

**Refereed Proceedings of the  
2<sup>nd</sup> International  
Research Symposium on  
Cooperative and Work-Integrated  
Education, Victoria, British  
Columbia, Canada**



**World Association for Cooperative  
Education (WACE)**

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*Editors*

*Karsten E. Zegwaard, Marty Ford, Norah McRae  
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**Front cover:** Victoria Harbour with the Fairmont Empress Hotel and British Columbia Legislature, Victoria, British Columbia, Canada

# Refereed Proceedings of the 2<sup>nd</sup> International Research Symposium on Cooperative and Work-Integrated Education, Victoria, British Columbia, Canada

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# Electronic Portfolio Integration in a Professional Development Course: A Platform to Explore Essential Student Learning Outcomes

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## ABSTRACT

The following study utilizes an eportfolio platform to showcase learning and current skillsets during an introductory level professional development course for cooperative education students at a large, research intensive institution. The researchers redesigned course activities to allow students to demonstrate essential learning outcomes derived from the Association of American Colleges and Universities (AAC&U) LEAP Report (2008). While it is recognized that the student learning outcomes identified in the LEAP Report are intended to be examined through summative analysis at the conclusion of one's undergraduate experience, this study proposes that these learning outcomes can be encouraged early during students' collegiate careers through feedback in an eportfolio development process. The results of this study suggest further research should be conducted to longitudinally evaluate students' understanding and ability to demonstrate the LEAP Report's essential learning outcomes within the context of a cooperative education curriculum.

## INTRODUCTION

With an increasing number of college students leaving the college and university environment with high levels of debt, it is critical that undergraduate students ensure their readiness for full-time employment post-graduation. Higher education institutions are considering best practices to ensure students are prepared for their transitions to the world of work. Specifically, institutions offering formal cooperative education and internship opportunities for students provide a sound platform for which to help ensure students' future success in a professional context.

Employers are challenging higher education institutions to focus on specified learning outcomes to better prepare students for future professional experiences. Many of these essential learning outcomes derive from the Association of American Colleges and Universities (AAC&U) Liberal Education and America's Promise (LEAP) Report (2008). The following study focuses on the suggested learning outcomes resulting from the LEAP Report and utilizes an electronic portfolio (eportfolio) method to showcase student learning and perceived confidence prior to one's first cooperative education experience.

## EPORTFOLIO BACKGROUND

An eportfolio is a "digitized collection of artifacts, including demonstrations, resources, and accomplishments that represent an individual, group community, organization, or institution" (Lorenzo & Ittelson, 2005, p. 2). For college students, the eportfolio represents a container of selected work to showcase their skills and a reflection of what they learned. Selected work can be text-based or presented using a variety of multimedia elements like graphics, images, audio and/or movies. ePortfolios can be built and maintained for a specific learning experience, college course or over the span of several academic terms. The eportfolio can serve as a repository for significant student experiences as a student demonstrates competencies that have to be showcased.

For students, faculty, and administrators, the benefits of eportfolios include: providing the space to thoughtfully analyze student learning experiences; showcase skills and accomplishments to potential employers; and promoting opportunities for students to chart and understand their academic pathways (Miller & Morgaine, 2009; Zubizaretta, 2004). Popularity of eportfolios has grown immensely for institutional use worldwide (Batson, 2010; Chatham-Carpenter, Seawel, & Raschig 2010; Mayowski & Golden, 2012). Current research literature on eportfolios focuses on how the structure and implementation of eportfolios impact institutional assessment efficiency for accreditation and moving beyond

standardized testing to feature authentic forms of learning (Lorenzo & Ittelson, 2005). Students' work in eportfolios offers institutions easy access to examples illustrating how students are meeting institutional learning objectives (Grindley et al., 2010). For students, eportfolios have become a structure to promote reflection, integrate learning across courses and time, self-assess abilities, and plan academic pathways for further success (Chen & Penny Light, 2010; Miller & Morgaine, 2009). Learning through an eportfolio offers, "an integrative approach to student learning [that] encourages students to take responsibility for documenting and demonstrating their own abilities over time and within a broader learning landscape that encompasses the various domains that comprise their intellectual lives" (Chen & Penny Light, 2010, p.3). In a sense, higher education is promoting students taking ownership of their learning by asking them to provide a personal interpretation of their education while attaching meaning of the learning to their lives.

The Becta (2007) study defined eportfolios as instruments that are "part of a personal online space, where learners can store their work, record their achievements (a repository function) and access personal course timetables (an organizing function)" (p. 4). Further, "eportfolios make progress and attainment more obvious to both teachers and students, because viewing and revisiting the repository of work reveals development, achievements, strengths and weaknesses" (p. 5). Due to these aforementioned utilities, eportfolio models can be important tools for educators and students alike.

ePortfolio methods for examining student learning are becoming increasingly more common in higher education settings due to the versatility of the platform for showcasing one's competencies and lived experiences. Reardon, Lumsden, and Meyer (2004) utilized eportfolios to showcase student learning over the course of students' undergraduate experiences. The researchers claim that eportfolios are important for job seekers to "show examples of their work to potential employers and to document accomplishments included on the resumes" (p. 369). Further, these researchers postulated that eportfolios can promote "student learning, career preparation, and employment" as well as provide a "high-visibility program to positively support student recruitment and retention" (p. 372).

Within eportfolio literature, a small number of studies employed eportfolios in professional development programs. One study focused on the utility of an eportfolio system in a first-year engineering course (Carroll, Markauskaite, & Calvo, 2007) while another noted how graduate students found that eportfolios "facilitated reflection on their professional practice, especially in relation to the competencies they had developed" (Wakimoto & Lewis, 2014, p. 55). Another series of studies focused on advanced engineering students completing eportfolio preparation workshops towards the end of the collegiate experience (Sattler & Turns, 2015; Kilgore, Sattler, & Turns, 2013). Results focused on how eportfolios facilitated student development towards effective reflection through scaffolding. Few studies present evidence in how students are encouraged to actively transform their experiences around identified learning objectives to better articulate their development and learning.

The Association of American Colleges and Universities (AAC&U) conducted research about essential student competencies driven by feedback from employers and recent college graduates. AAC&U determined that higher education institutions should provide opportunities for students to engage in experiences that focus on "important knowledge and skills but also experience putting those knowledge and skills to practical use in 'real-world' settings" (Hart, 2006, p. 1). Further, AAC&U's participating employers and recent graduates asserted that narrowly focused educational practices should be discouraged in higher education; rather, institutions should use liberal education models with a breadth of learning outcomes.

AAC&U's participating employers outlined four essential learning outcomes for students during their higher education experience: "integrative learning, knowledge of human cultures and the physical and natural world; intellectual and practical skills, and personal and social responsibility" (p. 2). Additionally, when surveyed about the most important skillsets necessary for new hires, employers articulated that they were most interested in "(1) teamwork skills, (2) critical thinking and analytical reasoning skills, and (3) communication skills" (p. 3). Alarming, 63% of these same employers do not believe that new college graduates have the skills necessary to be successful in today's global economy.

The employers providing feedback in this study provided several suggestions for institutions of higher education. Specifically, these employers suggested that higher education institutions should provide greater emphasis on their top five selected learning outcomes in the areas of "concepts and new developments in science and technology; teamwork skills and the ability to collaborate with others in diverse group settings; the ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences; the ability to effectively communicate orally and in writing; and critical thinking and analytical reasoning skills" (p. 8).

Both employers and recent college graduates attest to the importance of real-world experiences as a vehicle for putting skillsets into action. Creating avenues to promote the integration of these skillsets in lived experiences should be a priority for higher education institutions. In particular, formal cooperative education and internship programs should be utilized to better prepare students for their transitions to the world of work by focusing on essential learning outcomes and skillsets provided by AAC&U's LEAP Report.

In order to appropriately assess student learning outcomes and skillsets identified by the LEAP Report, AAC&U began the Valid Assessment of Learning in Undergraduate Education (VALUE) Project. "The VALUE Project developed ways for students and institutions to collect convincing evidence of student learning drawn primarily through the work students complete through their required curriculum, assessed by well-developed campus rubrics and judgments of selected experts, and demonstrated through electronic portfolios (eportfolios) that can be organized and presented in ways appropriate for different audiences" (AAC&U, 2010, p. 30).

The researchers in this study received grant support from the Ohio Means Internships & Co-ops (OMIC) program to study essential student learning outcomes in connection with cooperative education. OMIC is an initiative driven by the State of Ohio to promote workforce development within the state and also to aid Ohio in becoming a premier work-integrated learning setting in the world. The researching institution (i.e., the University of Cincinnati) received an OMIC grant and is charged with the goal of preparing students who are work ready when they graduate, engaging businesses in the higher education system as talent investors, and assisting institutions of higher education to be responsive to the needs of students and businesses. The researchers in this study utilized the grant to develop curricular components and teaching methods to promote learning outcomes in professional development coursework.

## METHOD

This study focuses on the promotion of essential learning outcomes and student skillsets through the medium of an introductory level professional development course at a large, research institution. A professional development course, Introduction to Cooperative Education, was selected as the appropriate course to initially promote the LEAP Report's suggested student learning outcomes and desired skillsets due to the course serving as the gateway to cooperative education work experiences for undergraduate students. The learning outcomes emphasized in this study were based on the survey results from the AAC&U LEAP Report (2008). As a result of the eportfolio model suggested as the ideal means for promoting student learning in relation to the LEAP Report's recommended learning outcomes, an eportfolio model was incorporated into one section of Introduction to Cooperative Education over an academic semester.

The researchers employed an eportfolio method in an Introduction to Cooperative Education course comprised of 39 first-year students, primarily representing baccalaureate degree-seeking students in the information technology major. ePortfolios were used in the course as a repository for student assignments, a reflection tool, and a means for students to project an electronic identity to external constituents (e.g., peers, faculty, prospective employers etc.). Assignments for the eportfolio course were designed to address two specific learning outcomes derived from the AAC&U VALUE Project. The specific learning outcomes identified for the courses were centered on student competence in teamwork and written communication. The identified learning outcomes were further validated as essential undergraduate student learning outcomes by employer partners associated with the cooperative education program at the researching university. When essential learning outcomes for undergraduate students were identified by AAC&U the researchers administered an informal survey to information technology employer partners to measure the extent to which employer partners valued the essential learning outcomes in potential employees. Selection of the specific learning outcomes were driven by survey results from the information technology co-op employer partners. The results of the survey indicated that employer partners of the researching university significantly valued students with strong teamwork and written communication competencies.

The researchers then created assignments that allowed students to reflect upon their competence within areas of teamwork and written communication. The researchers transformed the AAC&U's metarubrics for teamwork and written communication into feedback rubrics that replaced criteria with qualitative questions to increase student understanding of the rubric criteria (Rhodes & Finley, 2013). Feedback was provided to students in the eportfolio section of Introduction to Cooperative Education at the conclusion of each assignment through a rubric evaluation administered by peers and a rubric evaluation administered by the researchers.

The researchers established the following hypotheses regarding the use of eportfolios as an assignment repository, a reflection tool, and a means for students to project an electronic identity. First, student confidence in addressing AAC&U's essential student learning outcomes could be enhanced through the use of intentionally designed assignments that require students to reflect on specified competencies (i.e., teamwork and written communication). Second, survey results would show that students truly valued feedback from external constituents and would use the feedback in the design of their eportfolios. The first hypothesis was tested by administering pre-assignment and post-assignment confidence surveys to students participating in the course. The confidence surveys required students to rate the extent to which they felt confident in their ability to address personal competence in areas of teamwork and written communication. The second hypothesis was tested through a final survey administered to the students at the conclusion of the course.

#### RESULTS: STUDENT CONFIDENCE

The researchers tested the first hypothesis to determine if eportfolios could be used as a tool to aid in the facilitation of enhanced levels of student confidence with relation to teamwork competencies. To test the hypothesis, the researchers created an assignment requiring students in the Introduction to Cooperative Education course to reflect on their confidence articulating significant teamwork experiences to prospective employers. Prior to the assignment being given to the students, the researchers required the students complete a pre-assignment confidence survey evaluating their levels of confidence articulating significant teamwork experiences. For the assignment, students were encouraged to utilize creativity in their articulations of teamwork through the eportfolio platform. Once the students completed their teamwork eportfolio assignments, the researchers conducted a post-assignment confidence survey. A total of 39 students completed the pre-assignment and post-assignment confidence surveys. A paired-samples t-test was conducted to compare students' confidence levels articulating their teamwork competencies to prospective employers before and after their completion of the eportfolio assignment. The results of the paired-samples t-test indicated a significant difference in students' level of confidence before the assignment ( $M=4.564$ ,  $SD=1.273$ ) and after the assignment ( $M=5.64$ ,  $SD=1.088$ );  $t(38)=-5.71$ ,  $p<0.05$ . These results suggest that eportfolio implementation including students receiving feedback from peers and researchers through formative rubrics enhanced students' confidence levels in articulating teamwork competencies to prospective employers.

The researchers tested the second variable to determine if eportfolios could be used as a tool to facilitate enhanced levels of confidence in written communication competencies. To test this hypothesis, the researchers created an assignment requiring students in the Introduction to Cooperative Education course to consider their confidence utilizing professional written communication in the workplace. Prior to the assignment being administered to the students, the researchers required the students complete a pre-assignment confidence survey evaluating their levels of confidence utilizing written communication in a professional environment. The researchers provided students with a written communication assignment requiring them to consider their written communication competencies. A total of 39 students completed this pre-assignment and post-assignment confidence surveys. A paired-samples t-test was conducted to compare students' confidence levels utilizing written communication in a professional environment before and after their eportfolio assignment. The results of the paired-samples t-test revealed there was a significant difference in students' level of confidence before the assignment ( $M=4.90$ ,  $SD=1.188$ ) and after the assignment ( $M=5.82$ ,  $SD=0.914$ );  $t(38)= -5.860$ ,  $p<0.05$ . These results suggest that eportfolio implementation including students receiving feedback from peers and researchers through formative rubrics enhanced students' confidence levels regarding the variable of written communication competence in a professional environment.

#### RESULTS: FINAL SURVEYS

The researchers conducted a final evaluation of all students participating in the Introduction to Cooperative Education course examined in this study. Final survey data was used to allow students to indicate measurable values on supplemental variables the researchers wanted to evaluate. These variables included the measurement of student time involved in eportfolio development, effort in the eportfolio design, feedback usage, and preparation for future employment. Notable data from final surveys was collected for this study.

An initial component of survey data collected from student participants related to student use of feedback from peers. Students in the course indicated they used peer feedback (beyond the feedback required during in-class activities) as a



means for improving their final eportfolios. Specifically, 67 percent of students enrolled in the course solicited and used peer feedback throughout the development of their course assignments.

The researchers utilized a rubric method throughout the eportfolio section of the course to provide students with formative feedback from peers and professional staff. Rubrics used for the course were adopted from the AAC&U VALUE rubrics due to these rubrics representing the best practice in the process of eportfolio evaluation for the specific competencies of written communication and teamwork. Students were informed that rubric feedback had no influence on their assignment grades. Rubrics were merely used as a tool to provide students with formative feedback as they developed their final eportfolios. Results from the final survey found that 79.5 percent of students indicated that rubric feedback from peers influenced the creation of the final eportfolio for the course. Further, 71.8 percent of students indicated that peer feedback convinced students to change portions of their eportfolio. Additionally, 92.3 percent of students indicated that rubric feedback from researchers influenced the creation of their final eportfolios and 82 percent of students indicated that feedback from researchers convinced students to change portion of their eportfolio.

Another significant finding from final surveys pertained to student preparation for interviews. Specifically, 86.5 percent of students reported that eportfolio assignments helped them prepare for the job interview process. Assignments were designed with the goal of improving student confidence, so this finding seemed reasonable when compared to the pre-test and post-test confidence surveys.

## DISCUSSION

The findings from this study have several noteworthy implications in the realm of eportfolio development in the context of work-integrated learning. First, the results of this study revealed that use of intentionally designed eportfolio assignments can be used as a tool to facilitate heightened levels of student confidence with relation to teamwork and written communication competencies. Specifically, students indicated that eportfolio assignments focused on the development of written communication and teamwork competencies made them feel more confident utilizing these competencies in a professional environment.

These results confirm the hypotheses of the researchers. By confirming that eportfolios can be used as a tool to assist in the facilitation of heightened student confidence levels with select variables, educators can view eportfolios as a legitimately useful tool in the assignment development process. Further, this study goes beyond the notion that eportfolios are merely a repository of information and provides evidence of authentic student benefit.

An additional noteworthy finding pertains to the use of peer feedback. The researchers believe that peer feedback is inherent and positive within an eportfolio model as it provides students with exposure to varying perspectives with the intention of continued improvement. The findings in this study revealed that students organically utilized feedback from their peers throughout the development process of their eportfolios. This feedback was not required, but students utilized their peers as a means for assessing their assignments, determining their eportfolio's aesthetic quality, and structuring their eportfolio format nonetheless. Further, students overwhelmingly indicated they used formative rubric feedback from peers and the researchers to improve their final eportfolio. This finding is further validation that students value feedback from external constituents (e.g., instructors, peers, prospective employers) and that external feedback can influence students' coursework. The researchers believe eportfolios are the ideal platform to use within a feedback cycle due to the public nature of student content and the ease of content access.

## FUTURE IMPLICATIONS

While this study adds to the literature on the use of eportfolios in professional development programs, there are several implications for future developments in eportfolio research in the context of professional development training/work-integrated learning for students. This study was limited in scope due to the nature of examining solely a pre-cooperative education experience through the medium of a professional development course. Areas for further exploration should include the utilization of an eportfolio model during a longitudinal study incorporating a cooperative education or internship program. Since the eportfolio was developed in the first year, there exists the potential for the student to add more experiences (i.e., their co-op experiences) to further enrich the narrative of their identity. Future research should build on the LEAP Report's suggested learning outcomes and examine these outcomes over the course of an entire undergraduate experience. Summative analyses of student competence in essential learning outcomes could reasonably

provide evidence of student development over time. Additionally, how students reflect on those experiences and convey evidence of learning within established learning outcomes presents the potential for future research.

Another significant implication of this study pertains to the need for additional research regarding formative feedback throughout the development of the eportfolio. With the results of this study suggesting that students highly value feedback from external constituents, one could reasonably postulate that several forms of feedback throughout the development of an eportfolio could facilitate higher assignment quality. Moreover, by educators recognizing that students value formative feedback throughout the development cycle of their assignments, one could presume that eportfolios could be an ideal tool to utilize during a course to provide regular feedback to students. ePortfolios have a strong advantage for feedback delivery over more conventional assignment platforms due to their often public nature and ease of accessibility.

