

Several organizations within Canada have identified career competencies as well as approaches to support the development of competencies in students and, hence, increase employability prospects. The Higher Education Quality Council of Ontario (Deller, Brumwell, & MacFarlane, 2015) categorizes the competencies as consisting of basic cognitive skills (e.g., numeracy, literacy), discipline-specific skills (i.e., specialized skills), higher-order cognitive skills (e.g., communication, critical thinking), and transferable skills (e.g., resilience, initiative). Canadian employers surveyed by Trent University also report valuing communication and initiative, as well as problem solving, flexibility/adaptability, and trainabil-

ity (Hart, 2013). In their view, these skills develop largely through experience: work experience was most highly valued, followed by academic achievement, and then co-curricular experience. Similarly, a large scale survey of 920 employers carried out by the Canadian Association of Career Educators and Employers identified verbal communication and problem solving as valuable competencies, in addition to teamwork, analytical ability, and work ethic (Smith & Lam, 2013). While degree program and field of study were the most important pre-screening criteria for evaluating applicants, employers reported weighting WIL (i.e., co-op, internship) and co-curricular involvement (e.g., sports teams, community service) more heavily than academic performance (Smith & Lam, 2013). Similarly, Finch, Hamilton, Baldwin, and Zehner (2013) report that five of the six highest ranked employability factors are soft skills (i.e., listening skill, interpersonal skill, verbal and written communication skills, and professionalism). While having pre-graduate work experience was less important than possessing soft skills, work experience was more desirable than either academic performance or program reputation. Although Finch et al. (2013, p. 696) recommended that “learning outcomes linked to soft-skills development should take priority in the development of both academic programmes (e.g. degrees or majors) and specific courses”, the reality is that they are typically reserved for training graduate students (Lee, 2018). Finally, the Royal Bank of Canada (2018) assessed the changing demand for occupations in Canada and then developed an innovative approach that clustered occupations by their required skills and the likelihood for disruption by automation in the future. The Royal Bank of Canada

(RBC) predicted an increased demand for foundational skills (e.g., active listening, critical thinking, social perceptiveness, problem solving), digital literacy, and global competency (e.g., cultural awareness, language, adaptability). Significantly, workers possessing foundational skills within each cluster will be more job mobile. In their call to action, RBC suggested that post-secondary institutions implement WIL for all undergraduate students.

While consensus exists regarding employer-preferred core competencies, students possess less insight into the determinants of career success. The Conference Board of Canada reported that while most Social Sciences and Humanities graduates eventually achieve career success, they initially struggle to identify the competencies gained from their degree programs (Edge, Martin, & McKean, 2018). The Conference Board urged post-secondary institutions to better support career preparation, such as by creating more EL opportunities (e.g., co-op, internship, courses with a community service component) and by encouraging personal reflection as a tool to increase awareness of degree-related skills.

Reflection on our experiences in teaching, counseling, and research combined with analysis of the published literature led us to propose a model of core competencies (knowledge, skills, and attitudes) to be developed during undergraduate degree programs, entitled the *Conceptual Model of Core Competency Development Through Experiential Learning*. Two competencies are situated within the individual and draw upon psychological, cognitive, and metacognitive domains. In contrast, the third competency reflects socio-emotional skills that facilitate healthy social interaction with others and the broader com-

munity. These capacities are likely to be interconnected (such that growth in one domain facilitates growth in another), with experiential opportunities combined with critical reflection providing the impetus for their development (see Figure 1).

- (1) **Self-awareness and regulation:** We believe that self-awareness underlies the development of a coherent sense of who we are, and facilitates success in school, work and, ultimately, life. Self-discovery includes the realistic appraisal of personal thoughts, feelings, values, interests, and abilities, including recognition of areas of relative strength and weakness. Self-understanding, when combined with the psychological qualities of motivation, persistence, and resiliency, underlie goal setting (planning), monitoring, and achievement. Moreover, self-regulation helps individuals to act with integrity when faced with personal and professional opportunities that carry both risk and reward, thus contributing to a workplace environment built on fundamental values of honesty, respect, trust, and responsibility.
- (2) **Cognitive and metacognitive processing:** These capacities are foundational to learning, permitting the accumulation of disciplinary knowledge and skill needed for success in many occupations. Students should possess intellectual curiosity (including open-mindedness), critical thinking (including skepti-

cism), and reflective ability (including responsiveness to constructive feedback). These qualities help the individual to broaden and deepen their knowledge, question assumptions and biases, derive meaning from experience, and create new opportunities for growth.

- (3) **Social awareness and responsible citizenship:** Interpersonal skills draw on the above competencies and allow individuals to develop social connections and communication skills, which are at the heart of working with, motivating, supporting, and managing others (e.g., cooperative teamwork, leadership, consensus building, and negotiation). The cognitive skills of perspective taking, active listening, and fair-mindedness support cultural awareness, respect for diversity, and empathy from which community engagement and a compas-

sionate global worldview are fostered.

Together, these three competencies help promote a “growth mindset” (Dweck, 2006) and commitment to lifelong learning, contributing to career and life satisfaction. While these competencies are neither easy to teach or to measure as learning outcomes, we believe that they should be explicitly described, modelled, and encouraged within the undergraduate curriculum as a means of helping students identify and prioritize skills and values intrinsic to their sense of self, educational pursuits, and future careers. The next section describes the process by which experiential education provides a context to facilitate core competency development in students.