By using a medium such as an eportfolio to house student work, students recognize that their content is inherently made accessible for potential scrutiny and interpretation by peers, faculty, and potential employers. As an educator, this finding is clearly noteworthy. Students in this study seemed to have had a consciousness of audience, which facilitated further assignment iterations and potentially higher assignment quality by the conclusion of the term. ePortfolios could be a viable platform to teach students how to convey significant components of their identity to external constituents while filtering out other less significant identify components. Further research should examine the use of eportfolios in connection with student identity expression and filtering.

This study possesses limitations due to the nature of examining only one section of an introductory level professional development course. The results of this study could be enhanced through the implementation of the same aforementioned methods in additional sections of Introduction to Cooperative Education or other comparable professional development courses. Further research should consider expanding the scope of impact within additional courses to assess the reliability of findings beyond the first-year information technology student population.

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# Perspectives of British Columbia Cooperative Education Employers who Hire Students that come to Post-Secondary Institutions from International Pathways: An Examination Using Q Methodology

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## PURPOSE

Increasing numbers of students from international pathways (SFIP) are studying at Canadian post-secondary institutions (CBIE, 2014). Most have aspirations of gaining work experience in Canada, yet most also report meeting significant challenges in doing so. In order to better facilitate these transitions to work, there is a need to understand the hiring practices that impact this group of students (Gribble, 2014).

Cooperative Education (Co-op) is a work-integrated learning strategy that provides a structured method for integrating academic learning with learning experiences in the workplace (Sattle, Wiggers, & Arnold, 2011). The co-op model is embraced by many institutions (nationally and internationally) as an approach that enhances academic learning within an experiential learning framework to better prepare students for productive transitions to the world of work (McRae, 2013, 2015). In late 2014 a sub-set of B.C. institutions from the ACE Research Committee collaborated to explore the growing issue of employment of students schooled predominately outside of Canada. As institutions and co-op programs have had increasing participation from students who come from international pathways (e.g., international students, refugees, and new immigrants), it was determined that a study regarding the perceptions and practices of potential employers was both timely and important in order to better ensure student success and graduate outcomes (Gribble, 2014).

The Association for Co-operative Education for BC & Yukon (ACE) is conducting a research study to explore employers' understandings, beliefs, and perspectives around the hiring of students who come from international pathways (SFIP) in order to better understand the support and services needed to enhance these transition for student with international backgrounds. A team of researchers representing four BC institutions (BCIT, SFU, TRU, and UVic) collaborated in order to answer the research question: What are employer perceptions and practices regarding the hiring of students who come to B.C. post-secondary institution via international educational pathways?

## METHOD

The researchers are using Q methodology, a research approach that allows for the interpretive investigation of subjective individual and group perspectives related to a subject. Q methodology provides a systematic way to study emergent subjectivity and perspectives on a subject and is very different from surveys or questionnaires that impose categories on potential responses. "The power of Q methodology lies in its ability to gain insight into the self-understanding of the

participants in the study” (Madoc-Jones & Gajdamaschko, 2006, p.65). This methodology can assist in obtaining “understandings concerning the interpretative subjectivity of participants that is not possible through traditional positivistic research methodology” (Madoc-Jones & Gajdamaschko, 2006, p.65). The sorting process and emergent factors should provide researchers with the opportunity to gain new insights into this topic.

### CONCOURSE

At the heart of Q methodology is the development of the concourse which is “the array of ideas, attitudes, feelings, values and perceptions” (Madoc-Jones & Gajdamaschko, 2006, p.65) about the topic in question. The researchers engaged in an extensive literature and media review and participated in a group brainstorming exercise in order to generate the concourse and ensure it was inclusive of the range of opinions and statements that could be found about the subject. From the concourse, the researchers derived statements that represented the breath of perspectives known as the Q set, which contains the statements which study participants will rank-order when they engage in the Q sort process.

To develop the concourse in this study all research collaborators met face-to-face to document the discourse on this topic. The research collaborators analyzed the discourse and shaped the discourse into potential concourse statements. Two research collaborators revisited all the statements, reduced redundancy in the statements, and categorized them via topic. All research collaborators undertook literature reviews to strengthen and represent the theories related to the research question. The literature review focused on the following areas, and the complete list of references for the literature review is in Appendix A:

- Student perspectives
- Business perspectives
  - Chamber of Commerce’s perspectives
- Public perspectives
- Government policy
  - BC Jobs Plan/Labor Market
- Media
- NGO communications including National Workforce CBIE/Policy/Changing Landscapes (e.g., Express Entry)

After each collaborator completed their respective literature review, the team met to discuss the findings. The research collaborators agreed on a set of 38 statements related to the question. The statements were reviewed using the following criteria:

- Representative of discourse
- Uses language of corporation/organization
- Uses language of students from international pathways
- Has a consistent voice
- Balances positively and negatively worded statements
- Written to elicit reaction
- Written with clarity

Please refer to Appendix B for the Concourse Statements.

### STUDY PARTICIPANTS

The participants in the study are employers from British Columbia who are partners in the cooperative education program across multiple institutions. Each research collaborator identified participants from their respective employer stakeholders that are representative of industries and organization that hire co-op students from their institutions. Once more information about the participant demographics is collected, that information will be included in this section.

### PROCEDURE

The procedures and conditions of instruction are crucial for the validity of this study as reliability for Q rests in its replicability. This means that the instructions should generate similar viewpoints on the subject when administered to

different study participants. This is crucial as the study is distributed across institutions and delivered by more than one researcher. As such, principles and conditions of instruction were defined and each research collaborator will employ these when carrying out the study. A pilot of the study was carried out with ACE practitioners and employers at a provincial conference in 2015 and feedback from these stakeholders on the study delivery was integrated into refining the conditions of instruction.

The conditions of instruction involve the study participants completing the Q sort activity wherein they sort the concourse statements using their employer lens as someone who hires students from international pathways. As the participants force-sort the concourse statements, it is important that they are not rating agreement or disagreement with the individual statements; but rather how they think about ideas in relation to one another. The Q sorting processes requires participants to place the statements on an agree/disagree scale (from -4 to +4). Participants are allowed to shift the statements once they have been placed on the scale until they feel they have completed the study. The distribution of statements into each element of the scale will represent a normal bell curve. The 'forced' element of the Q sort refers to the fact that there are a maximum numbers of statements allowed in each element of the scale (-4 to +4) so the participant is forced to wrestle with which statement they agree with or disagree with more than others.

### INTERPRETATION

The Q sorts undergo interpretive factor analysis, a statistical method that describes variability and correlated variability, to impose functional categories (not logical divisions) on the data. The factors that resulting from the analysis signify the "clusters of subjectivity" that are operant, meaning they are functional and communicate the subjectivity. Only when the subjectivity is expressed operantly does it allow for the systematic analysis and description of the population of viewpoints. Factors that arise from individual subjectivities allow for the comparison of similar and dissimilar factor loadings (or distributions) of the group's subjectivity. The "results of a Q methodological study are the distinct subjectivities about a topic that are operant, not the percentage of the sample (or the general population) that adheres to them" (Exel, & Graaf, 2005, p.3). Through this method, the researchers are able to correlate responses allowing for the study participants' perceptions to create the resultant factors. In the case of our Q, we are looking not only for evidence of strong perspectives from the statements presented but the very real probability of new perspectives emerging from the factor loading or analysis. This method supports the research purpose as it doesn't define "independent variables" that are tested on participants but rather analyses the participants' perceptions "from the point of view of the person who did the rating, because theirs are the actual operations at issue" (Madoc-Jones & Gajdamaschko, 2006, p.65). The researchers will interpret the findings and explain the discourse around the factors. Follow-up interviews may also be conducted 'with the participants to elaborate their points of view. Q does not aim to describe a population of people, hence large numbers of participants and random samples are not required, rather, deeper and new understandings are the desired outcomes. Furthermore, generalizability is not a goal of this methodology. Although the findings and conclusions are limited to the conditions of the study, Q methodology does suggest that only a finite number of viewpoints exist on a subject.

### RESULTS

The conclusions are still preliminary at this time of submission as the data collection is ongoing. It is anticipated that the results will be analyzed and interpreted prior to the conference proceedings. The conclusions intend to contribute towards an understanding of the perceptions of employers who hire students from international pathways. Researchers also expect to provide recommendations regarding further practice and research that will facilitate greater hiring of SFIP in the future. This is significant at a time when international student mobility is growing at rapid rates, and where educational experiences increasingly include work-integrated learning programs such as co-op. Further, it is expected that this study will assist post-secondary institutions to better understand the challenges that employers face and opportunities they perceive when hiring SFIPs. This in turn will allow cooperative education programs to attune their programs to employer practices and thereby provide enhanced services to SFIP in co-op education programs, for example, the preparation of students from international pathways for work in Canada as well as institutional programs and services in support of these students.

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## APPENDIX A

### STUDENT PERSPECTIVE

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- Insight for international students: Taking advantage of work entitlements while studying in Canada  
<http://talentegg.ca/incubator/2010/08/13/insight-for-international-students-taking-advantage-of-work-entitlements-while-studying-in-canada/>
- Why Canada should recruit thousands more international students every year <http://www.canadianbusiness.com/economy/canada-should-court-more-international-students/>

### BUSINESS PERSPECTIVE

- Improving the Assessment of International Students' Contribution to Canadian Society, In collaboration with World Education Services  
<http://p2pcanada.ca/wp-content/uploads/2014/02/International-Students-Contribution-to-Canadian-Society.pdf>
- From the World to the Workforce: Hiring and Recruitment Perceptions of Engineering Employers and Internationally Trained Engineers in Ontario <http://www.ospe.on.ca/news/191916/New-OSPE-report-From-the-World-to-the-Workforce-.htm>
- Diversity at Work. <http://hrcouncil.ca/hr-toolkit/diversity-recruitment.cfm>
- Employers' Replies to Racial Names. <http://www.nber.org/digest/sep03/w9873.html>
- Temporary foreign workers have better work ethic, some employers believe. <http://www.cbc.ca/news/temporary-foreign-workers-have-better-work-ethic-some-employers-believe-1.2600864>
- Hiring International Students: A Success Story. <https://www.go2hr.ca/articles/hiring-international-students-success-story>
- New regulations in place for Hiring International Students.  
[http://www.canadianimmigration.net/index.php?option=com\\_content&Itemid=310&catid=50&id=603&lang=en&view=article](http://www.canadianimmigration.net/index.php?option=com_content&Itemid=310&catid=50&id=603&lang=en&view=article)
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## PUBLIC

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How the World Views Temporary Employment and Interim Management [http://www.michaelpage.com.tr/productsApp\\_tr/GlobalTempSurvey2014/report/PP\\_CEA\\_REPORT\\_HOW%20THE%20WORLD%20VI EWS%20TEMPORARY%20EMPLOYMENT\\_EN.pdf](http://www.michaelpage.com.tr/productsApp_tr/GlobalTempSurvey2014/report/PP_CEA_REPORT_HOW%20THE%20WORLD%20VI EWS%20TEMPORARY%20EMPLOYMENT_EN.pdf)  
Everything You Need To Know About Temporary Foreign Workers. <http://www.theglobeandmail.com/news/politics/temporary-foreign-workers-everything-you-need-to-know/article18363279/>

## GOVERNMENT

International Education, Future Citizens, and the Labour Market: Challenges and Prospect for Ontario.  
<http://amiramasri.wix.com/international-ed>  
Hire Foreign Workers. <http://www.cic.gc.ca/english/hire/worker.asp>

## MEDIA

Media – The Tyee BC's Push for More Foreign Students Full of Risks Say Critics. <http://thetyee.ca/News/2012/09/07/BC-Foreign-Students/>  
Paid to learn- globe & mail. <http://www.theglobeandmail.com/report-on-business/economy/how-a-group-of-canadian-manufacturers-are-investing-in-young-workers/article21606043/>  
Who hires temporary foreign workers? You'd be surprised. <http://globalnews.ca/news/474208/who-hires-temporary-foreign-workers-you-d-be-surprised/>  
First Year Experience Critical for International Students. [http://www.huffingtonpost.ca/susan-deane/canada-international-students\\_b\\_4767615.html](http://www.huffingtonpost.ca/susan-deane/canada-international-students_b_4767615.html)

## CHAMBER OF COMMERCE

Temporary Foreign Worker Information Sessions. <http://www.whistlerchamber.com/Employment-Resources/Hiring-Foreign-Workers.html>  
BC Chambers of Commerce. <http://www.bcchamber.org/>

## REVIEW CHAMBER OF COMMERCE SITE: TRI-CITIES, VICTORIA, ETC.

### *BC Jobs Plan/Labor Market*

BC Job Plan. <http://engage.gov.bc.ca/bcjobsplan/>  
BC Labour Market. <https://www.workbc.ca/Statistics/Labour-Market/Pages/Labour-Market.aspx>  
Welcome BC: <http://www.welcomebc.ca/home.aspx>  
International Education: <http://www.aved.gov.bc.ca/internationaleducation/welcome.htm>  
BCHeadSet: <http://www.bcheadset.ca>  
BC Labour Market Programs. <https://www.workbc.ca/Job-Seekers/Build-Your-Career/Planning-Your-Career/Starting-and-Planning-Your-Career/BC-Employment-Programs.aspx>

### *National Workforce CBIE/Policy*

Hire international students. <http://www.cic.gc.ca/english/hire/student.asp> (Government)  
Policy. <http://www.cea-ace.ca/faq>  
International Education Strategy – Gov't/BC Jobs Plan.  
[http://www.aved.gov.bc.ca/internationaleducation/forms/InternationalEducationStrategy\\_WEB.PDF](http://www.aved.gov.bc.ca/internationaleducation/forms/InternationalEducationStrategy_WEB.PDF)  
Canada Visa <http://www.canadavisa.com/>  
Immigrant Employment Council of BC. <http://www.iecbc.ca/global-talent/labour-market-information-research>  
International Graduates Of Canadian Institutions And The National Workforce. CBIE [http://www.cbie-bcei.ca/wp-content/uploads/2011/10/20071030\\_northernlights\\_e.pdf](http://www.cbie-bcei.ca/wp-content/uploads/2011/10/20071030_northernlights_e.pdf)  
Express Entry <http://canadianimmigrant.ca/news-and-views/york-university-study-suggests-employers-not-ready-for-express-entry-system>

## APPENDIX B

### **Concourse Statements**

#### **(SFIP- students from international pathways)**

#### **Labor Market**

1. International students take jobs away from Canadian students
2. SFIP will not be long term employees as they return to their home countries when their visas expire
3. More SFIP should be hired so that they immigrate and fill long-term labor market needs

### **Education**

4. SFIP bring additional knowledge to our workplace

### **Hiring Process**

5. I don't hire SFIP as they don't want to live and stay in a small town
6. SFIP have difficulty transitioning to the workplace because of cultural differences and require a lot of resources (e.g., staffing and training)
7. I'm hesitant to hire an SFIP because of the complex immigration requirements
8. I prefer to offer opportunities to Canadian students to give them a hiring advantage
9. When making a hiring decision, I prefer relevant Canadian work experience
10. I look for relevant work experience and credentials whether or not they come from Canada or elsewhere
11. Conducting reference checks outside of Canada can be challenging and it negatively impacts our hiring process
12. An applicants' name can often provide a helpful indication as to whether they will fit in with our workplace
13. I am aware of and use immigrant employment services to facilitate the hiring process of SFIP
14. I don't worry about the student's nationality. I hire from schools that have a good reputation for our workplace
15. I am more likely to hire a student from our country of origin as I understand them, and what they will need to succeed
16. Fluency in more than one language is an asset to our workplace for the purposes of international and/or local communication
17. It's difficult for me to hire international students because I don't know how to interpret and evaluate their credentials and work experience from other countries

### **Language Skills**

18. I need employees who are native speakers of English to ensure professional communication
19. Language barriers can create problems in our workplace
20. Students from other cultures don't understand/accept feedback when I give it to them
21. I need employees with strong written English skills to ensure professional communication

### **Workplace Culture**

22. SFIP don't naturally fit in to our workplace culture
23. Male students from some cultural backgrounds have trouble respecting women in authority in the workplace
24. SFIP don't understand the norms of a Canadian workplace
25. SFIP have religious needs that are too demanding for our organization
26. Hiring employees with different cultural backgrounds enhances our workplace
27. SFIP are not open to adjust their attitudes and behaviours to fit our workplace culture

### **Capabilities**

28. SFIP are eager and ready to please because they want to stay in Canada
29. SFIP work hard and are more productive than Canadian students
30. SFIP react unpredictably to pressure and are harder to manage
31. SFIP are well prepared for a dynamic and diverse workplace such as ours
32. I like to hire SFIP because they are the "top students" from their home countries
33. SFIP come from privilege and have a sense of entitlement
34. Canadian students come from privilege and have a sense of entitlement

### **Workplace Reputation and Effectiveness**

35. SFIP help our organization to meet our diversity goals
36. Our customers want to be served by people like themselves
37. I look for employees who want to stay in Canada and build their careers in our organization
38. SFIP are more cost effective for our organization



# Integrating Cross Cultural Sensitivity in the Workplace: Developing Globally Proficient Professionals

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## ABSTRACT

Cross cultural sensitivity is an increasingly desired and indispensable attribute of the 21<sup>st</sup> century where globalization and labor market mobility demand interactions with individuals from diverse backgrounds and cultures. Cross cultural sensitivity [CCS] is defined in this research as the ability to apply appropriate knowledge and skills to understand the cultural beliefs, attitudes, values and behaviors of oneself and those of other cultures. The objective of this paper is to develop and expand sensitivity within the workforce to cultural diversity using a new work skills framework based on cross cultural sensitivity, preparing the next generation of global professionals. The approach is grounded in literature around the concept of cultural intelligence [CQ] and cross cultural understanding to identify cognitive, metacognitive, motivational and behavioural attributes (Earley & Ang, 2003) further contributing to cultural sensitivity in the workforce. These attributes are incorporated into the proposed cross culturally sensitive work skills framework with reference to six generic work skills [initiative, technology, lifelong learning, self-management, problem solving and communication] identified previously in a well-established and validated teaching and learning framework, the Work Skills Development Framework (Bandaranaike & Willison, 2009, 2015). The proposed innovative theoretical framework based on cross cultural sensitivity, while enabling attitudinal and behavioural changes to ameliorate cultural disparities at all levels in the workplace, is primarily intended for use as a teaching and learning assessment tool with Cooperative Work-Integrated Education (CWIE) students. This framework will significantly improve and help develop globally proficient professionals of the future.

*Keywords: cultural sensitivity, cultural intelligence, work skills, global professionals, CWIE*

## INTRODUCTION

Contemporary globalization, demographic shifts, political unrest and climate change are contributing to international labor mobility and ensuing cultural diversity in the workforce. Around the world of 232 million estimated international migrants, 64.8% (150.3 million) are migrant workers with 74.7% from countries classified as 'high income'. It is also noted that migrant women have higher labor force participation than non-migrant women (International Labour Organisation, 2014, 2015) indicative of possibly higher gender discrepancies for migrant women.

Varying cultural attitudes, beliefs, perception and behaviors within the workplace can cause misunderstandings that detract from working towards a common goal (Ang et al., 2006; Earley & Mosakoky, 2004; Earley & Gibson, 2002; Tsui & Gutek, 1999). Yet, there are competitive advantages from managing cultural diversity (Cox & Blake, 1991) and significant progress has been made in global leadership from cross cultural training (Ng et al., 2012; Kim & Van Dyne, 2012; Deng & Gibson, 2008). Bandura (2002, p.270) refers to 'cultural pluralization of societies' and the interaction of national and global forces as shaping the nature of cultural life. The research to date focuses mainly on cultural knowledge (Hofstede, 2001; Keung & Rockinson-Szapkiw, 2013), economic analysis (Doyle, 2010), and personal traits such as performance predictors (Keung & Rockinson-Szapkiw, 2013), or emotional intelligence as a predictor of cultural adjustment (Gabel et.al, 2005) and lacks focus on awareness and adaptation to cultural sensitivity within the workplace.

The primary objective of this paper is therefore to increase the awareness of cultural diversity in the workplace through the utility of a work skills oriented framework based on cross cultural sensitivity to prepare the next generation of global professionals. The approach is grounded on the concept of cultural intelligence [CQ] and cross cultural understandings in the workforce to identify cognitive, metacognitive, motivational and behavioural attributes (Earley & Ang, 2003) contributing to cross cultural sensitivity in the workforce. These attributes are adapted and incorporated into a new

framework sensitive to cultural diversity in the workplace to demonstrate attitudinal and behavioural changes that could take place in a culturally diverse work environment. In this framework cross cultural sensitivity in the workforce, is discussed with reference to six generic work skills –Initiative & Motivation, Technology & Resource Use, Learning & Reflecting, Management & Planning, Problem Solving & Critical Thinking, and Communication & Team Work (after Bandaranaike & Willison, 2009).

In reviewing existing literature, theories and models on cultural diversity and cultural intelligence [CQ] it is possible to elucidate the extent that current cross cultural training addresses issues of cultural diversity. In this context, an innovative and generic framework, the CCS framework, is proposed to address cross cultural training in the workplace.

## CULTURAL DIVERSITY

Researchers consider diversity when there is a certain attribute that can be used to distinguish people from other people (Williams, O'Reilly, 1998). Van Knippenberg and Schippers (2007, p. 519) define cultural diversity as a typical feature of a social grouping that reflects the degree to which there are objective or subjective differences between people within the group. Most cultural diversity research focus on the diversity of easily visible demographic characteristics such as age, gender, religion and ethnicity, which are apparent with minimal exposure to an individual (Pelled, 1996; Tsui, Egan, & O'Reilly, 1992). Therefore, cultural diversity often typically refers to demographic differences in a group of two or more people (McGrath et.al., 1995) which may enhance or detract from workplace functioning (Ely & Thomas, 2001, p.231). Often those of similar cultural identity groups will share certain norms, values and behaviors which affect workplace culture (Cox 1993). Diversity in ethnicity, gender, religion, language, social class, nationality etc. is associated with varying cultural beliefs, attitudes, values and behaviors in the workplace which may lead to actions, gestures and speech patterns that could be interpreted differently.

Empirical research on cultural diversity and its role in the workplace is limited (Milliken and Martins, 1996; Pelled, 1996). Early studies on cultural diversity focused on working conditions (Ely & Thomas, 2001) and more generally on specific cultural attributes like: race and gender (Cox et al., 1991; Cox 1993; Jackson & Ruderman, 1995; Williams, & O'Reilly, 1998) organizational group memberships (Bantel & Jackson, 1989; Ancona & Caldwell, 1992), attitudes, values, and preferences (Bochner & Hesketh, 1994; Hoffman, 1959; Meglino et al., 1989).

Cultural understanding is both about having an understanding of one's own culture, and being able to understand people with another cultural base. Earley and Mosakowsky (2004, p.142) state "people who are somewhat detached from their own culture can more easily adopt the mores and even the body language of an unfamiliar host". Often the host country takes culture for granted and fails to recognize the cultural differences in other workers (Plum et al., 2008). Therefore it is important that cultural reciprocity be practiced for mutual understanding of one's own culture and the ability to understand people from another culture.

Globalization has increased the awareness of workforce diversity and yielded a range of empirical studies on managing cultural diversity from a global context (Barak, 2014) including: offshore outsourcing (Ang & Inkpen, 2008), global leadership (Deng & Gibson, 2008), international business (Early, 2002; Earley & Ang, 2003), multinational firms (Gomez-Meija & Palich, 1997) to more localised studies in nursing practice (Bednarz et.al., 2010), real estate sales (Chen et al., 2012), business environments (Zakaria, 2000), expatriate management (Berry & Ward, 2006) and many more. These studies however focus mainly on the more perceptible, surface level cultural diversity and the effect on organizational performance, rather than the underlying mechanism to implement change within the workforce

## CULTURAL INTELLIGENCE (CQ)

Cultural Intelligence (CQ) is knowledge and skills developed in a specific cross cultural context (Thomas et al., 2008) and indispensable to managing the interconnectedness of today's world (Brislin et al., 2006). Thomas et al., (2008) define cultural intelligence as "a system of interacting knowledge and skills, linked by cultural metacognition that allows people to adapt to, select, and shape the cultural aspects of their environment." Therefore culturally intelligent individuals are those who recognize behaviors that are influenced by culture (Tan, 2004).

Earley and Ang (2003, p.59) posit cultural intelligence (CQ) as the ability to interact successfully with people who are culturally different. Within a cross-cultural setting, they have introduced a four stage model of cultural intelligence.

1. Metacognitive CQ - conscious cultural awareness during cross cultural interactions and learning process generated through those interactions.
2. Cognitive CQ - the learning of norms, practices, and conventions in different cultures.
3. Motivational CQ - the ability to direct attention, energy and motivation to learn and function in a new culture setting.
4. Behavioural CQ - the ability to express appropriate verbal and nonverbal actions while interacting with individuals of culturally diverse backgrounds.

While Earley and Ang's CQ model provides a useful guide to appraise and adjust to cultural diversity, it does not extend this knowledge to direct practical training outcomes as proposed in the CCS framework in this paper. With rapid advances in globalization and labor migration, the workforce is subject to domestic restructuring (Zakaria, 2000) and greater face to face contact with people from different backgrounds (Brislin, 1981). This awareness and adjustment to a culturally diverse workforce, makes cross cultural sensitivity and competency increasingly important (Collier, 1989), and effective communication with other cultures imperative (Schneider, 1993).

## THE CROSS-CULTURAL SENSITIVITY FRAMEWORK

### *Cross-Cultural Sensitivity (CCS)*

Cross cultural sensitivity (CCS) is the ability to apply appropriate knowledge and skills to understand the cultural beliefs, attitudes, values and behaviors of oneself and those of other cultures.

In the context of this research paper the term 'cross-cultural' [in preference to 'inter-cultural'] deals with adjusting to cultural beliefs, values, attitudes and behaviors of individuals and groups rather than mere differences between two or more cultures (inter-cultural). Kawar (2012, p.105) confirms the difference in the use of terminology depends on the actual problem which is being investigated. Research on cross cultural adjustments outline stages of cultural transformation (Bennett, 1986; St Claire, 1999; Hofstede, 2001; Zakaria, 2000) but not the process or approach to practice the cultural transformation.

Integrating the results of a thematic content analysis of relevant existing literature, the Cross Cultural Sensitivity (CCS) framework [Table 1] provides a systematic innovative transformative learning approach (Mezirow, 1991) to increase the awareness and understanding of cultural sensitivity in the workplace. The CCS work skill facets are adapted from a well-established, validated work skills framework, the Work Skills Development Framework [WSD] (Bandaranaike & Willison, 2009), which has been tested with multidisciplinary Work-Integrated Learning [WIL] tertiary students in Australia (Bandaranaike & Willison, 2015). Culturally adjusted skill facets (CCS) are identified in Table 1 Column 1. The quintessence of each of these CCS skill facets is captured in Column 2. The proposed CCS workplace adaptations for each of the six facets is given in Column 3, while Column 4 is indicative of the direct supporting research.

CCS is considered to be a personal attribute about managing oneself and the needs of others in a cross cultural environment and will vary with each individual. Change follows a progressive sequence, generating reflection at each stage as illustrated in the Levels of Autonomy in the CCS Cycle of Change (Figure 1). Each stage is assigned a 'Level' or phase to correspond with the 'Levels of Autonomy' in the original WSD (Bandaranaike & Willison, 2009), and assesses the progress in the assimilation of cultural diversity.

TABLE 1: A framework for cross cultural sensitivity (CCS) in the workplace

CCSSKILL FACET <sup>1</sup> [cultural context]	CCS	Workplace Adaptation	Supporting Research
CCS1 <b>Initiative &amp; Motivation</b> Goal directed & motivated to embark & clarify cultural diversity.	Self-Efficacy	Shows motivation and capacity to direct attention and energy towards recognizing and learning cultural differences to work towards a common goal.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Motivational CQ – energy and self-confidence to pursue the required cultural understanding and planning... ‘desire &amp; self-efficacy.’</li> <li>• <i>Hofstede (2001)</i> – long term goal orientation.</li> <li>• <i>Zakaria (2000)</i> – The willingness to overcome ‘Culture Shock’.</li> <li>• <i>Kim &amp; Omiza (2005)</i> - high levels of self-efficacy predicts successful goal attainment.</li> </ul>
CCS2 <b>Technology &amp; Resource Use</b> Finds & generates data/knowledge using culturally appropriate skills & technology.	Empathy	Expresses respect, positive regard and consciousness of other cultures in the use of resources and technology, including the ability to intuitively understand what others think and feel when new resources are introduced.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Behavioural CQ – ‘culturally appropriate behavior in using resources’.</li> <li>• <i>Hofstede (2001)</i> – ‘Indulgence vs Self-restraint’ ... care in introducing something new.</li> </ul>
CCS3 <b>Learning &amp; Reflecting</b> Critically evaluates cultural diversity reflecting on lifelong learning skills in a cross cultural environment.	Tolerance	Critically evaluates ambiguity and clarity [in cultural diversity] to demonstrate a culture specific understanding and acceptance of cross cultural working environments.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Cognitive CQ – learning of norms, practices, conventions in different cultures.</li> <li>• <i>Hofstede (2001)</i> – Uncertainty avoidance. Need for clearly defined rules of behavior.</li> <li>• <i>Zakaria (2000)</i> – Tolerance for ambiguity.</li> </ul>
CCS4 <b>Management &amp; Planning</b> Organizes & manages self while being perceptive to respecting & managing the needs of others.	Respect	Displays a shared understanding of cultural values through the use of appropriate language, behaviors and actions to articulate goals, visions and innovative strategies in managing cultural groups.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Metacognitive CQ - strategies to acquire and develop coping mechanisms.</li> <li>• <i>Hofstede (2001)</i> – participative management style (Power Distance).</li> <li>• <i>Connel &amp; Wood (2005)</i> Managerial Masculinity</li> <li>• <i>Sercu (2005)</i>. Ability to evaluate other people’s views, Leadership</li> <li>• <i>Triands (2006)</i> – Overcoming Ethnocentrism</li> </ul>
CCS5 <b>Problem Solving &amp; Critical Thinking</b> Synthesizes and analyses data/knowledge, to initiate change and extrapolate cultural outcomes	Orientation	Uses appropriate cultural knowledge to initiate change and extrapolate outcomes and recognizes the extent to which knowledge is individual in nature.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Metacognitive CQ – cultural consciousness &amp; awareness promotes active critical thinking and evaluates &amp; revises knowledge about difficult cultures.</li> <li>• <i>Endicott et al. (2003)</i> - Cognitive Flexibility - Exposure to cultural diversity increases cognitive flexibility as well as your cross cultural competence in extrapolating outcome.</li> <li>• <i>Hofstede (2001)</i> – Individualism vs Collectivism in critical thinking.</li> </ul>
CCS6 <b>Communication &amp; Team Work</b> Demonstrates culturally acceptable professional conduct and communicates with sensitivity to interpersonal and cross cultural requirements.	Mindfulness	Responds in a non-evaluative and non-judgmental way using verbal and nonverbal actions and behaviors & interacts mindfully with people from other cultures.	<ul style="list-style-type: none"> <li>• <i>Earley &amp; Ang (2003)</i> – Behavioural CQ – Adapts culturally appropriate behavior with Mindfulness.</li> <li>• <i>Thomas (2006)</i> - Mindfulness in enhanced attention to, or monitoring of, own thoughts, motives, emotions and the external environment to adapt to the other.</li> <li>• <i>Thomas &amp; Inkson (2000)</i>- Behavior adjustment with Mindfulness</li> </ul>

<sup>1</sup> This Table is based on the original Work Skills Development Framework (Bandaranaike & Willison, 2009).

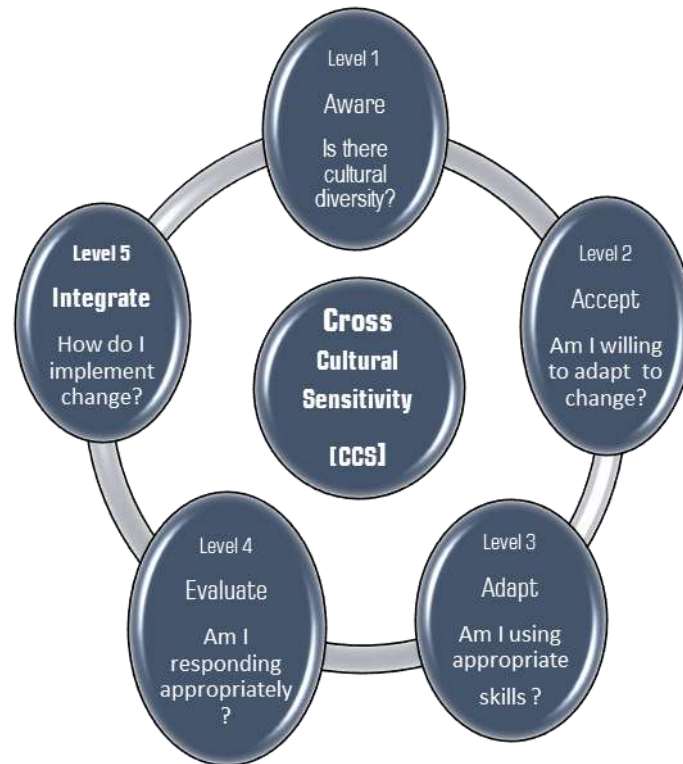


FIGURE 1: Cross Cultural Sensitivity Cycle of Change & Levels of Autonomy, where:

- Aware - is there cultural diversity? Am I ethnocentric? Understand cultural relativism? Aware of others' verbal & nonverbal reactions?
- Accept – do I appreciate others' cultures? Comprehend others' symbolic interactions? Respect & accept differences in beliefs, values, and behaviors? Mindful of other cultures?
- Adapt – am I empathetic? Do I adjust personal behaviors? Do I practice ethno relativism? Have I cognitive & behavioural flexibility?
- Evaluate - do I know what to do and what not to do? Keep own culture and absorb and integrate aspects of others' values & beliefs? Integrate culturally appropriate practices/lifestyles?
- Integrate- how do I adjust my actions to others needs? Project lifelong learning goals? Communicate effectively without offending others? Assess performance and modify my behavior?

Initially, an individual needs to experience, become sensitive or 'Aware' (Level 1) to workplace cultural diversity. At this foundation level, Motivational CQ provides 'the energy and self-confidence to pursue the required cultural understanding' (Earley & Ang, 2003). Level 1 (Aware), is used below as an exemplar and applied to each of the 6 CCS skill facets.

- CCS 1 [*Initiative & Motivation*] – Awareness of one's motivation and capacity to direct attention and energy towards recognizing and learning cultural differences. These attributes are acknowledged in other research findings such as, Earley and Ang's (2003) Motivational CQ, Hofstede's goal orientation (2001), Zakaria's 'Culture Shock', (2000), and Kim and Omiza's Goal attainment (2005) [see Table 1, Column 4].
- CCS 2 [*Technology & Resource Use*] – Awareness [mindful] of other cultures in the use of technology and resources as for example between indigenous land owners and mining leases in Australia. Supporting research from Earley and Ang (2003) Behavioural CQ – refers to 'culturally appropriate behavior in using resources' and, Hofstede (2001) – 'care in introducing something new'.
- CCS 3 [*Learning & Reflecting*] – Awareness of cultural ambiguity and having a clear understanding of cultural diversity. In support Earley & Ang (2003) refer to awareness of norms, practices, conventions in different cultures, Hofstede (2001) to awareness in rules of behavior, and Zakaria (2000) to ambiguity.

- CCS 4 [*Management & Planning*] – Awareness of cultural values to articulate appropriate goals, visions and strategies. Supporting this facet, Earley and Ang (2003) refer to ‘strategies to acquire and develop coping mechanisms’; Hofstede (2001) speaks of ‘power distance’ awareness and Connel and Wood (2005) of ‘managerial masculinity’, and Triand (2006) to awareness of ‘ethnocentrism’.
- CCS 5 [*Problem Solving & Critical Thinking*] - Awareness in using appropriate cultural knowledge to initiate change and extrapolate outcomes. Earley and Ang (2003) discuss awareness in promoting active critical thinking, and Hofstede (2001) in individualism vs collectivism.
- CCS 6 [*Communication & Teamwork*] – Awareness in communication using non-evaluative and non-judgmental verbal and nonverbal actions and behaviors. Earley and Ang (2003) refer to mindfulness of culturally appropriate behavior in communicating with other cultures, and Thomas (2006) to mindfulness of own thoughts, motives, and emotions.