Theory of Experiential Education

Experiential education is a philosophical and methodological approach to the teaching-learning process that is derived from the work of notable educators, psychologists,

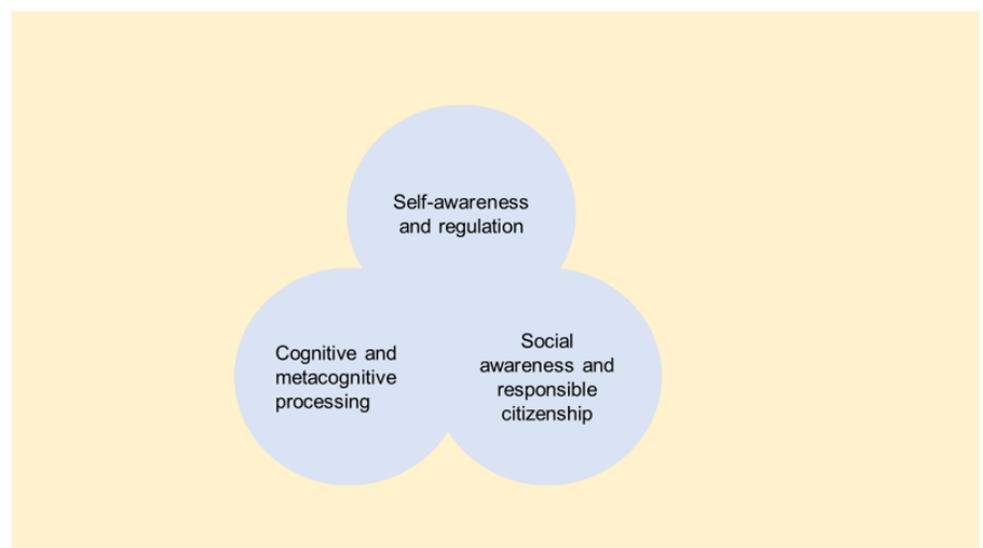


Figure 1. Conceptual model of core competency development through experiential learning.

and philosophers including John Dewey, Jean Piaget, Kurt Lewin, Paulo Freire, and David Kolb. One of the better known approaches is that of Kolb, who views learning as “the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38). For Kolb, learning reflects a cycle of four stages of concrete experience, reflective observation, abstract conceptualization, and active experimentation. That is, learners have an immediate experience, reflect upon the experience (e.g., What happened?), draw abstractions (e.g., What does it mean?), and then test out (apply) their hypothesis (e.g., to solve a problem). These four stages are present during participation in field-based initiatives (e.g., service learning, co-operative education, co-curricular participation) and hands-on classroom activities (e.g., labs, simulations). Different types of experiential activities bring about distinct learning outcomes (i.e., core competencies). For example, volunteering at a soup kitchen or food bank may strengthen social awareness as students question stereotypes while contemplating issues of food insecurity and social inequality. Alternatively, participation in varsity athletics may strengthen ethical conduct, cooperative teamwork, resiliency, and time management.

While Kolb emphasizes the importance of all four stages, reflection upon the experiential activity is essential to learning as it stimulates the process of meaning-making by the student. As expressed by Kolb, “how individuals learn shapes the course of their personal development” (Kolb & Kolb, 2005, p. 195). While several theoretical models and definitions for the construct of reflection have been proposed, the following two perspectives are especially helpful. Boud, Keogh, and Walker (1985, p. 19) directly

connect EL to reflection, with the latter described as an “activity in which people recapture their experience, think about it, mull it over and evaluate it”. Here, the individual returns to the experience, attends to feelings and, most importantly, re-evaluates the experience, which may bring about cognitive, affective, and/or behavioral changes. Alternatively, Moon (2005, p. 1) views reflection as “a form of mental processing ... applied to gain a better understanding of relatively complicated or unstructured ideas and is largely based on the re-processing of knowledge, understanding and possibly emotions that we already possess”. However defined, reflection on experience requires sophisticated mental processes that include “self-awareness, description, critical analysis, synthesis, and evaluation” (Atkins & Murphy, 1993, p. 1190). As such, students may require instructional scaffolding in order to thoughtfully appraise their experience, connect and reconcile it with disciplinary knowledge and concepts, and then construct new meaning and understandings.

Critical reflection on experience, then, is a pedagogical approach that helps students achieve curricular objectives and develop core competencies that underlie career readiness. As students learn how to better “think about their own thinking” (i.e., metacognition), authentic experiential activity has the potential to promote *lifelong learning*, a desirable trait of 21st century life. In what lies ahead, we describe how career counselling facilitates core competency development, including self-awareness.

Shaping Career Development Through Experiential Education

While most theories of career development recognize the influence

of environmental factors, such as significant others, class, culture, personal situations, and occupational stereotypes (Gottfredson, 1981; Holland, 1959; Krumboltz, 2009; Super, 1953), research is increasingly examining how EL shapes career development in undergraduate students. Collectively, the literature has examined different forms of EL during post-secondary education, especially within social science and professional programs.

Man-Nor Hoi and Hiebert (2005) assessed how well Astin’s theoretical model of career development, with its four constructs of work motivation (e.g., the drive to contribute to society), structure of opportunity (e.g., job requirements), work expectations (e.g., the type of work that one is capable of), and sex-role socialization predicted the career goal choices of first year university students. They determined that students with prior work experience were “aware of their own interests, strengths, and needs and were more likely to have selected an occupational goal” (p. 28), and recommended that students receive career-related support and faculty mentoring within their degree programs. Other avenues of career support include academic advising, the use of career planning assignments within the academic curriculum, and interaction with the career advising center (Schwartz, Gregg, & McKee, 2018). Whatever its specific form, career support is more effective when counsellors recognize that the client’s cognitive maturity shapes their processing of the counselling experience. As pointed out by Fisher Turesky and Gronich Mundhenk (2008), younger students may expect the counsellor to identify the sole “right” career pathway while mature clients more easily synthesize complex material and make independent career decisions. Fisher Turesky and Gronich

Mundhenk (2008) further suggest that Kolb's EL Theory frames the process by which students grow cognitively, make career decisions, and achieve vocational identities. As career counsellors support critical reflection on experience, students have opportunity to correct and reinterpret prior misunderstandings and challenges, thus benefitting cognitively and emotionally.