Further to incorporating aspects of Earley and Ang’s four stage model of cultural intelligence – Motivational, Cognitive, Metacognitive and Behavioral Intelligence (Van Dyne et al., 2008), this research specifically applies the CCS framework to a work skills and employability relevant context to improve CWIE students’ cross cultural understanding and also can be applied more broadly to organizational performance and efficiency.

Achieving cultural competence takes time. In the CCS cycle an individual could go through levels 1-4 comprehending the non-verbal communication of a culturally diverse person. Then at level 5 [Integrative stage] finds there are difficulties in understanding this same individual’s attitude to work ethics. This then means going back to level 1 and processing the cycle again on the latter attribute [attitude to work] and so on until a complete understanding of all aspects of cultural diversity are comprehended. Therefore CCS is a dynamic and active cycle that can be adapted to any work place.

The CCS cycle in this paper therefore, is more realistic than Bennet’s static model (1986) in that the latter identifies only distinct types of experiences [denial, defense, minimization, acceptance, adaptation] across a continuum from ethnocentric to ethnorelative. Cultural sensitivity on the other hand is an ongoing, iterative process, and in the context of changing labor demographics cultural diversity can be viewed within that context using the CCS framework.

As mentioned previously, cross cultural sensitivity (CCS) is the ability to apply knowledge and skills to understand cross cultural beliefs, attitudes, values, and behaviors. However, understanding the dynamics of contemporary culture change and shared patterns of behavior takes time. The introduction of CCS in the workplace is proposed through a familiar medium - CCS work skills facets (Table 1). While the Work Skills Development framework (Bandaranaike & Willison, 2015) was successful in its focus on cognitive and affective work skills, the CCS (Table 1) on the other hand applies culturally sensitive work skills to make an individual more aware of addressing cultural diversity in the workplace.

## DISCUSSION

Culturally sensitive work skills are adopted to choose the right mix of verbal and non-verbal actions and behaviors to achieve a mutually satisfying work environment for all. Zakaria (2000) believes these skills can enhance both their affective and behavioural responses to provide better psychological adjustment (p.504-505). This is supported by a comprehensive literature review by Black and Mendenhall (1990) who found strong evidence for a positive relationship between cross-cultural training and adjustment to cultural diversity.

Some of the more specific implications of this study are:

- The CCS Framework can be used as a teaching & assessment tool with CWIE students as was the case with the WSD (Bandaranaike & Willison, 2015).
- It has potential to facilitate overall better understanding of inter-cultural values, attitudes, beliefs and behaviors and promote cultural competence in the workplace.
- Contributes to positive work environment through reflection on CCS work skill facets.
- Develops globally proficient professionals with lifelong learning skills.

- Reduces stress and disorientation within the organization and externally.
- The framework can be used by supervisors/employers to monitor progress of students [CWIE]/employees in the workplace.

#### LIMITATIONS

Although based on an extensive review of relevant existing literature, the proposed Cross Cultural Sensitivity [CCS] framework is a conceptual framework which has not yet been empirically tested. While it provides the conduit to accessing cultural sensitivity in the workplace, there is a need to use reflective practice together with the framework, as in the foundation framework, the WSD (Bandaranaike & Willison, 2015). In the context of supervising/mentoring CWIE students, there will be the need for culturally sensitive supervision and the familiarity of the mentors themselves with the CCS framework.

There is a tendency to seek cultural explanations for all behaviors and thereby miss potential explanatory variables like personality characteristics of the individual, or situational factors such as political trauma which may modify attitudes, values and behavior. These attributes need to be noted and adjusted to, in applying the CCS framework.

#### CONCLUSION

This study contributes to existing research on cross cultural sensitivity and integration in the workforce, and has particular value in its application through work skills enabling individuals to reflect on each work skill in terms of cross cultural sensitivity and work integration. The structured format has value in teaching and learning of all CWIE students and is also applicable to educating employees and employers on the cross cultural sensitivity cycle of change. It has contributed to the literature on cross cultural training, particularly in the work environment.

Demographic changes including rapid growth of refugees and migrants in search of jobs anticipated over the next decade magnify the importance of addressing cultural disparities. Whilst contemporary globalization exposes the world's population to more intercultural interaction and cultural diversity, understanding these issues will take time. This innovative approach to managing cultural diversity in the workforce is comprehensive, non-obtrusive and can be understood easily. Sensitivity to cultural diversity and the awareness and willingness to change is a key factor in developing global professionals.

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# The Complexity of Information Management for the Work-Integrated Learning Process

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## ABSTRACT

Information management for work-integrated learning is a critical process which impacts on the effectiveness of the work-integrated learning process to address the triad partners' expectations. Work-integrated learning is critical to the Higher Education Institutions obligation to address employment expectations of students and provision of well-trained individuals for the work place. Management of information has various core areas which require multiple interventions at different levels of management. The core areas of information management for work-integrated learning is personal information management and organizational information management and form part of the work-integrated learning process on an academic and administration capacity level. By distinguishing these two main levels in the information management for work-integrated learning process lessens the complexity of the triad partnership namely; 1) the Higher Education Institution lecturer and the Higher Education Institution administrator/work-integrated learning coordinator, 2) the industry liaison and the industry mentor, and 3) the student and the student administrator/work-integrated learning opportunity. The complexity of the information management for the work-integrated learning process was done at a Higher Education Institution in South-Africa. In this article it is highlighted that without a well-developed and researched information management for the work-integrated learning process, the complexity of work-integrated learning information and processes and the lack of a strategy for the management of information will compromise the efficiency of the work-integrated learning program.

*Keywords: Information Management, work-integrated learning, Higher Education Institutions, complexity of work-integrated learning*

## INTRODUCTION

Information Management (IM) is critical to ensure optimal use of information in any organization and seeing that work-integrated learning (WIL) is an information intensive process, the management of the information would be critical. WIL offers opportunities for students to learn through experience and relies on cooperation between different role and responsibilities of partners in the WIL process namely the 1) Higher Education Institution (HEI) lecturer and the HEI administrator/WIL coordinator, 2) the industry mentor and industry, and 3) the student and the student administrator/WIL opportunity, hereafter referred to as the 'triad partnership' as illustrated in Figure 1.

WIL is based on IM principles where each of the parties involved have a unique and critical role to play effectively and applicable to the specific circumstance (Abeysekera, 2006). The information flow between the triad partners involved with WIL, should be meaningful information exchange or feedback (Chisholm, Harris, Northwood & Johrendt, 2009). The IM for WIL process distinguishes between two main levels of IM which are referred to as personal information management (PIM) and organizational information management (OIM).

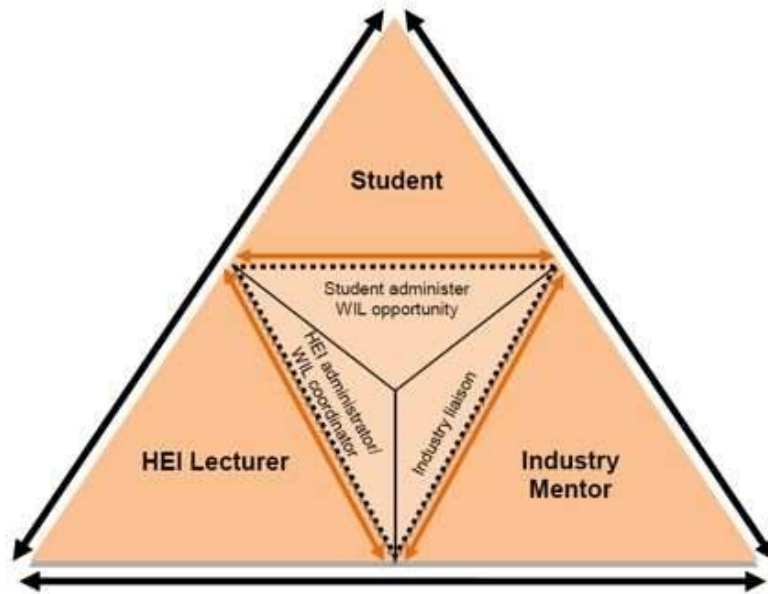


FIGURE 1: Roles and responsibility of triad partnership (Brink, Mearns & du Plessis, 2014)

*Information Management*

PIM is the management of information in the every-day lives of individuals, how information is accessed that is needed to address business and personal needs. The PIM process includes how the information is categorized and stored for future use on a personal level. According to Jones (2008) PIM activities are those efforts of establishing, using and maintaining the "mapping of information and needs" as seen in Figure 2. Jones (2008) further argues that information finding or re-finding activities, information keeping activities and meta-level activities are essential PIM activities.

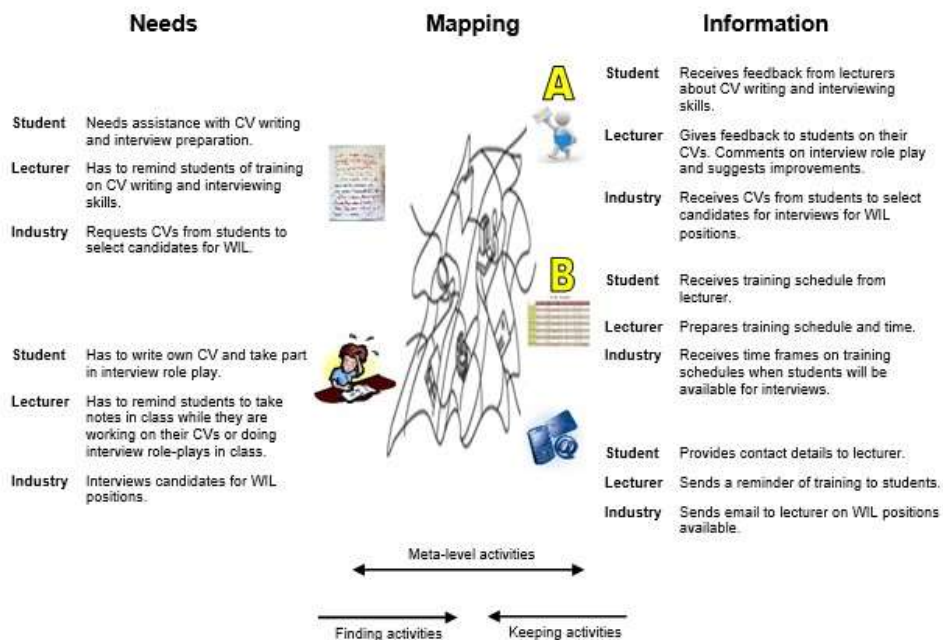


FIGURE 2: Mapping of PIM needs and information for WIL activities (adapted from Jones, 2008)

Figure 2 illustrates mapping activities such as information finding or re-finding, information keeping, and meta-level activities and provides examples relevant to WIL on a PIM level. Each of the mentioned types of activities is unique and relevant to each level of PIM and constantly changes. To distinguish between these activities the different terms are discussed next.

#### *Finding Activities or Re-Finding Activities*

These activities relate to a user who is actually engaged in a process of seeking, finding and researching data or other information sources. These searches are done in order to find and secure information which can be used to study or provide direction on a topic being developed. The use of the Internet, libraries and media publications are well-known sources and widely accepted as information resources to address personal needs.

#### *Keeping Activities*

When engaged in the individual search for information, the user is obligated to make decisions on sources accessed. The individual scanning the sources of information has to evaluate and quantify the value of information and priority thereof. It has to be clear to the user what information has to be saved, or used for record keeping purposes, and what not. The user has to decide if the information has to be archived for later use, or just noted as background to the search being conducted. The decision made in managing this information is critical to the process and has to be done on completion of analysis after each search.

#### *Meta-Level Activities*

This activity involves the grouping and classification of information obtained. All the information obtained has to be categorized in usable formats which will allow searching and retrieval of data or information. The information that was obtained has to be saved and stored in files or other means of saving information. Specific processes have to be followed which allow the information to be searchable and accessible after defined or undefined periods of time. At the meta-level, information is used which involves activities that will assist the user to access information when needed and still be able to make sense thereof at a later stage.

In Figure 2 the information categories on the right hand side of the figure relates to information shared by way of verbal communication and non-verbal communication, such as emails, SMS, twitter or hand-outs to students by a HEI lecturer. In the example [A] students are provided feedback on their CVs as presented, with comments on the quality of the document. This feedback can be provided verbally in class, but is also documented as an information source. This information source is posted on a student portal (viz organizational website) and archived for posterity; the source thus evolves into an organizational source of information (the concept of 'organizational information management' will be elaborated on later in this section after the discussion on PIM had been fully introduced). In Figure 2 the example [B] is given of training on CV preparation and interview skills that have to be communicated by the HEI lecturer with students using online communications such as email or student portals. This information category is channeled using the mapping structure suggested by Jones (2006). These mapping activities address the PIM needs of the triad partners relating to WIL, namely information finding or re-finding, information keeping, and meta-level activities.

The needs category as displayed on the left hand side of Figure 2, relates to the need for information by the triad partners. The need can vary between data sources such as a research paper or the need for a telephone number of an industry mentor to arrange interview appointments for students. The need for information can also have an instructive message such as an email to prepare for an interview at a specific date and time for consideration of a WIL appointment, or may include advice on how to dress professionally. On a personal level the student, in order to prepare a CV or prepare for an interview, has a need for information and will search for such information using a variety of information sources, and thus the concept of PIM in WIL.

PIM is a critical part of every individual's life and is based on specific principles similar to organizational information management. The main difference between the PIM environment and the OIM environment is in terms of an organizational versus personal level of management. OIM is considered as another core area of IM

for WIL. Hicks, Culley, and McMahon (2006) define IM from an organizational perspective, saying that it includes activities that support the information lifecycle from creation, representation and maintenance, to communication and reuse, as part of the management process of information. Sheriff, Bouchlaghem, and Yeomans (2012) further state that an information-intelligent organization understands the value of information. The value of information is based on the successful search, locate, assemble, analysis, use and reuse of all forms of information products required for a task. If for example a financial institution does not have a highly controlled and credible IM system for their information it may have a catastrophic impact on the viability of the organization.

Organizations rely on various critical systems which allow control of all information in whatever way it applies to the organization. These organizations base the effectiveness of the organization on a reliable and credible IM process, which can be audited to ensure accountability based on sound management of information. HEIs are typically organizations that are hugely reliant on management of information sources. HEIs have an obligation and responsibility to manage all types of information in a responsible and secure manner. This statement is supported by way of the following practical example. Student X is studying at the department of Hospitality Management. This student is a third year student and the progress of the student is recorded on the information database of the HEI. This includes the academic history and financial status of the student. Among many other applications, the system also provides for progress on the WIL status of the student. At times the progress of the student pertaining to WIL involvement affects the student's standing in terms of qualifying for final exams, based on the result of WIL deployment. Should the WIL record for the student become unavailable or compromised on the system, it may have devastating effects on the student. The information breakdown can affect student throughput or graduation which is reliant on OIM. The organization places the same value on this information as it affects the overall control of credible records within the organization. Organizations need strict control of their systems to be in place to manage information, in certain circumstances they are required by specific legislation regulating the IM, for example, the Protection of Personal Information (POPI) Act (GG, 2013). After the ratification of the bill on 29 November 2013, organizations such as HEIs will now have to strongly rely on IM for WIL in line with POPI regulations (the principles and application of legal information management fall beyond the scope of the current research, but has to be noted here).

The mentioned examples above have an impact on all organizations which include HEIs. HEIs have the obligation and strategic insight to grasp the serious value of a well-structured IM process. HEIs that have WIL as one of their teaching offerings have to consider it as a critical function to manage and facilitate the IM for WIL effectively. In the context of WIL, HEIs have to manage this process based on information related to the triad partnership. The South African Council on Higher Education (CHE) (2011) stated that curriculum development always has to address multiple interests and needs. It should encompass processes of designing, implementing, evaluating and adjusting programs of study in the triad partnership as shown in Figure 3. This partnership includes the HEI lecturers, industry mentors and students.

The management of OIM in terms of WIL has different layers of activities and responsibilities. The triad partnership based on the relationship between student, HEI lecturer and industry mentor has to have a well-structured and credible IM model. On the personal level the triad partnership is based on individual roles and responsibilities, as described above and illustrated previously in Figure 2 as mapping activities.

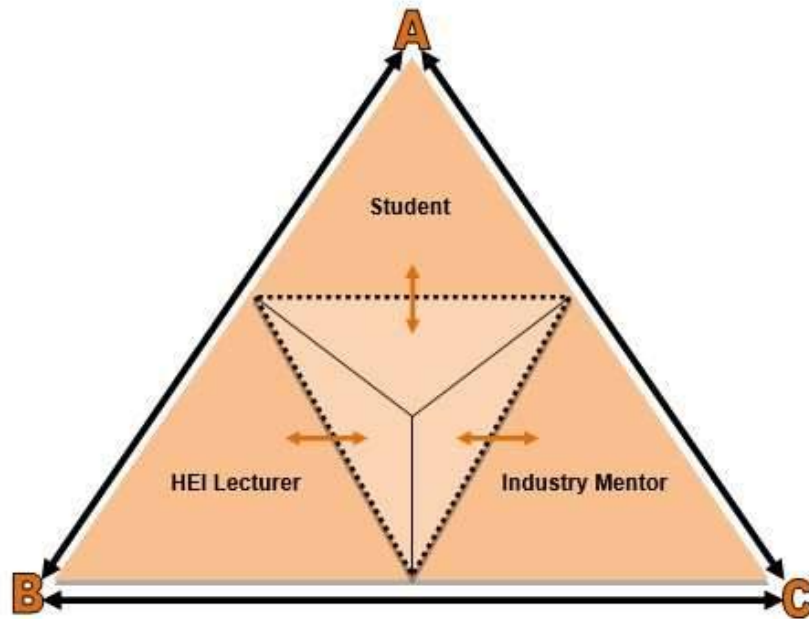


FIGURE 3: PIM and OIM within the WIL process (own source)

Following on the above discussion, the sharing of information and interaction of the triad partners in the PIM and OIM environments require a well-managed information model based on good IM principles. An overarching principle, the Janus principle, is developed for this study. This means the partners in the relationship each has doors to open and close as they move between PIM and OIM (cf Figure 3, crossing the dotted line). Depending on their roles within the relationship each partner has two levels with different responsibilities. On a PIM level as illustrated in Figure 3 with border arrows stretching along the periphery, the student has to manage information on a personal level such as studying and completing a CV and has to make personal decisions on what information will be recorded in the CV and which information is required in order to complete the document. The student may need to be advised and require interaction with the HEI lecturer and/or the industry mentor. This is an example of the PIM experience of the student attending to a request from the HEI lecturer and/or the industry mentor, for the student's CV. The HEI lecturer, for example, has the same PIM environment (visualize the ends of the peripheral arrows [A], [B] and [C] in Figure 3 being pulled together and upwards, forming a pyramid, thereby creating a continuous, three faceted PIM environment, divided by Janus doors). The HEI lecturer may have questions which need to be responded to by the student or the industry mentor in order to guide and advise the student on the CV completion. The HEI lecturer has to determine what the latest process and correct CV submission requirements are and guide and teach the student accordingly. The HEI lecturer has to manage the information in such a way that the student is correctly advised and properly briefed on the process in accordance to the industry process requirements, for instance. The industry mentor on the PIM level has to decide what the critical skills are and qualifications which would best suit the organization that requires the services of the student and HEI lecturer. The industry mentor has to be sure what has to be contained in the documents and what information has to be provided to ensure the most appropriate candidate is identified for interviewing. This example refers to an elementary and single incident of CV writing as just one of many instances where PIM and OIM takes place during the course of the WIL process. The partners in the WIL process thus have Janus doors to open and close in between PIM and OIM. Also, the PIM levels of the triad partners meet in the form of a pyramid (cf Figure 3)

The above pyramid and Janus door description fit the organization of HEIs which typically have multi-level organizational structures that impact on the level of expertise required to effectively manage information in such a structure. HEIs differ in size and capacity based on geographical and demographical areas which the institutions serves. A HEI such as the University of Johannesburg (UJ) have nine faculties and each faculty consist of between four and nineteen departments. Within the different UJ faculties there are various and unique

role players who are responsible for providing quality education to students. The development and education of the student is of the utmost importance and is the main focus of this organizational domain. Academic personnel, supported by administrative units are on a continuous basis engaged in resourcing and capacitating student learning facilitation. Based on these various role players and their unique functions and responsibilities it is critical that extensive OIM practices and policies have to be in place. The process of managing, recording and archiving all these functions is a critical process to ensure UJ student development and teaching is based on fact, as recorded in OIM systems. Activities related to student and HEI lecturer engagement should be effectively documented and recorded by way of several processes. Examples of these processes are academic records, student portal engagement of activities, class attendance records, electronic assessment logs and all other diverse information sources. OIM is crucial and have to be managed as a critical part of IM, however when the PIM level is encountered the same commitment and professionalism of engagement is required.