In emphasizing the need to reflect and grow from experience, career counselling theories mesh well with those of experiential education. In particular, Krumboltz's Learning Theory of Career Counselling (Mitchell & Krumboltz, 1996) emphasizes that the career counsellor must encourage students to explore new activities, expand their interests, and learn new skills in preparation for the changing landscape of careers. This is particularly salient in an era where individuals are expected to change careers multiple times over the course of their working lives. In proposing Happenstance Learning Theory, Krumboltz (2009) expanded on his original theory to include the importance of taking actions to generate unplanned events that may lead to new opportunities. For example, engagement in WIL provides career clarification and networking opportunities through access to professional communities (de Villiers Scheepers, Barnes, Clements, & Stubbs, 2018; Zegwaard & Coll, 2011). Krumboltz (2009, p. 151) suggests that his theory can be applied to the educational process by having students "perform valuable learning tasks. Students learn best from their own actions, not from lectures" and to "assess the outcomes of education by the performance of students and graduates in the real world". Perhaps not surprisingly, students who participate in EL opportunities report increased satis-

faction with their college experiences (Schaller, 2005), are better able to articulate and connect their undergraduate program skills to the workplace (Schwartz et al., 2018), and are more likely to be admitted to graduate or professional programs and/or secure employment at graduation (Coker & Porter, 2016). Indeed, employers are responsive to work experience when hiring, typically valuing relevant experience over candidate academic transcripts.

Extrapolating from the above research allows us to make a link to the philosophy of EL: that students become increasingly self-aware and identify career-related goals through their own actions and real world experiences. Career theories in combination with EL theory encourage students to take actions that foster self-awareness, prompt new skills, and set meaningful goals in their quest to find satisfying careers throughout their lifetime. Studies like the ones above demonstrate the growing need for post-secondary institutions to more widely implement EL to encourage core competency development and, ultimately, career success and mobility.

Mount Saint Vincent University employs course-based service learning, program-based co-operative education, and the institutional co-curricular record initiative. These examples provide a nuanced portfolio of opportunities for students that are context specific. Through describing each opportunity and highlighting how they map to our theoretical model of core competencies, we begin the dialogue concerning an aware and contingent deployment of the most appropriate EL opportunity to the pedagogical needs.

Experiential Learning Opportunities at Mount Saint Vincent University

Established in 1873 by the Sisters of Charity of Saint Vincent de Paul, Mount Saint Vincent University was the first institution in Canada dedicated to the higher education of women and, as of 1925, the only degree granting women's college in the British Commonwealth, offering education, nursing, and arts-based programs. These offerings have expanded over time to include undergraduate degrees in Arts and Science as well as graduate and professional degree programs (e.g., Child and Youth Study, Public Relations), including the first Business co-operative education program in the Maritime provinces (established in 1979). While men were admitted to the university beginning in 1967, approximately 80% of today's student body of 3600 are women; moreover, students are typically young (on average, 25 years of age), first generation (66%), and Nova Scotian (17% are international students) ("University Profile", n.d.).

A recent environmental scan reveals a range of individualized EL paths (e.g., practicum, internship, co-operative education, research mentorship, study abroad). Though there exist different types, for different purposes, for different outcomes, at different times, and in different weightings, these experiential opportunities can be generally understood within the framework of Kolb's theory. In the next section, we describe three examples of innovative experiential methodologies during which students can come to better know themselves as individuals and future workers.

Service Learning in the Department of Psychology

Service learning is increasingly advocated in higher education as a high impact educational practice that engages students and facilitates their deep processing of complex academic material, resulting in gains in academic knowledge, communication and leadership skills, as well as awareness of social issues (Celio, Durlak, & Dymnicki, 2011; Eyler, Giles, Stenson, & Gray, 2001; Yorio & Ye, 2012). During SL, students work on real world problems with a community partner (the *service* component) and then reflect on that experience (the *learning* component). As they do so, students apply their knowledge and skills and learn from others who may be dissimilar from them. By definition, SL is distinct from job shadowing, field education, and an internship, all of which are intended to primarily meet the needs of the student. SL also differs from volunteering, which is intended to primarily benefit the recipient. Rather, SL is an experiential opportunity couched within an academic context that provides benefit to both the student and community partner (Eyler et al., 2001).

In 2014, the university formed an EL Subcommittee in support of the Academic Plan, which recommended an increase in “the range of applied learning opportunities so that all undergraduate students can access at least one applied learning experience during their degree” (“Academic Plan”, n.d., p. 7). While a number of WIL experiences (e.g., practicum, internship, co-operative education) were available for students in the Faculties of Professional Studies and Education, fewer opportunities existed in the Faculty of Arts and Science, especially for first year

students. Recognition of the importance of the first-year experience for a successful transition into academic studies, combined with the popularity of Introductory Psychology as an elective course, provided impetus for developing the following SL opportunity.

In 2017, the first author implemented a mandatory SL activity in an Introductory Psychology course. Here, students engaged with international students new to Canada and then linked their experiences to the academic curriculum through reflection on the relationship between culture, language, and behavior. Specifically, small group “Conversation Circles” and a panel presentation were held (five hours in total) during which international students described their assimilation to university and to Canada, including social, cultural, and academic challenges. At each session, the Psychology students actively listened, questioned, and conversed with the international students. As the sessions were intended to allow international students to connect with domestic peers and also practice their oral language skills, SL targeted a genuine need within the university, thus enhancing its authenticity as a learning activity.

As “reflection is the soul of service learning because it connects service with learning and maximizes the effects of both” (You & Rud, 2010, p. 40), the learning activities (i.e., readings, videos, discussion, assignments, statement of learning goals) were intended to foster cognitive, metacognitive, and affective development. For example, assignment questions encouraged disciplinary knowledge by linking concrete experience to the academic curriculum (e.g., How does Maslow’s Hierarchy of Needs help contextualize the experiences of the international students?).

In addition, group discussion on topics such as similarities and differences between Canadian and other cultures was intended to foster social and cultural awareness.

The first author queried whether the SL experience, as described above, would foster general empathy development in her students. This question, answered via questionnaire measures, became the basis of the Honours thesis by Jocelyn Paul. To probe for evidence of other core competencies, the first author subsequently analyzed the in-course reflective writings. Of specific interest was empathic concern within a cultural context, defined as “feeling, understanding, and caring about what someone from another culture feels, understands, and cares about” (Rasoal, Eklund, & Hansen, 2011, p. 8). Ethics approval was granted by the University Research Ethics Board.

In contrast to the questionnaire results from students who did not participate in SL ($n = 55$ females), SL participants ($n = 16$ females) reported that SL increased their understanding of racial and cultural differences as well as their ability to imagine another’s situation and perceive their thoughts and feelings. SL participants also reported an increased desire to be kind and helpful to others. However, no improvements in general empathy (across an array of hypothetical situations and scenarios) or in problem solving, organizational, and communication skills were found (Paul & Bowering, 2018).

The reflections written by the SL participants provide descriptive evidence of our theoretical model’s core competencies.

(1) Self-awareness and regulation: The SL experience prompted critical reflection, deepened self-awareness, and encouraged socio-emotional

growth. As expressed by one student, service learning “made me re-evaluate how I look at my own life and my own challenges”. Or, in the words of another student, “When we can relate to someone, I think that it makes us realize that we can relate to our own self as well to try to better understand why we feel the way we do.”. In making meaning of their experience, participants described a range of emotional reactions. While positive emotions were primarily reported (e.g., feeling happy and inspired by the international students), negative emotion was also evident; e.g., “I was sad that the (international students) felt like (Canadian students) did not want to be friends with them”. Tellingly, some students recognized the need to continue to grow socio-emotionally: “I will take what I have learned from this experience to be a more caring and understanding person”.

(2) Cognitive and metacognitive processing: The students connected their SL experience to the academic curriculum. As they grappled with complex concepts (e.g., cultural relativism, ethnocentrism), they often questioned their personal worldview and its assumptions, reconstructed their understanding, and gained disciplinary knowledge. In so doing, students affirmed the value of open-mindedness. As expressed by one student, “Sometimes we are raised to think that the way that we do things is the “right” way ... sometimes people just stay close-minded ... I wish that more people would be open-minded.”. For some students, cognitive perspective-taking was linked to emotion: “After putting myself in my (international) partner’s shoes, I felt emotionally connected to her.”.

(3) Social awareness and responsible citizenship: Social interest and en-

gagement was high (e.g., “I think that getting to socialize with so many different cultures has been awesome.”). Empathetic feelings that were culturally situated were also evident. As shared by one student, “Empathy allows you to realize that even though someone is from a different country, they still have the same basic needs and feelings as you do.”. In brainstorming ways to welcome international students to campus, students demonstrated social responsibility and leadership. Taken as a whole, these qualities provide support for the university’s vision of being “a model of creative teaching and research that nurtures socially responsible global citizens” (“University Profile”, n.d.).

To summarize, a service learning experience emphasizing cross-cultural interaction is a promising instructional strategy to support core competency development, as described in our theoretical model. Through “action with reflection”, first year students are developing knowledge, skills, and attitudes of considerable personal and professional value (e.g., self-awareness, cultural awareness, concern for others). Despite the increasing recognition of cultural understanding as a core competency, few full-time undergraduates pursue an international mobility experience (e.g., 3.1% in 2014; Universities Canada, 2014). A domestic-international peer experience such as described here may serve to increase cultural awareness and empathetic feelings and support Kuh’s (2008) recommendation that high impact educational practices should begin as early as the first year of university study. More broadly, this service learning endeavor can inspire potential applications in other academic departments and disciplines. Service learning opportunities can optimize the learning outcomes of an academic curriculum and

build the core competencies necessary for our employees of tomorrow.

Co-operative Education in the Bachelor of Public Relations

The Bachelor of Public Relations degree has, over its forty-year history, moved from being solely course-based to include optional inclusion of co-op work terms, and then to its present state of three mandatory co-op work terms. The professional practice of public relations (PR) has long accepted the premise of a progressive career, which starts with entry-level technical skills-based practice, moving through management, and eventual expert prescriber roles. There is a de-facto sense that apprenticeship is a valuable, indeed necessary, practice within the profession. Co-operative education allows for integration of classroom learning with workplace educational partners to further not only knowledge and skills but also to inculcate attitudes that reflect the professional culture itself. Tacit and near osmotic learning are important consequences of the co-op process.

The co-operative education aspect of the PR degree at Mount Saint Vincent University is accredited and consequently has certain features that are integral and periodically audited against. Professional development workshops precede each competitive posting of job opportunities. The content of these workshops is initially focused upon resume crafting and interviewing skills. These workshops are mandatory and, along with course level prerequisites, form an initial gatekeeping function. Our educational partners who offer paid employment opportunities to our students accept applications and short list, interview, and then make offers to candidates in the typical fashion.

Thus, students are exposed to the preparation and skills required for a successful entry into the job market in their chosen field.

Students will be called upon to do a myriad of entry to mid-level public relations and communications functions in their co-operative education work terms. Our employers are considered educational partners, and provide ongoing feedback with a depth and frequency beyond typical workplace interactions. Many employers see themselves as mentors and this level of distributed pedagogical responsibility dovetails well with the mandatory work site visits, discussions via social media, and advice offered by academic staff as the work term proceeds.