On a PIM level the complex decisions and interaction by the triad partners have to be based on well-structured IM principles and guidelines. The volume of information and the scale of decisions which have to be made on this level are immense and have further to contend with interpersonal information sharing. These interactions are within the personal interaction milieu. The PIM level which requires the sharing of information and interpersonal engagements naturally evolve into the next level of IM which is referred to as OIM. On this level the OIM of the triad partners now source and share information on an organizational level. In summary, the information activities of the WIL triad partners are complex and the management of information is required to address the partners' expectations of WIL. This complexity of IM for the WIL process will be discussed after the research design apply to this study.

## RESEARCH DESIGN

A qualitative research design was used because it aims to understand the phenomena in context-specific settings, such as a "real world setting, where the researcher does not attempt to manipulate the phenomenon of interest" (Patton, 2002). According to Strauss and Corbin, (2008) researchers who engage in a qualitative design do so because of the flexible, dynamic and evolving nature of qualitative research as opposed to the inflexible design used in quantitative research. Strauss and Corbin (2008) further argue that by doing qualitative research the researchers will be allowed to experience the inner perspective of the participants. They would also be able to determine how meanings are formed and discover rather than test variables. The understanding of the "essence of a phenomenon as it is experienced by individuals" was what was required in conducting this research (Clark & Creswell, 2010). According to Longhofer, Floersch and Hoy (2012) the structures of conscious experience as experienced from the first-person's point of view, along with relevant conditions of the experience allowed the researcher to become fully immersed in the processes that each of the HEI follow to conduct their WIL experience. The data collected explores the involvement of the WIL coordinator/lecturer, industry mentor/liaison and student in the IM of the administration of the WIL process.

The WIL coordinator/lecturer and industry mentor/liaison from UJ at the seven identified UJ faculties and 16 academic departments involved in the IM for WIL were consulted. These academic departments are spread across various faculties involved namely; Electrical Engineering, Mechanical Engineering, Mining, Bio Technology, Food Technology, Analytical Chemistry, Architectural Technology, Clothing, Curriculum and Instruction, Public Relations and Communication, Tourism, Hospitality, Marketing, Radiography, Emergency Medical Care, and Environmental Health. The consultation sessions employed the method of semi-structured individual interviews. The students from UJ within the seven identified faculties in mentioned departments, were involved in group discussions that were done with the students per faculty. HEI lecturers and industry mentors involved in the IM for WIL were included in semi-structured individual interviews. Students from the identified departments involved in the WIL process took part in group interviews. The current variety of processes were investigated in the identified faculties and departments related to the WIL process and the complexity of the IM for WIL process was then highlighted through these collection of data.



## COMPLEXITY OF THE DYADIC RELATIONSHIP WITHIN THE WIL PROCESS

The complexity of the roles and responsibilities of the triad partnership for WIL is illustrated in Figure 1. The outside arrows indicate the triad partners which are based on the principle of management of information in an organizational environment, be it on a PIM or OIM level. The inside arrows indicate the triad partners responsible for administration and management of the IM for WIL process on a PIM or OIM level. The multi-level structure is based on personal level interaction between the academic and administration triad partners. Mentioned triad partners have specific and unique responsibilities and functions which have to be fulfilled. From an organizational perspective mentioned (outside arrows), phased groups on different administrative levels also cooperate and interact based on boundary-spanning concepts. The HEI lecturer and HEI administrator have different functions and are appointed to provide services in line with these allocated responsibilities. The HEI lecturer, for example, is responsible for preparing the student for the work place; the HEI administrator is responsible for the placement of the students in industry. At some departments these individuals are the same person fulfilling the roles of HEI lecturer and HEI administrator, in other departments there are more than one individual responsible for these tasks, which affects the complexity of the interactions.

These different groups with their unique functions and responsibilities provide insight and understanding on the complexity of relationships within the organizational structure. On industry level the industry mentor is responsible for overseeing the student while doing their WIL placement. The industry liaison is the person responsible for the placement of the student in the organization. Sometimes the role of the industry mentor and industry liaison can be fulfilled by the same person due to budgetary constraints. The boundary-spanning concept is a good practice concept which guides intricate relationship responsibilities. These responsibilities are part of the personal and organizational level collaboration. Relationships are multi-faceted based on the groups or individuals involved. The numbers of groups and individuals involved in this triad partnership have a complex nature which has to be founded on a well-developed strategy. Hargie (2011) states that the number of groups and levels of interaction influences the complexity of the interrelationship between the partners.

According to Hargie (2011) to determine the potential two-way relationship, the formula to chart the number of dyadic relationships (R) in a group, as a factor of number of members (n) is as follows:

$$R = \frac{n(n - 1)}{2}$$

The following examples explain the complexity of three scenarios for WIL dyadic relationships, between the academic and administration triad partnership as shown in Figure 1. The complexity of information flow between triad partners is affected by the number of partners involved in the WIL process. The number of triad partners as shown in Table 1 can differ and based on the number of partners involved it can have a direct impact on the number of dyadic relationships.

TABLE 1: Calculation of number of dyadic relationships

Example group	HEI Admin	HEI Lecturer	Student	Student Admin	Industry mentor	Industry admin	Total members involved in relationship	n	(n - 1)	$\frac{n(n - 1)}{2}$ R
A	1	1	1	1	1	1	6	6	5	15
B	2	2	250	250	600	150	1,254	1,254	1,253	785,631
C	1	80	500	500	665	95	1,841	1,841	1,840	1,693,720

To explain this trend a sample of one HEI lecturer, one HEI administrator, one student, one student administrator, one industry mentor and one industry administrator, makes up the full dyadic relationship cycle. In using the dyadic relationship calculation the complexity value of the relationship is reflected in the R value. The R value refers to the number of separate potential two-way relationships between the triad partners. When

the formula group consists of six members in a relationship, the calculation is done as follows. The formula group (cf Table 1: Example group A) would then consist of  $[6 \times 5] \div 2 = 15$  separate potential two-way relationships between members.

The second example group (cf Table 1: Example group B) from the Electrical Engineering Department at the UJ consists of the following triad partners on an academic and administration level. Two HEI lecturers, who are also responsible to act as HEI administrators, 250 students from the same department (viz student sample group) and these students also act as 250 student administrators (viz responsible for administering their own studies). An average of four industry mentors (per company) and 150 industry administrators (companies) make up the industry component of the triad partnership. The total members in the relationship consist of 1,254 members. The dyadic relationship calculation would then be  $[1,254 \times 1,253] \div 2 = 785,631$  separate potential two-way relationships between members. This number reflects the massive increase in dyadic relationships when minimal numbers of individuals are added to the triad partnership.

The Faculty of Education at UJ is the third example group to display the complexity of the WIL dyadic relationship where the numbers of the triad partners increase substantially. The third example group (cf Table 1: Example group C) consists of 80 HEI lecturers and one HEI administrator. The HEI lecturers are made up as follows, 25 HEI lecturers involved in preparing students for WIL and 55 HEI lecturers assessing students during WIL placement. In this example 500 fourth year students are part of this example group and they also act as the 500 student administrators. The industry mentors total 665 individuals that are made up of 95 industry facilities namely schools which have appointed an average of seven industry mentors per school. The 95 industry facilities form the number of industry administrators. The total members in the relationship consist of 1,841 members. The dyadic relationship calculation would then be  $[1,841 \times 1,840] \div 2 = 1,693,720$  separate potential two-way relationships between members. Note the complexity of Example group B and group C discussed in Section 4.3.2.1 and Section 4.3.2.4.

The complexity of the dyadic relationships in the IM for WIL process increases with the number of triad partnership members involved in the process. The rationale of exposing the complexity of relationships based on number of partners involved, impacts on the realization that the information related to these relationships have to be well-managed. The management of these relationships is done on the IM for WIL principles, which requires serious planning, proper systems and well recorded system updates, of any activities which relate to WIL. The number of role players will dictate the complexity of the IM model which in turn requires a critical concept and theory to manage the process effectively.

The concept of boundary-spanning has to be put in place which allows building and maintaining relationships that are necessary to support effective boundary-spanning (Beechler et al., 2009). Boundary-spanning with the student and the industry serves two purposes for the HEI, they detect and process information about changes in the industry and they represent the HEI's interests to the industry. If there is no boundary-spanning between the triad partners in the IM for WIL, the partners will experience uncertainty of what is expected from each member in the triad partnership.

If the triad partners are uncertain about what they have to do in this relationship, or what is expected of them, they will become emotional or some of the partners may experience anxiety. These negative feelings or experiences can have a negative impact on the outcomes of the WIL program. To have an effective IM for WIL model, the exchange of information between the triad partners must be done through effective boundary-spanning.

## CONCLUSION

The two major things highlighted in this article are the importance of the relationship of the triad partnership and the complexity of the triad partnership. The important role of the triad partnership is highlighted through the review and analysis of the existing literature in the field of IM and how it pertains to WIL at HEIs. The importance of the relationship is grounded in the interaction of the triad partners on an academic as well as on

an administrative level, between the triad partners. Through boundary-spanning the sharing of information between the triad partners becomes well-managed. This is critical to the success of the IM for WIL process. The many actions of information flow and other changes are monitored by boundary-spanning. Boundary-spanning improves IM – it is referred to as the process of information exchange. Information exchange in the IM for WIL domain can take place on organizational and personal levels. At these levels, IM is referred to as organizational information management and personal information management. OIM and PIM take place inside and across the triad partnership through Janus doors at all organizational levels, involving the HEI, industry and student engaged in the WIL process.

By moving between the Janus doors during this triad partnerships it is clear that the IM for WIL process is a complex dyadic relationship process involving PIM as well as OIM. OIM is the core focus area which has to be managed and developed to international standards at HEIs. Certain IM strategies and measures have to be put in place to ensure the IM for WIL process is effective and addresses the information exchange requirements of the triad partners. Without a well-developed and researched IM for WIL process the complexity of WIL information and processes and the lack of a strategy for the management of information will compromise the efficiency of any WIL program.

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# The Effectiveness of Curricular Changes as Seen Through Co-op Evaluations

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## ABSTRACT

Cooperative Education programs which use employer evaluation tools consistently, offer academicians the ability to see what kind of effect changes to their courses or to curricula have on student performance on the job. This paper and presentation will show how curricular adjustments in engineering and design programs have affected student performance as seen through employer evaluations. The paper will outline how decisions were made on which curricular reforms need to be studied, how the study was conducted, the results of the study, and how these results are useful to academic and co-op faculty as well as students. Part of the presentation will also cover the structure of the assessment tool, how it can be used for this type of research, and the advantages it offers academic programs which include cooperative education.

## INTRODUCTION

The University of Cincinnati has used the cooperative education model in professionally oriented academic programs in its engineering, and design disciplines over the last 110 years. Most of these programs were founded with the cooperative education model which requires alternating periods of academic classes and paid professional work. Reflection on the professional experience is a basic component of the cooperative education model, therefore, during periods of professional work, students evaluate their own performance, and employers (supervisors) evaluate the work of the students they employ.

The reflection and evaluation process improves students' professional growth, however, it can also help cooperative education faculty shed light on the effect of academic programs on students' on-the-job performance. This is a unique opportunity afforded to those schools which have a well-structured cooperative education program with consistently used evaluation tools.

We assume that academic curricula which lead to engineering or design professions among others are intended to give graduates the best opportunity for success in their professional discipline. Furthermore, academic programs which include cooperative education allow full classes of students to work professionally at several points during their education. The evaluation tool therefore, in addition to being primarily a reflection and learning opportunity for students, has the capacity to allow educators to track the effects of their efforts on their students.

This window into the effectiveness of curricular delivery is only possible because of the cooperative education model, however, we have done relatively few studies which take advantage of this unique opportunity to date.

This paper will review two cases each representing a type of study that can be done using results gleaned from our online evaluation tool. The first concerns the architecture program where two courses were altered and combined, and the second measures the effectiveness of a new mid-curricular group reflection course for several disciplines in the engineering program.

## ARCHITECTURE RESTRUCTURING AND COMBINING TWO CORE CURRICULUM COURSES

### *Introduction and Problem Description*

One particular study, concerning a curricular change in the architecture program involves the analysis of students' ability to understand architectural detailing for preparation of construction documentation. This is a skill which is fundamental to the execution of an architectural design. At the professional architectural firms where co-op students worked, drafting has been prepared in a digital format over 99% of the time since 2002. Between the early 1980s and the early 2000s architectural firms were converting to a digital format, and by that year there were no firms who employed UC architecture co-op students and prepared construction documents by hand.

Between 2002 and 2005, it was brought to our attention anecdotally that students' understanding of building construction fundamentals and their ability illustrate construction details digitally was lacking. To quantify these assertions, questions were formed for inclusion in the employer evaluation form that is sent to employers near the end of each student's cooperative education term in the format shown in Figure 1.:

### Survey form of supplemental questions

Thinking about this student, please rate him/her on the following **building construction** performance skills.

The performance skills should be rated using the following scale.  
5 = Excellent (the best or one of the best in this category)  
4 = Good (above average but not excellent)  
3 = Satisfactory (average when compared to others in this category)  
2 = Poor (lacking in some important aspects or less than satisfactory)  
1 = Unsatisfactory (lack of ability, failure to use it, or any other cause)  
N/A = Not applicable or no opportunity to observe

#### Building Construction

#### Rating Scale

	5	4	3	2	1	N/A
a. Effectively uses digital technologies to represent building construction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Understands the complexity of building construction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Understands the complexity of detailing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Understands how modeling and drawing translate into a structure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

FIGURE 1: Questions sent to employers.

These questions (Figure 1) continued to be used in this format through the end of 2013 and are available to employers through our web-based assessment tool. Analysis of co-op employer evaluations were used to verify that this area of the core curriculum did indeed warrant some type of intervention. Adjustments were therefore made to two courses. Faculty who taught construction methods and materials and the digital skills course believed combining their courses would directly benefit the students in both the academic and practice realms. The objective was to address pedagogical needs and employer concerns at the same time. Our cooperative education program works on the premise that higher student performance on the job leads to more learning opportunities.

### *Challenge*

This was a first. A faculty curriculum committee had not before used employer feedback as a way of driving curricular adjustments, and took some effort in convincing the academic unit faculty that there was value in it. The challenge was to find a way to deliver the course material in a way that would improve the students' knowledge of the topic while improving performance in their paid professional work. Constructing the curriculum to both satisfy the points raised by the employers and the larger pedagogical goals of the curriculum was challenging. This first trial proved that using coop employer feedback is at least useful, and in some cases critical in curricular design.

### Strategy

This strategy of combining digital skills and construction methods and materials courses allowed students to use their newly acquired digital skills to draw construction details much in the same way they might be drawing construction details in a professional architectural firm. It gave purpose to the digital drawing exercises assigned to students. A great benefit in this particular case was the fact that the professor who taught construction methods and materials was very familiar with computer aided drafting as well as digital modeling. Once the syllabus and instruction schedule was rewritten for both courses, subsequent employer evaluations were studied to see if there was a measureable difference in student performance. Since classes were split into two sections, one which worked in the spring and one which worked in the summer quarter, the classes were taught in the usual way in the Winter quarter of 2005 for “section I”, but in the Spring quarter, the classes were combined for “section II”.

The following shows average Likert scale results that were acquired through the supplemental questions on employer evaluations.

TABLE 1: Leveraging cooperative education to guide curricular innovation: The development of a corporate feedback system for continuous improvement

	Group I	Group II
Effectively uses digital technologies to represent building construction	4.27	4.26
Understands the complexity of building construction	3.78	3.81
Understands the complexity of detailing	3.52	3.56
Understands how modeling and drawing translate into a structure	4.08	3.91

### Lessons Learned

The initial results did not show a significant change, however, more recently, the results were tracked for subsequent years, with sample sizes that were significantly higher than the initial study. We found that results continued to improve as the courses continued to be taught in the same combined manner. Of the four questions used, there was a marked improvement in terms of effective use of digital technology, understanding the complexity of building construction and detailing. In terms of how modeling and drawing translate into a structure (the fourth question), there was a slight decline. In general, the employer ratings improved until 2010 at which time they reached a peak, but changes in the profession prompted another curricular change.

TABLE 2: Results from 2006 to 2010.