There are three sequenced and prescribed semester-long co-operative education experiences in our undergraduate PR degree. These work semesters are academically situated in that they are treated as courses, complete with reflective learning criteria embedded in the reportage that each student provides to their academic advisor and, in some cases, their peers as well. Reflective learning takes different forms depending upon the particular co-op work term and there is escalating commitment in terms of how the link from reflective learning becomes demonstrably manifested. For example, in an early work term, students may be guided to consider and report upon the organizational culture, as they experience it, at their workplace. These reflections are compared and contrasted with their peers' perspectives via discussion forums. In later work terms, this type of internal cultural scan may be deployed for purposes of strategic internal communication. Consequently, what begins as observations and reflection eventually is also put into practice by the student through educational

scaffolding. The material outcome of the three work terms taken in concert is a portfolio of work, which serves to close the loop between a student's experiences, reflections upon those experiences, and the production of evidence of their capability consequential to the process.

It is not uncommon for students to be offered full time employment by educational partners at the conclusion of their work term. This "raises the stakes" of the co-op experience for students and ultimately creates two identifiable strategies which they deploy when choosing work terms. One group of students has a highly refined sense of the sector, and perhaps even employer, that they wish to target. They tend to have a narrow focus that reflects this proclivity. The other group of students is uncertain as to what they want out of employment, and they tend to undertake a range of opportunities in an effort to gain experience sufficient in breadth to openly assess what they want to do. In a sense, the student's own choice of what organizations to apply to when seeking co-operative education work terms is governed by a sort of meta-level learning goal, although this may be poorly articulated in the early stages of their job search. Regardless, this highlights that successful experiential education is structured in such a way as to allow for multiple individuated outcomes originating from a structurally similar initiative.

The co-operative education aspect of the BPR program is challenging to administer because it exists at the nexus of a complex multi-stakeholder environment. The intersection of employer and employee needs and wants, education as a growth-oriented process, and academic requirements for graduation is potentially elusive. However, this complexity is also a key feature that allows for a high

level of commitment and perceived valence on the part of the various individuals and organizations who are involved in co-operative education experiences.

Ultimately, results matter. In the most recent survey (2016-2017) of co-op graduates, more than 80% secured employment in their field of study within six months of graduation, and this rose to 91% within one year of graduation. These graduates are employed in all sectors of the economy. Of these graduates, 91% report that the co-op experience was effective in helping secure full-time employment after graduation. Most telling is that 94% of co-op program graduates felt prepared for the workforce after completing their degree. This is important because the literature regarding outcomes of co-operative education is mixed. For example, Wessels and Pumphrey (1996) suggest that there is an insignificant effect of co-operative education programs upon eventual hourly wage of graduates. If the empirical evidence is not uniform in identifying positive financial or employment outcomes for students in programs with co-operative education experiential learning, then the self-reported impressions become important markers of individual level change and utility of the experience. This understanding is mirrored in the Canadian context within, for instance, Kramer and Usher's (2011) report *Work-integrated learning and career-ready students: Examining the evidence*. Thus, we consider that evidence of the efficacy of WIL in the form of co-operative education programs need not be expressly concerned with instrumental outcomes in the workplace.

We therefore postulate that this is an example of an experiential education opportunity that broadly incorporates the three theoretical heu-

ristic categories that we explicated earlier: self-awareness and regulation, cognitive and metacognitive processing capacity, and social awareness and responsible citizenship.

Thus far, we have described course-level and program-level experiential education opportunities at our home institution. We next examine a university-wide initiative, the Co-Curricular Recognition Program.

Co-Curricular Recognition Program in Career Services

In the past decade, post-secondary institutions in Canada have moved toward documenting learning outside the classroom via a Co-Curricular Record (CCR). The Co-Curricular Record has three pillars: (1) to provide a “database of eligible co-curricular activities that is searchable by students, allowing them to peruse a broad range of opportunities”; (2) “to connect experience to learning, to encourage self-reflection and self-awareness, and highlight to the student their personal growth and development”; and (3) to provide “a formal and official institutional document that validates student involvement” (Elias & Drea, 2013, p. 2-3). Recommendations that support implementation of a CCR include identifying the activity-based competencies, formulating learning agreements and plans for activities, and providing workshops to facilitate student reflection (Stirling & Kerr, 2015).

Our university’s CCR was launched in 2010 by Career Services and the Retention Committee based on the premise that students attend university primarily for career-related reasons, and are more likely to persist if they link their education and career goals. Supporting research suggests that academic persistence is increased when students participate in educa-

tionally purposeful activities, find their studies meaningful, and apply their learning to their goals (Kuh, 2016). Moreover, career satisfaction following graduation is enhanced by exposure to a range of educational and extra-curricular activities (Campbell & Unger, 2008).

The CCR recognizes and records achievement in the categories of leadership, varsity athletics, clubs and societies, awards, professional development, volunteer work, and global engagement and, to date, approximately 1800 students have participated across 300 unique activities. To encourage self-examination, students answer reflection questions after each co-curricular activity. Here, they not only identify their newfound skills but also explain how the competency was developed (with an example) and will apply to other activities, volunteer work, education, or employment. To ensure clarity and relevance, the competencies in the most recent CCR (launched in January 2019) were revised in consultation with students and after review of other Canadian post-secondary CCRs and the CAS Learning and Development Outcomes (Council for the Advancement of Standards in Higher Education, 2015). To support goal setting, the newest CCR also requires students to state their progress in competency mastery (i.e., developing, competent, advanced) as well as the competencies they hope to achieve in the future. Students further reflect upon the impact of their activities on educational and career plans through workshops facilitated by Career Services.

As demonstrated by the following examples, competency development through co-curricular activities relates well to our theoretical model.

(1) Self-awareness and regulation: development of intrapersonal awareness (e.g., learning one’s likes and dislikes from a volunteer experience at a local food bank), adaptability (e.g., learning to multi-task as a student leader with many responsibilities), time management/ organization/planning (e.g., learning to balance academics with the demands of being a varsity athlete), and resiliency (e.g., learning to cope after an activity failed to turn out as expected and then re-evaluating how to move forward to goals).