	2006	2007	2008	2009	2010
Effectively uses digital technologies to represent building construction	4.37	4.37	4.44	4.49	4.50
Understands the complexity of building construction	4.10	4.16	4.26	4.25	4.28
Understands the complexity of detailing	3.91	3.92	4.01	4.06	4.12
Understands how modeling and drawing translate into a structure	3.86	3.88	3.98	3.99	3.99

By 2011, approximately one third of architectural firms had begun to adopt building information modeling (BIM) software. This software represented a significant shift in how buildings were being drawn for construction documentation. Instead of creating digital line drawings, designers could create three dimensional digital

models which hold a great deal of information. According to a study by the Greenberg Group published in the April 2010 issue of *Architect Magazine*, about 34% of architectural firms had been using BIM software and that number was on the rise. In order to stay ahead and in light of the shift to Building Information Modeling, the digital skills class switched from using *AutoCAD* and *Form Z* to the BIM software package, *Autodesk Revit*.

Table 3 compares the results of 2010 with the results from the subsequent three years when the digital skills portion of the class was taught using the BIM Modeling software, *Autodesk Revit*.

TABLE 3: Results from 2010 to 2013

	2010	2011	2012	2013
Effectively uses digital technologies to represent building construction	4.50	4.37	4.44	4.49
Understands the complexity of building construction	4.28	4.16	4.26	4.25
Understands the complexity of detailing	4.12	3.92	4.01	4.06
Understands how modeling and drawing translate into a structure	3.99	3.88	3.98	3.99

We are seeing that there is a slight decline between 2010 and 2011, and a reversal back to the 2010 numbers by 2013. We believe that is because in 2011, many firms still utilized AutoCAD heavily and our students were no longer as well prepared in that paradigm when they arrived at their first coop. We see this slowly changing as more firms are using the BIM software, and currently we are at or very near the 2010 numbers.

#### ENGINEERING INTRODUCTION OF A NEW MID-CURRICULAR GROUP REFLECTION COURSE.

##### *Introduction/Problem Description*

Engineering students traditionally meet individually with their co-op advisors following each co-op term. During this meeting, students reflect on their co-op experience and discuss co-op term learning objectives and personal learning goals. While individual reflection meetings provide valuable opportunities for student growth and self-evaluation, these meetings do not allow students to share their experiences with other students or to participate in group reflection. Students in the engineering co-op majors often express interest in learning about the co-op experiences of other students in their discipline in support of planning their own career trajectories. Unfortunately, there was no official mechanism for students to share their co-op experiences with others. In addition, students complete reflection meetings with co-op faculty; however, engineering faculty who teach core technical courses are often left out of this feedback loop. Engineering college faculty expressed the need to formally engage with students following co-op, specifically as a way to collect student feedback to aid in the ABET accreditation process.

##### *Challenge*

In response to this need, ProPEL (the division of Professional Practice and Experiential Learning) at the University of Cincinnati piloted a Mid-Curricular Co-op Community course in the fall of 2014. This one-credit-hour course is a requirement for all students in Computer Science, Computer Engineering, Electrical Engineering, and Electrical Engineering Technology, following their second co-op experience. The course is designed to formalize a group reflection process for students, provide feedback to the engineering college to drive curricular change, and improve students' abilities to articulate their co-op experiences and skills gained to multiple parties, including employers, faculty, and other students. These objectives are completed through group discussion of various topics from personal strengths to professional ethics in the fields of computing and electronics. Students are also asked to create an ePortfolio, to communicate their experiences to parties with both technical and non-technical backgrounds.



### Strategy

The Mid-Curricular Co-op Community course was piloted in the curriculum of the class of 2017, with most students in the cohort taking the course in the spring of 2015. Students in the spring course returned to co-op in the summer 2015 term which provided a valuable opportunity to examine co-op employer evaluations for notable changes. These evaluations were compared to evaluations for summer 2014 co-op students in the class of 2016, who were at the same stage in their curricular plan but hadn't taken the community course. There are several areas in the employer evaluations that show a notable increase in score between the summer 2014 and summer 2015 co-op terms. These increases are referenced in table 4.

TABLE 4: Results from class 2016 and 2017.

	Class of 2016	Class of 2017
Sets goals and prioritizes	4.04	4.30
Functions well on multi-disciplinary team	4.17	4.37
Demonstrates a positive attitude toward change	4.38	4.50

### Lessons Learned

The initial results show increases in several areas, most notably students' abilities to set goals and prioritize, function on multidisciplinary teams, and demonstrate a positive attitude toward change. Although it is too early to tell whether or not the new community course causes an increase in student performance in these three areas, it is interesting to see the correlation between the introduction of the course into the curriculum and changes in certain areas of the co-op employer evaluation. There are many more questions that can be answered through further study of the employer evaluations concerning the introduction of this new course.

### CONCLUSION

In the architecture example, using the employer evaluation tool especially with the supplemental questions before and after the instruction of the curricular change proved to shed light on the effectiveness of curricular changes. Furthermore, it reflected changes in the profession over the long term as more employers started using building information modeling more frequently. In the engineering example, the current evaluation tool was used before and after the introduction of a new course to evaluate its effect on employers. This study highlights the most pronounced effects, and demonstrates that valuable information about curricular changes is contained in in consistently used evaluation tools.

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# Lifelong Learning and Cooperative Education

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## INTRODUCTION

Post-secondary education (PSE) institutions' role in training future professionals is evolving. Students will fill roles that have not yet been created (Hopkins, 2010; Voogt & Roblin, 2010). Additionally, many students go on to work in areas outside of the field of study (Kirby, Knapper, Lamont, & Egnatoff, 2010). These trends suggest that the challenge for PSE is to equip students with the ability to learn (Deakin Crick, Broadfoot, & Claxton, 2004; Kirby et al., 2010; Su, Feng, Yang, & Chen, 2012).

An emerging area of literature refers to such individuals as *lifelong learners* (Billett & Choy, 2011; Chisholm, 2012). Hojat, Veloski, Nasca, Erdmann, & Gonnella (2006) describe lifelong learning as a "concept that involves a set of self-initiated activities and information seeking skills that are activated in individuals with a sustained motivation to learn and the ability to recognize their own learning needs" (p. 931). Lifelong learners are those who actively engage in the search for knowledge for its own sake, and who embody certain learning-oriented values and attitudes (Hojat et al., 2006; Kirby et al., 2010; Lichtenberg & Goodyear, 2012).

Exactly what attributes characterizes lifelong learners and how to measure these attributes remains debated (see Deakin Crick, & Yu, 2008; Wielkiewicz & Meuwissen, 2014). Existing instruments may be problematic (Chen, 2012). Furthermore, how PSE can develop these attributes remains unclear. Because many stakeholders value lifelong learners and ask that PSE demonstrate their contribution to the development of lifelong learners (see Vasquez, 2011; Peat, Taylor, & Franklin, 2005; Taylor & Neimeyer, 2015), conceptualizing and measuring lifelong learning attributes is important.

This study develops and tests a brief self-report measure of students' lifelong learning attributes. Using this measure, this study also explores lifelong learning attributes for students in two different programs: regular and cooperative education (co-op). Previous work suggests that co-op and lifelong learning may be linked (Billett & Choy, 2011). This study therefore expands understandings of lifelong learning and co-op.

## LITERATURE REVIEW

### *Conceptualizing Lifelong Learning Attributes*

A review of the literature suggests that there are four central attributes to lifelong learners: (1) a passion for or love of learning; (2) use of self-directed, proactive, or self-initiated learning strategies; (3) self-awareness; and (4) resilience towards learning challenges.

*Love of Learning.* Lifelong learners love learning for its own sake (Hojat et al., 2006; Wielkiewicz & Meuwissen, 2014). They are emotionally tied to learning experiences and derive great pleasure from learning new things (Deakin Crick et al., 2004; Kirby et al., 2010). The love they feel emanates from an internal – not external – source (Hazari, Potvin, Tai, & Almarode, 2010).

*Self-Direction.* At the core of lifelong learning is self-direction (Field, 2001). Lifelong learners create their own learning experiences and often create a plan or *map* for their own learning (Chen et al., 2012; Cournoyer & Stanley, 2002; Deakin Crick et al., 2004) and use a number of behavioural strategies such as goal-setting (Kirby et

al., 2010) and information seeking (Cropley & Knapper, 2000; Ross et al., 2011). Therefore, lifelong learners are self-reliant, proactive, and in many ways *entrepreneurial* about their learning (Hojat et al., 2006).

*Self-awareness.* Lifelong learners also think about their learning experiences at a higher level which the literature describes as self-awareness (Hojat et al., 2006; Kirby et al., 2010; Sim, 2003). This notion has conceptual underpinnings in self-regulation and metacognition. It suggests that lifelong learners engage in certain behaviors such as reflection as a mechanism for thinking about their own learning (Deakin Crick et al., 2004; Deakin Crick et al., 2008; Tucshling, 2006). By reflecting on past learning experiences, lifelong learners can evaluate how well they have learned in a given situation (Cropley & Knapper, 2000).

*Resilience.* Finally, lifelong learners are resilient. Resilience refers to the capacity to *bounce back* after a stressful experience (Smith, Dalen, Wiggins, Toller, Christopher, & Bernard, 2008). When lifelong learners face challenges, they are not deterred. Rather, they persist or push through (Candy, Crebert, & O'Leary, 1994). They do so by adapting their learning strategies to meet the problem at hand (Knapper & Cropley, 2000; Wielkiewicz & Meuwissen, 2014).

#### *Measuring Lifelong Learning Attributes*

Four instruments emerge from the literature as the most used and most frequent means of measuring students' lifelong learning attributes: (1) Deakin Crick et al.'s (2004) *effective lifelong learning inventory* (ELLI); (2) Hojat et al.'s (2003) *Jefferson scale of physician lifelong learning* (JSPLL); (3) Kirby et al.'s (2010) *lifelong learning questionnaire* (LLQ); and (4) Wielkiewicz and Meuwissen's (2014) *lifelong learning scale* (LLS).

Each instrument has characteristics that may make it undesirable for use to study students' lifelong learning attributes. For example, ELLI is quite long (Chen et al., 2013). Versions of ELLI tend to fall between 65 and 112 items, making it cumbersome for use by most practitioners. ELLI is also a proprietary instrument, making it financially inaccessible to many programs. The JSPLL, while considerably shorter than ELLI (typically 19 items in most versions), is very specific to the medical and paramedical professions. Very little content of the JSPLL is valid outside of a medical context, offering little opportunity to generalize to other contexts. The LLQ is a desirable length (14 items), but suffers from a lack of psychometric testing. Though the LLQ purports to measure five dimensions of lifelong learning, Kirby et al.'s original principal axis factor analysis revealed a unidimensional solution that captured very little of the items' total variance. This suggests that the LLQ may suffer from construct validity issues. Most recently, the LSS (16 items) has received support for its correlation with various in-class behaviours (e.g., negatively related to in-class texting) and personality dimensions (e.g., conscientiousness; Wielkiewicz & Meuwissen, 2014). However, like the LLQ the LSS fails to consider multiple aspects of lifelong learning attributes, as suggested by the literature reviewed in this study. Therefore, the operationalization of lifelong learning is inconsistent with its conceptualization as a multi-dimensional, higher-order construct.

#### *Cooperative Education and LLL*

It is unlikely that the attributes of lifelong learners can be developed at one time (Field, 2001), and it is unlikely that such attributes are developed in classrooms (Chen, 2012). Co-op may provide an alternative approach to the development of lifelong learners. Co-op provides opportunities for formal and informal learning in academic and work contexts (Abukari, 2005; Eraut, 2000; Sattler & Peters, 2013). This is consistent with the belief that lifelong learning opportunities can be both formal and informal in many settings (Cremers, 2014; Edwards et al., 2002; Kirby et al., 2010; Merriam et al., 2007).

Furthermore, co-op programs may contain specific mechanisms that align with lifelong learning attributes. Work experiences have previously been discussed as containers for the development of lifelong learners (Edwards et al., 2002; Field, 2001; Smith, 2000). Co-op also provides students opportunities to engage in self-reflection, which some have discussed as an important tool for the development of lifelong learners (see Kirby et al., 2010). The individual nature of co-op (e.g., each student chooses different work experiences) may also facilitate important self-directed behaviors. In co-op, students learn to balance demands across academics, work,

and life. Taking control of their own experiences, and sometimes struggling to do so, students may also develop resilience towards new learning situations.

## METHODOLOGY

### *Scale Development*

Keywords describing the four interrelated concepts described earlier were developed and used to search for instrumentation within the existing literature. A panel of two WIL researchers, two cooperative education practitioners (one director of a co-op program and one program evaluation professional) and an undergraduate research assistant (enrolled in co-op) discussed the appropriateness of existing scales. Apart from the four instruments mentioned earlier, three other scales were identified as being relevant: (1) Guglielmino's (1978) *self-directed learning readiness scale* (SDLRS); (2) Ryan and Connell's (1989) *academic self-regulation questionnaire* (SRQ-A); and (3) Ryan's (1982) *intrinsic motivation inventory* (IMI). Items borrowed from the seven instruments identified, as well as items developed by the researchers were combined to create a 27-item initial instrument.

### *Scale Validation*

The scale was administered electronically to co-op students ( $n = 2,833$ ) and non-co-op ( $n = 1,761$ ) students at a Canadian University. All participants were instructed to think about the extent to which they embodied each of the 27 items in the instrument and to respond on a five-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The instrument was also translated into French and administered to co-op students ( $n = 172$ ) at a French university. This strategy would allow for the researchers to test the instrument between two different co-op contexts, and between and co-op and non-co-op context within the same institution.

*Exploratory Factor Analysis.* The factorability of the instrument was first assessed with three separate exploratory factor analyses (EFA) using SPSS (v.23). The analyses were conducted with three separate samples: (1) French co-op, (2) Canadian co-op, and (3) Canadian non-co-op. Analysis used maximum likelihood extraction and direct oblimin rotation. Results of the analysis were assessed following guidelines provided by Costello and Osborne (2005), and Hair, Anderson, Tatham, and Black (1995).

Across all three samples, a four-factor solution retaining 12 to 13 items was found to be best. Model fit statistics (KMO, Bartlett's test of sphericity, chi-square test) were above acceptable levels (see Hair et al., 1995). Generally, *love of learning* accounts for the most variance, followed by *self-reflection*, *information seeking*, and *resilience*. The models accounted for a significant amount of variance in each sample (Canadian non-co-op: 59.19%; Canadian co-op: 64.36%; French co-op: 60.60%). No significant cross-loadings or mixed loadings emerged in any of the samples, suggesting a clean and consistent pattern.

### *Confirmatory Factor Analysis*

A confirmatory factor analyses (CFA) was conducted in AMOS (v.22) to confirm the results. The model was tested using Byrne's (2013) multi-group CFA approach. Adequacy of the model was assessed following guidelines proposed by Hair, Black, Babin, and Anderson (2010). Table 1 shows the results of the analyses.

Results show that the proposed model fits the data well in the Canadian co-op and the French co-op samples. However, the model does not fit the data well in the Canadian non-co-op sample. Upon further inspection, the item "I rarely spend time in self-reflection" does not load well on its respective factor. This item was removed.

All three samples were then added together into the multi-group analysis (see Byrne, 2013). The multi-group analysis consisted of testing two nested models. The first is called an "unconstrained" model in which all of the factor loadings are freely estimated. The second model, the "weights constrained" model, constrains each factor weight to be equal *across groups*. If the weights constrained model does not fit *less well* than the unconstrained model, there is evidence of multi-group invariance. Results show that model 3 fits the data as well as model 2 ( $\Delta\chi^2/df = 22.28, p = n.s.$ ).

TABLE 1: Model Fit Statistics for CFAs

Model	Model fit Statistic				
	$\chi^2/df$	NFI	CFI	RMSEA	PCLOSE
Model 1a: Canadian co-op	2.72	.94	.96	.06	n.s.
Model 1b: Canadian non-co-op	3.63	.95	.96	.06	<.01
Model 1c: French co-op	.97	.94	.99	<.001	n.s.
Model 2: Multi-group model - unconstrained	1.96	.96	.98	.03	n.s.
Model 3: Multi-group model – weights constrained	1.90	.96	.98	.03	n.s.

Notes. Canadian non-co-op ( $n=655$ ); Canadian co-op ( $n=491$ ), French co-op ( $n=172$ )

### Construct Validity and Reliability

Construct validity was assessed by examining the convergent and discriminant validity as well as the composite reliability of each construct for each sample. Guidelines proposed by Fornell and Larcker (1981) and Hair, Black, Babin, and Anderson (2010) were followed. Results (Table 2) show that the four lifelong learning attributes have generally strong composite reliability and construct validity.

### Lifelong Learning Attributes and Co-op

ANOVAs were used to examine the differences in lifelong learning attributes between the samples. Country (Canada and France), years of study (1 to 2 and 3+), and program type (co-op and non-co-op) were used as independent variables. Table 3 shows the means and standard errors for each measure in the three samples.

TABLE 2: Composite Reliabilities, AVE, ASV, and Correlations of Latent Factors for Arts and Engineering Students

Factor	Canadian non-co-op			Canadian Co-op						French Co-op								
	CR	AVE	ASV	<i>r</i>			CR	AVE	ASV	<i>r</i>			CR	AVE	ASV	<i>r</i>		
				(1)	(2)	(3)				(1)	(2)	(3)				(1)	(2)	(3)
1) RES	.81	.59	.31	--			.81	.59	.31	--			.74	.49	.24	--		
2) INFSK	.81	.59	.28	.62	--		.80	.57	.24	.59	--		.83	.61	.23	.63	--	
3) REFL	.76	.62	.25	.55	.50	--	.72	.57	.20	.55	.44	--	.68	.52	.20	.45	.46	--
4) LOV	.91	.71	.21	.50	.45	.43	.89	.68	.19	.52	.43	.33	.89	.67	.12	.33	.27	.43

Notes. RES = resilience; INFSK = information seeking; REFL = self-reflection; LOV = love of learning; CR = composite reliability, AVE = average variance extracted, ASV = average shared variance;  $r$  = Pearson correlations (all significant at the  $p < .05$  level)

Results show that country has a significant influence on resilience,  $F(4, 1304) = 12.46, p < .001$ , and on reflection,  $F(4, 1304) = 17.5, p < .001$ . Year of study had no significant influence on any of the four attributes. Program type had a significant influence on love of learning  $F(4, 1304) = 4.68, p < .05$ , reflection  $F(4, 1304) = 4.20, p < .05$ , and information seeking,  $F(4, 1304) = 7.28, p < .01$ . The interaction effect between year of study and country on love of learning was also significant,  $F(4, 1304) = 7.83, p < .01$ .