(2) Cognitive and metacognitive processing: development of critical thinking skills (e.g., from participation in a professional development activity, such as researching for a conference presentation) and creativity (e.g., coming up with ways to market a student society to peers).

(3) Social awareness and responsible citizenship: development of humanitarian and civic values (e.g., volunteering with a local shelter), interpersonal/team work skills (e.g., collaborating to organize a student event), and cultural awareness including respect for diversity (e.g., participation in a campus multicultural night).

The impact of extracurricular participation on student development has been confirmed through our university’s measurement of CCR outcomes in 2015 for the International Survey of Peer Leaders (Kenedy & Young, 2016). Prior to data collection, ethics approval was granted by the University Research Ethics Board. Over 50% of CCR respondents ($n = 93$) reported increases in skills desired by employers. Gains were reported for adaptability, ethical decision-making, and time management, as per our model’s self-awareness and regulation competency. Respondents also

reported increases in critical thinking, creativity, problem solving and decision-making, analysis from a new perspective, organizational and project management, and written and oral presentation skills, as per our model's cognitive and metacognitive processing competency. As well, increases were reported for interpersonal skills, leadership and team work, relationships with work colleagues, as well as knowledge, interaction, and understanding of people from backgrounds different than their own, as per our model's social awareness and responsible citizenship competency. In line with students' motivation to learn work-worthy skills, respondents also confirmed that hands-on experience allowed application of knowledge to a real world setting and connection of pieces of information from different experiences.

Benefits further extended to their overall experiences as students. Respondents (more than 50%) reported that they belonged to and were welcome at university, contributed to the campus community, experienced more meaningful interactions with professors, staff, and peers, and were knowledgeable about campus resources. Not surprisingly, involvement in co-curricular activities also supported academic success. Respondents (more than 50%) endorsed the desire to persist to graduation and to engage in continuous learning after graduation. In fact, compared to the university retention rate (2011–2015), 12% more participants in the CCR program were retained (T. MacDonald, personal communication, July 29, 2015 and November 22, 2016) with 67% later graduating (T. MacDonald, personal communication, December 14, 2018).

Together, the data suggest that students are learning relevant skills from their co-curricular experiences that support academic and

professional development. Through reflection on experience, we believe that students formulate meaning from experience, creating connections between personal interests, values, emotions, and workplace skills. In turn, students set goals less focused on choosing the "right" career, and are more at ease with uncertainty about what the future holds. We agree with Campbell and Dutton (2015) who, from interviews of young adults navigating their career journeys, emphasized the need to purposefully experiment and to keep taking steps because "they can't know the consequences of taking that first step before they do it, but the new learning that comes from it will feed the next step" (p. 81).

Recommendations

Incorporating the HIEP of experiential learning into post-secondary study is more important than ever given the context of a fast-changing world combined with the increasing diversity of students being admitted to university. Based on our first-hand observations of the beneficial impact of EL on student development, we offer the following recommendations for consideration.

(1) Role of experiential learning: EL must be viewed as an essential component of post-secondary educational philosophy and practice, and not as a "value-added" feature when circumstances permit. Institutions are encouraged to design and implement EL processes and policies that appropriately reflect their mission statement and fundamental values while addressing student, academic program, and community needs. In so doing, students, employees, alumni, and societal stakeholders need to be consulted and invited into the conversation. Experiential education presents an opportunity for an institution

to model respect and responsiveness to others through collegial and communicative partnerships.

(2) Adoption of an experiential record: The way of the future is coordinating and recording EL activities (e.g., service learning, co-operative education, co-curricular experiences) via one institutional document ("experiential record"), such as now occurs at Wilfred Laurier University ("Laurier Introduces New Tool", 2018). An official document maintained by the Registrar achieves at least two purposes: it describes and collates student accomplishments and readiness for a competency-based workforce (e.g., for prospective employers) and supports institutional strategic planning and accountability (e.g., to government, donors, general public).

(3) Allocation of resources: Adequate resources (financial and otherwise) must be budgeted and periodically reviewed. An environmental scan of the institution's current practices and resources will identify existing gaps and shortfalls. Examples of support include an EL centre with dedicated staffing and expertise. Here, staff can connect (e.g., identify community partner needs), enable (e.g., prepare students for the EL activity, including discussion of codes of conduct, confidentiality, and boundary setting), and mediate (e.g., ensure communication flow) the relationship between students, community partner, and the university. In tandem with the institutional teaching and learning center, staff can support faculty through resource development (e.g., training videos, provision of sample syllabi and reflection assignments) and help balance demands on students who already hold multiple responsibilities (e.g., family, paid employment).

(4) Program development: When contemplating the inclusion of EL opportunities within a program, departments and Academic Deans must engage in top-down curriculum and workload planning. EL can be configured as a series of punctuated and process-oriented “stepping stones” through which to meet program objectives. As part of that, a reconfiguration of the understanding of the nature of the work and skill set of faculty and support staff is required. Faculty and staff, especially those new to EL, require mentoring in best practices for development of the course (e.g., course organization, pairing course objectives with specific EL activities) and support of the student (e.g., scaffolding instructional methods to guide critical reflection on action). Additional support through adjustment of course caps or the provision of teaching assistants may help address workload demands. Departments also will need to monitor and measure (quantitatively and qualitatively) student outcomes over time, and adjust accordingly.