TABLE 3: Standardized Means and Standard Errors for Lifelong Learning Attribute Scores for Co-op and Non-co-op Students in Three Samples

Lifelong Learning Attribute	Program					
	Canadian Non-co-op		Canadian Co-op		French Co-op	
	1-2 years	3+ years	1-2 years	3+ years	1-2 years	3+ years
Love of Learning	-.02 (.05)	.08 (.04)	-.16 (.06)	.01 (.04)	.24 (.15)	-.10 (.06)
Resilience	.10 (.04)	.07 (.03)	-.03 (.04)	.03 (.03)	-.24 (.11)	-.22 (.04)
Self-reflection	.04 (.04)	.10 (.03)	-.04 (.05)	.02 (.03)	-.34 (.12)	-.29 (.05)
Information Seeking	-.01 (.04)	.11 (.03)	-.09 (.05)	-.01 (.04)	-.13 (.13)	-.20 (.05)

Notes. Standardized means are listed and standard errors are listed in parentheses

## DISCUSSION

Many organizations (e.g., American Psychological Association and the American Medical Association) have identified lifelong learning as a valuable graduate attribute. At the same time, many employers use co-op programs to source existing talent in order to compensate for scarce resources to develop talent in-house (Gardner & Perry, 2011). These concomitant trends suggest that co-op could provide value by creating lifelong learners.

Lifelong learners' attributes remain difficult to measure, and the ways PSE contributes to their contribution is not well understood. This study developed and tested a brief self-report measure of students' lifelong learning attributes. Using factor analytic techniques, this study provided a 12-item instrument that purports to measure four interrelated attributes: love of learning, resilience, self-reflection, and information seeking. Results demonstrated that all attributes were modestly correlated across three samples, and have good construct validity.

Using ANOVAs, this study addressed whether students' lifelong learning attributes differ based on program of study, country, or year of study. Because the measures were self-reported, the results reflect students' *perceptions* of their own attributes. Results show that, relative to Canadian students, French co-op students reported having significantly lower resilience and self-reflection scores. Results also show that students in their first or second year do not significantly differ from students with three or more years of education in their reports of any lifelong learning attributes. Finally, relative to non-co-op students, co-op students report having significantly lower love of learning, reflection, and information seeking.

## LIMITATIONS AND FUTURE RESEARCH

This study represents a first attempt to conceptualize and measure lifelong learners' attributes. It may be the case that a fuller understanding of lifelong learning attributes could be developed through a more thorough and systematic investigation of the literature. Future research could expand our understanding of lifelong learning attributes with methodologies that allow for a richer exploration of its content. Interviews with experts (e.g., researchers, program administrators) and with students who have been identified as "lifelong learners" may enrich the way we describe and discuss lifelong learning and its attributes. Similarly, a more thorough scale-development procedure could augment our ability to measure lifelong learning attributes.

The data in this study were collected from students using self-report measures. Self-report measures have a wide number of limitations including cultural and perceptual biases. Interestingly, our study showed that co-op students perceive their lifelong learning attributes to be lower than their non-co-op peers. Our theoretical perspective regarding co-op and lifelong learning suggests otherwise. To rectify the discrepancy between theory

and observation, a multi-trait multi-method (MTMM) approach could be used. Future research could employ others, such as students' instructors, friends, and workplace supervisors, to assess students' lifelong learning attributes.

This study looked only at the surface level for differences between co-op and non-co-op students in their lifelong learning attributes. Future analyses could investigate these differences further. What is it about co-op (or other WIL arrangements) that influence lifelong learning attributes? Explanations may include the interview process and work experience that challenge students and build their resilience to future issues. However, there may be other factors at play. Additionally, why is it that co-op students perceive their own lifelong learning attributes as lower than their non-co-op peers? This question may inspire a series of studies that look at how closely related students' self-perceptions of lifelong learning attributes are to others' ratings.

Finally, this study was cross-sectional in nature. While we conclude that second-year and fourth-year students differ in two of four lifelong learning attributes, it is impossible to say that years of study is precisely the reason for this difference. Intuitively, increasing the number of years in education influences lifelong learning attributes, but future research could confirm this. Studies that use education as a sort of "treatment" in pre and post-test experimental designs, or in more through longitudinal designs will further elucidate the nature of change in students' lifelong learning attributes.

#### IMPLICATIONS FOR PRACTICE

Within institutions, we hope that this study advances programs' interest in and capacity for measuring students' lifelong learning attributes. The concept of lifelong learning is not new, however previous tools for measuring students' lifelong learning may have been inaccessible to many co-op departments. The instrument offered here (see Appendix) may help co-op program administrators in their attempts to measure students' lifelong learning, and to demonstrate their contribution to the development of lifelong learners.

Co-op practitioners could develop educational interventions to improve lifelong learning attributes and students' awareness of them. Instead of teaching discipline-specific knowledge, instructors should inspire in their students a love of learning. They should also teach build within students a capacity for learning, more generally. This understanding may change practice associated with teaching methods and evaluations.

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## APPENDIX - LIFELONG LEARNING INSTRUCTIONS AND ITEMS

The following items have to do with certain attributes (e.g., attitudes and behaviors) associated with your learning experiences. Think about yourself generally in situations when you are trying to learn something new. Please read each item carefully and consider **the extent to which you agree that you embody each attribute**. Please use the 1 to 5 scale below as reference for each item.

- 1=strongly disagree
- 2=disagree
- 3=neither disagree nor agree
- 4=agree
- 5=strongly agree

a. I love to learn

1-----2-----3-----4-----5

b. I am very good at seeking and retrieving information

1-----2-----3-----4-----5

c. I frequently take time to reflect on my thoughts

1-----2-----3-----4-----5

d. I can apply my knowledge across a variety of situations and problems

1-----2-----3-----4-----5

e. I enjoy learning very much

1-----2-----3-----4-----5

f. If I discover a need for information that I don't have, I know where to go to get it

1-----2-----3-----4-----5

g. I am usually aware of my thoughts

1-----2-----3-----4-----5

h. I adapt my thinking to the problems at hand

1-----2-----3-----4-----5

i. I am intrinsically motivated to learn

1-----2-----3-----4-----5

j. I often know where to look for solutions to complex problems

1-----2-----3-----4-----5

k. I can deal with the unexpected and solve problems as they arise

1-----2-----3-----4-----5

l. I'm looking forward to learning as long as I'm living

1-----2-----3-----4-----5

**Scoring instructions:** Love of learning:  $(a + e + i + l)/4$ , Information seeking:  $(b + f + j)/3$   
 Self-reflection:  $(c + g)/2$ , Resilience:  $(d + h + k)/3$

# Changing Trends in Cooperative and Work-Integrated Education Research

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## ABSTRACT

This paper reports the second stage of a research project exploring research trends. The preliminary findings of the first stage (Hoskyn & Zegwaard, 2015) shed light on some trends in research methods and identified that further investigation was required to understand other trends in research methods and to explore trends in publishing patterns.

This paper extends the document analysis of articles in the Asia-Pacific Journal of Cooperative Education (APJCE) and identifies an analysis looks at the extent to which multiple authors have worked together in research teams from different institutions and countries; year-by-year analysis of research trends in cooperative and work-integrated education (CWIE), and some issues raising from the wide-ranging array of methods now used.

## BACKGROUND

A preliminary review of research trends in the Asia-Pacific Journal of Cooperative Education (APJCE) suggested that a call by Coll and Chapman in 2000 for more qualitative research in Cooperative and Work-Integrated Education (CWIE) has been partially answered. A comparison of articles in the early years of the journal with more recent years showed that recently more research articles reported used mixed methods, combining the strengths of both qualitative and quantitative research approaches. The recent trend has been towards using an increasing range of combinations of research approaches, including multi-staged research projects (Hoskyn & Zegwaard, 2015). It demonstrates that researchers are willing to consider complex, multiple research approaches in the attempt to understand the inherently complex issues encountered in education. The range of combinations of research methods may also indicate the different disciplinary contexts within the researchers were undertaking the research work and perhaps also the range of educational backgrounds of co-op researchers.

Preliminary findings shed light on some research methods trends and identified that further review is required to understand other trends in the use of research methods and understand trends in publishing patterns.

This paper reports the second stage of the research project, which extended the document analysis undertaken in the first stage. In total, 225 articles from the APJCE were analyzed, of which 58% are research articles. It covers detailed analysis of the research in the intermediary years, along with demographic analysis of authors. This has demonstrated that the development of patterns in methods for CWIE research is more complex than at first thought and has shown the influence of context. The second stage of the project looks at the extent to which multiple authors have worked together in research teams from different disciplines, institutions and countries; research practices used creatively to answer CWIE problems and issues raising from the wide-ranging array of methods now used and year- by- year at research trends.

The implications arising from this phase of research demonstrate the collaborative nature of the CWIE community; progress that can be made in an environment of stable research funding and recommendations for authors reporting research in a journal such as APJCE.

## METHODS

The document analysis undertaken in the first phase of this project was extended to include 2014 And 2015 and the collection of a limited demographic data of the authors of articles published in the APJCE. The analysis was undertaken by examining each article in APJCE from its inception in 2000 to end of 2015 and recording the result for number of authors, number of institutions involved, country of the authors, methodology and research approach; data collection method; method of analysis; and the outcomes of the research.

If an article was deemed a non-research article, this was noted and only the information about authors was collected. In total, 225 articles were analyzed of which 130 (58%) are research articles. The proportion of research articles in recent years was slightly reduced by the 2014 special issue on assessment, which consisted entirely of conceptual or theoretical articles.

A description of the type of data collected from each article is given in Table 1.

TABLE 1: Data collected from each journal article identified as a research article

Data collected	Description of data collected
Topic or area of research	A few words taken from the heading to indicate the general area of research
Number of authors	The number of authors listed
Number of institutions	The number of institutions from which the authors came
Countries involved	The names of the countries in which the authors work
Stated methodology or research approach	The methodology or approach as described by the authors of the journal articles, if given
Methodology as identified by data collector *	Three broad groups were used. Where possible the stated methodology was categorized into one of three broad groupings: Qualitative; quantitative or mixed methods.
Number of stages of data collection*	This data was assessed by the author of this paper using the following guidelines: in a longitudinal study, the number of times data was collected from participants; in a multi-method study the number of groups from which data was collected and/or the number of data collection methods used.
Data collection methods	The name of each type of data collection method/s used.
Method of analysis	If an analysis method was described by the authors, this was recorded, using the terminology used by the author/s of the journal article. For statistical analysis, the type of statistics used in the findings was noted.
Part of a larger study or linked to other articles	Whether the study was part of a larger project or linked to other articles.
Outcomes*	As determined by the author of this paper. Coded as evaluation & recommendation; effect of WIL; confirmation of benefits or practice.

\* indicates an assessment was required by the data collector. For all other variables the terminology as reported by the article author was recorded.

Document analysis is a systematic procedure for reviewing or evaluating documents: finding, selecting, appraising, and synthesizing data. The value of document analysis is that it can provide good quality data quickly and cost-effectively, and it enables cross-cultural and longitudinal analysis (Bowen, 2009; Bryman & Bell, 2011) appropriate for analyzing articles in APJCE. The potential weaknesses of document analysis had very little effect on this study, such as insufficient detail, low retrievability, and biased selectivity (Bowen, 2009). All articles were easily retrievable and examined. As articles in a refereed journal there was sufficient detail. The main limitation of the study was that of examining articles from only one journal and that for some years the number of articles were small. Therefore, care was needed in terms of generalizing about or interpreting trends.

## RESULTS

The key focus of analysis in the second stage of this project was the extent to which multiple authors have worked together in teams from different institutions and countries; year-by-year analysis of research practices. (Table 2).

### *Demographic Analysis of Authors*

The collaborative nature of the CWIE community was demonstrated by the analysis of authors, institutions, and countries. As shown in Table 2, multi-author articles are the norm with just over two-thirds of all articles attributed to two or more authors: 36% having two authors and 32% having three or more authors. From 2009 onwards, in every year there were articles with larger teams of five, six, or seven authors.

APJCE began in New Zealand and, as the name suggests, it was focused on the Asia-Pacific region. Whilst there is a predominance of Australasian work in the journal, a total of 24 countries are presented in the journal. The most prevalent were Australia (116 articles), New Zealand (54 articles), South Africa (15 articles), Canada (10 articles), United Kingdom (7 articles), Germany (6 articles), and United States of America (6 articles). The following countries are represented by one to three articles: Argentina, Bangladesh, Botswana, Finland, Ghana, Hong Kong India, Japan, Korea, Nigeria, Taiwan, Vietnam, Saudi Arabia, South Korea, Sweden, Thailand, and Togo.

The dominance of Australian work is noteworthy. Researchers in Australia have been contributing to the journal since the early days, however, from 2009/2010 the number of articles from Australia increased markedly.

It is also noteworthy from Table 2 that, whilst most articles (60%) emanate from authors based at the same institution, there has been a consistent level of cooperation over time. Multiple authorship has been the norm throughout the history of the journal. The level of cross institution has been fairly consistent with approximately 30% of articles involving people from multiple institutions. Ten percent of articles have involved authors from different countries, usually culturally diverse combinations of countries rather than neighboring countries such as Australia-New Zealand or Canada-USA.

TABLE 2: APJCE descriptive data of number of articles, research articles, research approach used, number of authors, institutions, and countries for each year since 2000.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of issues per year	1	2	2	2	2	2	2	2	2	3	3	3	4	4	4	4
Total number of articles	3	7	11	9	10	6	8	12	10	17	15	18	19	23	27	30
Number of research articles	1	2	6	6	3	4	5	7	5	10	5	8	10	17	17	24
Quantitative methods	1	2	4	3		1	1	1		5		3	3	4	7	8
Qualitative methods			2	3	2	1	2	4	5	4	5	3	5	7	7	9
Mixed methods						2	1	1		1		2	2	5	3	7
Other methods					1		1	1						1		
Number of authors per article																
1		4	6	3	1	2	4	3	6	7	6	5	4	8	3	11
2	3	1	1	4	5	4	3	7	1	4	2	8	6	6	15	10
3 or more		2	4	2	4		1	2	3	6	7	5	9	9	9	9
Average	1.7	1.9	2.0	1.7	2.3	1.3	1.6	1.5	2.1	2.2	2.4	1.9	2.5	2.2	2.0	2.0
Number of institutions per article																
1	3	6	7	4	6	3	6	10	8	12	12	13	12	15	19	20
2		1	3	5	3	3	2			2	1	4	7	7	5	7
3 or more			1		1			2	2	3	2	1		1	3	3
Average	1.7	1.3	1.4	1.2	1.5	1.3	1.3	1.5	1.6	1.5	1.5	1.3	1.1	1.2	1.3	1.3
Number of countries per year	1	4	5	4	5	3	5	7	6	6	4	4	9	6	9	7

### *Year-by-Year Analysis of Research Methods*

Coll and Chapman (2000) identified a need for greater use of qualitative methods in CWIE research. Hoskyn and Zegwaard (2015) demonstrated that this call had been answered by comparing research articles published from the period of 2000 to 2003 to the articles published in 2013. It has not, however, been an entirely linear progression. From 2000 to 2015, 130 research-only articles had been published in the APJCE. From Table 2, it can be seen that 45% employ qualitative methods, 33% quantitative methods, and 18% use mixed methods. The remaining articles have some other form of analysis (e.g., mapping). Over the history of the journal, it would seem that qualitative has begun to dominate over quantitative methods. However, there are other complex issues to consider when making this conclusion. There has been much variation in approaches over the past 15 years and, when considering any one year, it must be remembered that the number of articles was relatively small, therefore, care is needed when interpreting differences. Quantitative research methods dominated between 2000 and 2007, after which there was a shift to greater number of articles using qualitative approaches. However, 2005 showed the appearance of mixed methods which increased in 2015 to presented as a similar proportion to that of quantitative or qualitative approaches.

What has been stable over the years has been the use of multiple sources of data and the use of longitudinal data collection methods. What was noted during this study was the increasingly difficulty in identifying the number of stages of data collection. In the early years of the journal it was relatively easy to understand the research methods and stages of data collection from the abstract or methods section. Over time, with increasingly detailed and complex methods, it became more difficult to identify the number of stages of data collection and how the stages relate to each other.

One complication in identifying the method used tended to occur when the method section included a significant description of the educational context, such as a description of the course, module or program, as occurred in approximately 20% of articles in one of the recent volumes.

### DISCUSSION

There are several implications of this study in terms of identifying the collaborative nature of the CWIE research community; outcomes arising from a stable research funding regime and recommendations for authors reporting research for a journal.

The profile of researchers in terms of numbers of authors, institutions, and countries associated with articles demonstrates that the community has been collaborative in its research approach. Since the beginning of the journal, there were a significant number of articles with multiple authors from a range of countries. Authorship teams of six or seven authors began to emerge from 2008 onwards, mostly research teams from Australia. The increase in the number of article published by Australian authors was particularly evident, with several articles acknowledging the benefit of a grant or financial support. The development of a funding regime relevant to CWIE-type research in Australia seems to correlate to the increase of larger authorship teams of published articles, and clearly indicates the need of a stable and consistent funding regime for this type of research.

One concern of research articles published in recent years was the difficulty of easily identifying the number of stages for data collection and how the multiple stages of data collection (and the different methods used for this collection) fit together within one research study. With the increasing use of multiple data collection points and the trend towards more complex analyses, it was sometimes difficult to determine what methods had been used and why. The lack of immediate clarity of the research method could have implications for subsequent citations of the work. A reader is less likely to cite an article if they cannot easily establish from the abstract, keywords, or the early stages of a method section how the research work has been undertaken. An easily-read methods section should include a short introductory paragraph summing up the research method, with the succeeding paragraphs providing further details. The expectation of a clear, 'at-a-glance' description of the methods may possibly be the next trend in the journal. It may have been sufficient 20 years

ago to merely state that qualitative data had been analyzed, now the expectation is for a specific form of analysis be stated and described. With the increase in the rate at which new research is being produced, it should be expected that a reader can quickly and easily determine the precise combination and construction of a multiple design project.

In recent time, there has been an increasing need to explicitly indicate the ethical processes (and ethical approval). As identified by Hoskyn and Zegwaard (2015), in earlier editions of the journal the ethical data collection processes, especially for qualitative research methods, were mostly assumed. However, some of the limited explanations provided 10 years ago would not be acceptable now. It is now expected that ethical processes are explicitly stated and within the APJCE review process this is now a stand-alone item reviewers report on .