(5) Student development: Permitting choice among EL activities allows the student to control and leverage holistic development (including intellectual, socio-emotional, and career-ready outcomes) and more likely results in engagement and relevant pedagogical outcomes. Whatever the choice of activity, students require preparation for, monitoring of, and debriefing to ensure engagement and growth. Students require multiple opportunities (e.g., via writing assignments, peer-to-peer discussion, and provision of constructive feedback from community partner staff) to process and meaningfully relate experience to their core values, career goals, and academic curriculum. In the journey of self-discovery, some students will require

additional support beyond what their faculty instructor can provide; liaising with student and career services may help address and resolve issues that arise. For example, a challenging experience that the student perceives as a “failure” provides a valuable opportunity to process anxiety and self-doubt and then build an “emotional toolkit” that includes tolerance for ambiguity, resiliency, coping skills, and help-seeking behaviours. Faculty and staff model emotional competencies by engaging supportively, empathically, and compassionately with students. With rising mental health concerns in today’s student cohort, EL opportunities that allow the student to know herself emotionally (not just intellectually) and learn coping skills are invaluable; this presents an intriguing opportunity for future research.

(6) Logistical issues: Successful implementation requires careful planning. For example, in advance of course registration, students should be made aware of whether a course requires EL (e.g., via calendar and time-table notations). Assessment and management of risk (e.g., student safety, safety of others, university liability) is required. Lengthy unpaid EL activities (e.g., internship, practicum) impose financial pressures on students; alternatively, the offer of well-paid employment poses a temptation for the student to leave university before degree completion.

Conclusions

When we invite serendipity into the classroom, though it may come with the unforeseen, the results can be positive. Our changing world requires openness to a variety of career paths and learning outcomes, with post-secondary institutions bearing a

responsibility to prepare an increasingly heterogenous cohort of students to be engaged *citizens of tomorrow*. We have provided an evidence-based overview of how our university has cultivated and coordinated three practices of benefit to undergraduate students, community partners, and potential employers, and have situated these examples within a competency framework that emphasize self-awareness and regulation, cognitive and metacognitive processing, and social awareness and responsible citizenship. Our data suggest that undergraduate students who participate in EL opportunities are likely to reap academic, personal, and professional benefits.

We are left to consider what it is that makes EL such a powerful tool in the university context. Central to how we understand the potential of EL is the nature of moving beyond solely fact-based didactic learning (“knowledge transfer”). EL is undertaken in the messy world of human interactions and, because of this, constitutes a socialization opportunity. Naturally, this then opens up the requirement to confront and manage uncertainty at the individual level. Uncertainty, and its close cousin doubt, are hurdles to be overcome on the path towards self-efficacy. Undergraduate students are keenly aware of contrived situations and predictably wary of situations not deemed authentic. EL exposes students to others in a relevant social context, complete with uncertainty, emotionality, and perceived social risk. Self-awareness, regulation of thought and emotion, and concern for the well-being of others are some of the tacitly learned tools for success. If it takes a village to raise capable citizens, then removal of the influence of that village during critical educational junctures in a young person’s life seems misguided.

Through our examination of a series of strategic moves toward better integration of EL in one university, we aim to enhance the dialogue concerning EL as a directed and effective intervention toward the creation of healthy, confident, and capable citizens of tomorrow. Experiential learning, whether implemented at the university, program, or course level, is a powerful educational practice that can bring about desirable learning outcomes within cognitive, affective, and behavioral domains.

References

- Academic Plan: *Mount Saint Vincent University*. (n.d.). Retrieved from <http://www.msvu.ca/site/media/msvu/AcademicPlan.pdf>
- Association for Experiential Education. (n.d.). *What is experiential education?* Retrieved from <http://www.aee.org/what-is-ee>
- Association of American Colleges and Universities. (2018). *High-impact educational practices*. Retrieved from <http://www.aacu.org/leap/hips>
- Atkins, S., & Murphy, K. (1993). Reflection: A review of the literature. *Journal of Advanced Nursing*, 18(8), 1188-1192.
- Boud, D., Keogh, R., & Walker, D. (1985). What is reflection in learning? In D. Boud, R. Keogh, & D. Walker (Eds.), *Reflection: Turning experience into learning* (pp. 7-17). London, UK: Kogan Page.
- Campbell, C., & Dutton, P. (2015). *Career crafting the decade after high school: Professional's Guide*. Toronto, ON: Canadian Education and Research Institute for Counselling.
- Campbell, C., & Ungar, M. (2008). *The decade after high school: A professional's guide*. Toronto, ON: Canadian Education and Research Institute for Counselling.
- Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, 34(2), 164-181.
- Coker, J. S., & Porter, D. J. (2016). Student motivations and perceptions across and within five forms of experiential learning. *Journal of General Education*, 65(2), 138-156.
- Council for the Advancement of Standards in Higher Education. (2015). CAS learning and development outcomes. In J. B. Wells (Ed.), *CAS professional standards for higher education* (9th ed.). Washington, DC: Author.
- De Villiers Scheepers, M. J., Barnes, R., Clements, M., & Stubbs, A. J. (2018). Preparing future-ready graduates through experiential entrepreneurship. *Education + Training*, 60(4), 303-317.
- Deller, F., Brumwell, S., & MacFarlane, A. (2015). *The language of learning outcomes: Definitions and assessments*. Toronto, ON: Higher Education Quality Council of Ontario.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.
- Edge, J., Martin, E., & McKean, M. (2018). *Getting to work: Career skills development for social sciences and humanities graduates*. Ottawa, ON: The Conference Board of Canada.
- Elias, K., & Drea, C. (2013). The co-curricular record: Enhancing a postsecondary education. *College Quarterly*, 16(1), 1-8.
- Elon University Center for Engaged Learning. (2014). *Faculty change towards high-impact pedagogies*. Elon, NC: Author. Retrieved from <http://www.centerforengagedlearning.org/faculty-change-towards-high-impact-pedagogies/>
- Eyler, J., Giles, D. E. Jr., Stenson, C. M., & Gray, C. J. (2001). At a glance: What we know about the effects of service-learning on college students, faculty, institutions and communities, 1993-2000: Third Edition. *Higher Education*, Paper 139. Retrieved from <http://digitalcommons.unomaha.edu/slcehighered/139>
- Finch, D. J., Hamilton, L. K., Baldwin, R., & Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education + Training*, 55(7), 681-704.
- Fisher Turesky, E., & Gronich Mundhenk, L. (2008). Going beyond traditional career development theories: Individualizing counseling using cognitive stage and experiential learning theories. *Canadian Journal of Career Development*, 7(2), 3-7.
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology*, 28(6), 545-579.
- Hart, J. (2013). *Employer responses to the co-curricular record*. Peterborough, ON: Trent University. Retrieved from <http://www.sfu.ca/content/dam/sfu/deangrad-studies/ProfessionalDevelopment/Employer%20Responses%20to%20the%20Co-Curricular%20Record%20-%20Report.pdf>
- Holland, J. L. (1959). A theory of vocational choice. *Journal of Counseling Psychology*, 6, 35-44.
- Kenedy, R. A., & Young, D. (2016). *Canadian and international peer leader experience: Theoretical and research based perspectives*. Presented at the 2016 35th Annual Conference on the First-Year Experience, Orlando, FL.
- Kilgo, C. A., Ezell Sheets, J. K., & Pascarella, E. T. (2015). The link between high-impact practices and student learning: Some longitudinal evidence. *Higher Education*, 69, 509-525.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193-212.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Kramer, M., & Usher, A. (2011). *Work-integrated learning and career-ready students: Examining the evidence*. Toronto, ON: Higher Education Strategy Associates.
- Krumboltz, J. D. (2009). The happenstance learning theory. *Journal of Career Assessment*, 17(2), 135-154.
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: Association of American Colleges and Universities.
- Kuh, G. D. (2016). Making learning meaningful: Engaging students in ways that matter to them. *New Directions for Teaching and Learning*, 145, 49-56.
- Laurier introduces new tool that tracks student's extra-curricular activities. (2018, December 4). *Waterloo Chronicle*. Retrieved from https://www.therecord.com/news-story/9066360-laurier-introduces-new-tool-that-tracks-student-s-extra-curricularactivities/?utm_source=academica+top+ten&utm_campaign=c4a807c0d4-email_campaign_2018_12_05_04_27&utm_medium=email&utm_term=0_b4928536cf-c4a807c0d4-51891533
- Lee, N. E. (2018). Skills for the 21st century: A meta-synthesis of soft-skills and achievement. *Canadian Journal of Career Development*, 17(2), 73-86.

- Man-Nor Hoi, M., & Hiebert, B. (2005). Career development of first-year university students: A test of Astin's career development model. *Canadian Journal of Career Development, 4*(2), 22-31.
- Mitchell, L. K., & Krumboltz, J. D. (1996). Krumboltz's learning theory of career choice and development. In D. Brown, & L. Brooks (Eds.), *Career choice and development (3rd ed.)*. San Francisco, CA: Jossey-Bass.
- Moon, J. (2005). Guide for busy academics No. 4. Learning through reflection. *The Higher Education Academy, ESCalate*. Retrieved from <http://nursingmidwifery.tcd.ie/assets/director-staff-edu-dev/pdf/Guide-for-Busy-AcademicsNo1-4-HEA.pdf>
- Paul, J., & Bowering, E. (2018, October). *Does Service Learning increase empathy in Introductory Psychology students?* Poster presented at the International Society for the Scholarship of Teaching and Learning, Bergen, Norway.
- Rasoal, C., Eklund, J., & Hansen, E. M. (2011). Toward a conceptualization of ethnocultural empathy. *Journal of Social, Evolutionary, and Cultural Psychology, 5*(1), 1-13.
- Royal Bank of Canada. (2018). *The coming skills revolution. Humans wanted: How Canadian youth can thrive in the age of disruption*. Retrieved from http://www.rbc.com/dms/enterprise/futurelaunch/_assets-custom/pdf/RBC-Future-Skills-Report-FINAL-Singles.pdf
- Schaller, M. A. (2005). Wandering and wondering: Traversing the uneven terrain of the second college year. *About Campus, 10*(3), 17-24.
- Schwartz, B. M., Gregg, V. R., & McKee, M. (2018). Conversations about careers: Engaging students in and out of the classroom. *Teaching of Psychology, 45*(1), 50-59.
- Smith, P., & Lam, M. (2013). *2013 Campus recruitment report educator summary. Canadian Association of Career Educators and Employers*. Retrieved from http://www.cacee.com/_Library/Campus_Recruitment_Docs/2013_CA-CEE_Campus_Recruitment_Report_-_Career_Educator_Summary.pdf
- Stirling, A. E., & Kerr, G. A. (2015). Creating meaningful co-curricular experiences in higher education. *Journal of Education & Social Policy, 2*(6), 1-7.
- Super, D. E. (1953). A theory of vocational development. *American Psychologist, 8*(5), 185-190.
- Universities Canada (2014). *Internalization at Canadian universities: Quick facts*. Retrieved from <https://www.univcan.ca/universities/facts-and-stats/internationalization-at-canadian-universities-quick-facts/>
- University profile*. (n.d.). Retrieved from <https://www.msvu.ca/en/home/aboutus/universityprofile/default.aspx>
- Wessels, W. J., & Pumphrey, G. (1996). The impact of cooperative education on wages. *Journal of Cooperative Education, 32*, 36-51.
- Yorio, P. L., & Ye, F. (2012). A meta-analysis on the effects of service-learning on the social, personal, and cognitive outcomes of learning. *Academy of Management Learning & Education, 11*(1), 9-27.
- You, Z., & Rud, A. G. (2010). A model of Dewey's moral imagination for service learning: Theoretical explorations and implications for practice in higher education. *Education and Culture, 26*(2), 36-51.
- Zegwaard, K. E., & Coll, R. K. (2011). Using cooperative education and work-integrated education to provide career clarification. *Science Education International, 22*, 282-291.

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