Another issue that has been prevalent, and is still evident in some recent articles, is the mingling of research methods with the educational context. This tends to make the research method less clear and difficult to identify. The descriptions of pedagogy or the delivery method of a course, module, or program for some research projects is important and needs to be covered, especially if the research includes analysis of the student work. However, this should be explicitly covered in a separate section rather than within the research method section.

## CONCLUSION

This paper built on the previous work of Hoskyn and Zegwaard (2015) which demonstrated the strengthening of the CWIE literature over the past 20 years, reflected in the growth experienced by APJCE and an increase in the number of qualitative research methods and mixed research methods used in recent published research articles in APJCE. Whilst the work reported here is limited to covering only one journal, with a dominant influence of one geographical location, the principles identified in the trends likely will be reflected elsewhere. The year-by-year analysis showed that trend of using multiple research methods has emerged slowly, however, increasingly consistent over the past 20 years. Whilst the nature of the research may have evolved, one consistent phenomenon throughout has remained encouragingly consistent, that is the collaborative nature of the CWIE research community.

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# Collaborating with WIL Stakeholders: Success Factors for Sustainable Relationships

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## ABSTRACT

WIL experiences rely heavily on the development of relationships between the university and key stakeholders; including industry, community organizations, and government. As participation in WIL is increasing in many programs and institutions the issues of scalability and sustainability become paramount, requiring processes and practices for effective collaborating and partnering. According to Mulvihill, Hart, Northmore, Wolff, and Pratt (2011, p. 11), "Each university must negotiate – and re-negotiate - the meaning, value and purpose of engagement with their communities if they are to ensure successful and sustainable partnerships in the long term".

The paper reports on Phase 1 & II of an action research project that aims to identify and evaluate critical success factors for industry/community engagement across different WIL sectors and contexts. Phase 1 involves reflection and review, beginning with an initial consultation with WIL practitioners in New Zealand and Australia. Two discussion forums were held where the groups were asked to reflect on what they considered were the critical success factors for sustainable WIL relationships. In addition, a literature review was undertaken to draw on good practice frameworks that can assist in addressing the challenges inherent in the engagement process (Arden, McLachlan, & Cooper, 2009; Fleming & Hickey, 2013; Garlic & Langworthy, 2008). These were examined for their relevance to WIL relationships.

A comparative analysis of the key themes emerging from the consultation and literature review; including communication, planning, resourcing, trust and commitment, are discussed. Key findings will inform subsequent cycles of the project, involving the development and evaluation of a sustainable relationship framework.

*Keywords: Work-integrated learning; sustainable relationships; partnerships; success factors; university- industry engagement*

## INTRODUCTION

WIL experiences rely heavily on the development of relationships between the university and industry as well as the community. In order for students to gain the full benefits of a WIL experience, the institution and students are reliant on the involvement of industry. Post-secondary education institutions require strong partnerships with employers in order to shape curriculum and program implementation (Van Rooijen, 2011). Furthermore, engagement with industry can help institutions and program administrators to identify the skills necessary for the work environment and determine relevant assessment criteria within a particular industry context (Hodges, 2011).

While industry members and program administrators exhibit a strong consensus upon the positive outcomes of WIL, there remains a discrepancy between the expectations of universities, industry, and society regarding the proper implementation of WIL programs (Pilgrim, 2012). It is important that this disconnection be addressed as industry engagement in higher education has been demonstrated to play a role in increasing student employability following graduation, and in enhancing professional practice within selected disciplines (Franz, 2008).

In a study that examined delivering WIL to large cohorts of students, Dickson and Kaider (2012), determined that one of the most difficult demands of implementing WIL programs is creating relationships with

industry. While reciprocity, efficiency, and legitimacy are key factors that have been found to motivate industry to be part of WIL, many relationships are built on personal connections (Fleming & Hickey, 2013). WIL relationships dependent on a personal connection within a workplace rather than a formal strategic agreement can create challenges for the long-term sustainability of WIL relationships.

As participation in WIL is increasing in many programs and institutions, the issues of scalability and sustainability become paramount, requiring processes and practices for establishing and maintaining strong relationships. According to Mulvihill, Hart, Northmore, Wolff, and Pratt (2011, p.11), "Each university must negotiate – and re-negotiate - the meaning, value and purpose of engagement with their communities if they are to ensure successful and sustainable partnerships in the long term".

The aim of this project was to identify critical success factors for industry/community engagement across different WIL sectors. Once identified, these success factors will be used to underpin development of a framework for sustainability. As part of the data collection, the following research questions are addressed:

1. What are the critical success factors of industry engagement in WIL across multiple contexts?
2. What are the existing engagement models/frameworks that could be applicable to WIL?
3. Which of these theoretical models/frameworks are most useful for addressing the challenges and complexity of contemporary contexts of WIL?

## METHODS

The approach used for this project was based upon the principles of action research. While there are a number of different models of action research, a generic definition that appears to capture the diversity is presented by Reason (1993, p.1268):

All models of action research suggests that inquiry engages in a cyclical process; problems are identified and questions asked, some form of action is designed and carried out, empirical and/or experiential data are gathered, and then in a reflective mode the experience is compared with the starting idea and questions.

In particular, the use of developmental action research (Cardno, 2003) was deemed appropriate for this project as it encouraged a participatory approach to problem solving and improving practice consistent with the collaborative philosophy of work-integrated learning.

The project is structured in three phases consistent with action research. The first phase was to reflect on and review current thoughts and opinions of the issue of critical success factors. The second phase (the action) will be to design a framework for sustainability. This will involve mini-cycles of reflection, feedback and re-design. The final phase is to evaluate the framework from the stakeholders' perspectives. The following methods and the data presented in this paper focuses on the initial phase of the project.

### *Phase 1: Reflect and Review*

A literature review to identify existing good practice of models of university-community engagement was the first stage of this phase of the research. These were examined for their relevance to WIL relationships. Document analysis of programs, practices and resources being used in universities was also used to identify existing frameworks and explore their appropriateness for addressing the challenges and complexity of contemporary WIL contexts.

The second stage in this initial phase involved consultation with practitioners from within the WIL community in New Zealand and Australia. Two discussion forums were held where the groups were asked to reflect on what they considered were the critical success factors for sustainable WIL relationships. The common themes from each forum were summarized. The data from the two forums were then compared and the overall summary is presented in the findings section of this paper.

## FINDINGS

This section reports the findings from phase one of the action research process (reflect and review). The findings were drawn from the two stages, literature review and document analysis as well as thematic analysis of the data collected from the discussion forums.

### *Critical Success Factors for Sustainable Partnerships Identified from the Literature*

As part of the review process it was important to acknowledge that while different models of work-integrated learning have a number of common elements, there are wide variations that may impact on the relationships that are formed. For example, in the Canadian model of cooperative education, students are hired and paid by employers to work four-months full-time for their organization. In other forms of WIL students are volunteering their time in an organization. The paid/unpaid difference can be significant in terms of the expectations of the partner organization. The complexity of managing stakeholder expectations is highlighted by Brown (2010), who contends that establishing effective organizational procedures and clear communication can assist in explicating realistic expectations. The variation among models led to an examination of the literature on partnerships from a number of different perspectives. Those areas included the literature on community/university engagement, on industry/university partnerships and lastly on industry-to-industry partnerships.

### *Community and University Engagement*

From the review of literature, a number of good practice frameworks were identified that addressed the challenges inherent in the engagement process (see Garlick & Langworthy, 2008; McCabe, Keast, & Brown, 2006; Mulvihill et al., 2011). In particular, the findings from the GraniteNet project identified thirteen key success factors, shown in Table 1, which may lead to an increase in the sustainable engagement of the greater community with post-secondary education institutions (Arden, McLachlan, & Cooper, 2009).

TABLE 1: Critical success factors for sustainable university-community engagement (Arden et al., 2009, pp.6-7).

<b>More Tangible Factors (Explicit)</b>	<b>Less Tangible Factors (Implicit)</b>
<ul style="list-style-type: none"> <li>• Written agreement (MOU/Contract)</li> <li>• Clear and agreed purpose to the relationship</li> <li>• Results orientated to meet community defined priorities</li> <li>• Demonstrated commitment of resources and leadership</li> <li>• Interdisciplinary (university) and broad community involvement</li> <li>• Demonstrated mutual benefit (university and community outcomes)</li> <li>• Ongoing evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of trust</li> <li>• A shared vision</li> <li>• Sharing of knowledge, expertise and resources</li> <li>• Commitment to learning</li> <li>• Acknowledgement and respect for 'insider' and 'outsider' roles, knowledge, expertise and perspectives</li> <li>• Effective communication</li> </ul>

These factors were divided up into explicit and implicit behaviors and attitudes, which can contribute to the development of sustainable engagement between the university and community.

### *Industry and University Partnerships*

The most traditional partnerships between universities and industry have been focused on research/innovation collaborations and there is considerable literature on this topic. As was the case with university and community partnerships, there is a great deal of overlap in the identification of key themes contributing towards the success of industry-university partnerships. According to Barnes, Pashby, and Gibbons (2006), there are eight universal success factors in university-industry partnerships including, mutual trust, commitment, flexibility, learning, continuity of personnel, universal success factors include mutual trust, commitment, good personal relationships, collaboration. A recent review of the literature (Ankrah & Omar, 2015) summarized the factors affecting university-industry collaboration as shown in Table 2. Based on a meta-analysis of the literature, they identified factors that contribute positively or negatively to the success of the partnership and have grouped them into seven main categories.

TABLE 2: Factors affecting university-industry collaborations (Ankrah & Omar, 2015, p.397).

<b>Main Categories</b>	
Capacity and Resources	<ul style="list-style-type: none"> <li>• Adequate resources (funding, human and facilities)</li> <li>• Incentive structures for university researchers</li> <li>• Recruitment and training of technology transfer staff</li> <li>• Capacity constraints of SMEs</li> </ul>
Legal issues, and Contractual Mechanisms	<ul style="list-style-type: none"> <li>• Inflexible university policies including intellectual property rights (IPR), patents, and licenses and contractual mechanisms</li> <li>• Treatment of confidential and proprietary information Moral responsibility versus legal restrictions (research on humans)</li> </ul>
Management and Organization Issues	<ul style="list-style-type: none"> <li>• Leadership/Top management commitment and support</li> <li>• Collaboration champion</li> <li>• Teamwork and flexibility to adapt</li> <li>• Communication</li> <li>• Mutual trust and commitment (and personal relationships)</li> <li>• Corporate stability</li> <li>• Project management</li> <li>• Organization culture (cultural differences between the world of academia and of industry)</li> <li>• Organization structure (university administrative structure and firm structure) — Firm size (size of organization)</li> <li>• Absorptive capacity</li> <li>• Skill and role of both university and industry boundary spanners</li> <li>• Human capital mobility/personnel exchange</li> </ul>
Issues Relating to the Technology	<ul style="list-style-type: none"> <li>• Nature of the technology/knowledge to be transferred (tacit or explicit; generic or specialized; academic rigor or industrial relevance)</li> </ul>
Political Issues	<ul style="list-style-type: none"> <li>• Policy/legislation/regulation to guide/support/encourage UIC (support such as tax credits, information networks and direct advisory assistance to industry)</li> </ul>
Social Issues	<ul style="list-style-type: none"> <li>• Enhancement in reputation/prestige</li> </ul>
Other Issues	<ul style="list-style-type: none"> <li>• Low level of awareness of university research capabilities</li> <li>• Use of intermediary (third party)</li> <li>• Risk of research</li> <li>• Cross-sector differences/similarities</li> <li>• Geographic proximity</li> </ul>

### *Industry to Industry Partnerships*

Within industry, companies often form partnerships for mutual strategic advantage. In addition to examining the literature for university/community and university/industry partnerships, we also reviewed research on the factors affecting industry to industry collaborations. Empirical studies of the factors affecting success in a vertical partnership, e.g., manufacturer and dealer report that coordination, commitment, trust, communication quality, information sharing, participation, joint problem solving and avoiding the use of smoothing over problems to be significant in predicting the success of the partnership (Mohr & Spekman, 1994; Monczka, Petersen, Handfield, & Ragatz, 1998).

### *Critical Success Factors Identified from the Discussion Forums*

The discussion forums identified a number of common themes that were consistent across different models of WIL that were represented by the participants. The key factors identified are summarized in Table 3.

TABLE 3: Key themes for sustainable WIL relationships

<b>Preparation</b>	Benefits, requirements, expectations and standards are provided. Procedures handbooks, (e.g., health & safety, what to do if something goes wrong). Informed, prepared and appropriate students (i.e., match industry needs).
<b>Expectations</b>	Informing, understanding and matching expectations
<b>Commitment</b>	Contracts, develop a sense of belonging, promote three-way partnership
<b>Communication</b>	Regular dialogue and engagement (face to face if possible). Clear points of contact.
<b>Recognition</b>	Acknowledge and reward industry involvement.
<b>Promotion</b>	Capture and showcase good practice
<b>Flexibility</b>	Alternative and innovative approaches, timing and requirements, avoid within and between university competition
<b>Mentoring</b>	Availability of support, professional development
<b>Relationship Management</b>	Responsive, nurture relationships, networking, manage multiple interfaces, appropriate timing of contact, seek feedback.

Phase II of the project involved an individual review of the findings by the researchers, followed by a dialogic process of collaborative critical reflection to discuss the relevance of the themes and the development of the draft framework, to summarize the success factors that contribute to sustainable WIL relationships. The key factors identified along with the initial design for a framework are discussed in the next section.

## DISCUSSION

Examining the critical success factors for sustainable partnerships identified in the literature as well as those collected through the consultation forum revealed a number of common themes. As shown in Figure 1, three main threads were identified that represented the overarching factors for sustainability: *compatibility, communication and commitment*.

In addition, nine factors significantly impacting the success of WIL partnerships were identified: learning, trust, recognition, coordination, flexibility, expectations, vision, reciprocity and reputation. Each of these nine critical success factors is connected to one or more of the three main threads.

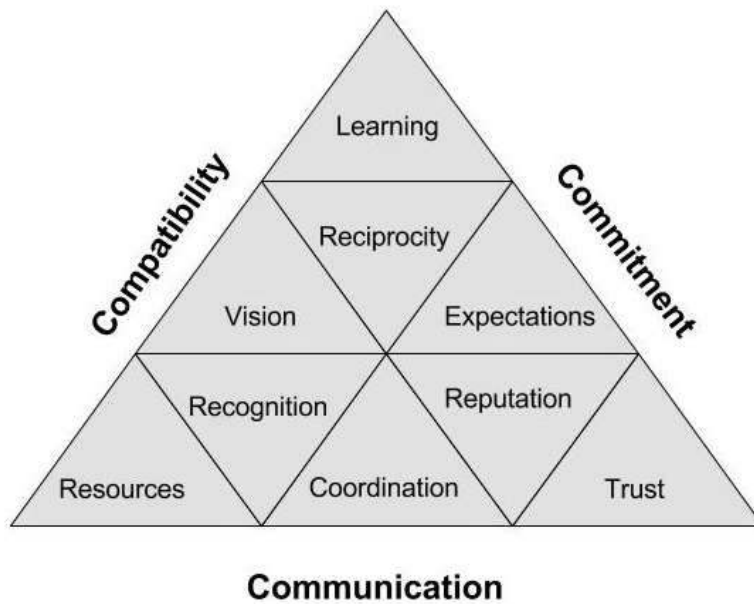


FIGURE 1: Sustainable Partnerships Framework for WIL

#### *Compatibility*

One of the key aspects to sustainable partnerships is that both partners benefit from the arrangement, that is, there is a reciprocity among them. There may be variation in the main purpose for partnering among stakeholders, however, there needs to be a shared vision of how each can accomplish his/her goals through the partnership. One of the key elements of compatibility is that all partners recognize the role of learning as the core of the experience for the student. For universities, this means providing good preparation and support for the students. For the partner organizations it means providing an environment where the students can learn. That said, it is unlikely that organizations will repeatedly partner with academic institutions to provide opportunities for students if they do not perceive benefits for their organization. Similarly, if institutions feel that students are not benefiting by working in particular organizations, it is unlikely they will want to continue partnering with those organizations. One of the factors that may affect perception of reciprocity is the reputation of the various partners. For organizations, if the university has a strong reputation in the areas of interest to them, it may increase their view of compatibility. Similarly, organizations with strong reputations for providing good experiences for students will increase the interest of the university in establishing a partnership. To ensure compatibility and success, expectations of the various partners need to be compared and considered.

#### *Commitment*

In WIL partnerships, commitment is a critical component of creating sustainable partnerships. Commitment develops as trust is established between partners. Through ongoing participation, partners will establish or build on a reputation, thereby increasing their respective commitment to the partnership. An additional factor that may increase the commitment of the partners is recognition of the value of the partnership expressed by the other partners. This might include a formal or informal 'thank you' from the university to the partner organizations, or it might be the partner organizations promoting the value of their partnership with the university to peer organizations. In the WIL context, commitment develops through ongoing coordination, which includes a substantial planning process and follows by delivering on what is promised. It is also important that there is attention and action on what is learned as part a continuous improvement process. As partners see how their objectives are met through the partnership, commitment is established.

One way of demonstrating commitment is for each of the partners to ensure the appropriate resources are allocated.

### Communication

References to successful partnerships, across all domains, include the importance of communication as a foundation of sustainable partnerships. Within the WIL context, communication is critical to ensure compatibility among partners and only through many forms of communication can commitment between partners occur. In fact, as we examine the nine success factors identified in this research, they all connect in some way to communication.

In establishing and coordinating the activities and support for WIL partnerships, communication is critical. In the initial stages of partner formation, it is important to assess whether there is a shared vision for the collaboration and whether appropriate resources can be dedicated. Communication between partners will lead to an understanding of one another's expectations. A continuous improvement process can be fostered through communication and from the partners learning from one another.

In nurturing an ongoing WIL partnership, communication is important in recognizing the contribution of the partners and in furthering the reputation of the partners. Ongoing communication will ensure the reciprocity of the partnership and demonstrate the flexibility of programs and organizations to adapt to one another's goals. Through this open and ongoing communication, trust among the partners will develop.

### NEXT STEPS FOR THE RESEARCH

Drawing on the findings from Phase I, the development of the framework proposed in Phase II is intended to provide evidence-based good practice guidelines to assist coordinators and practitioners, working in diverse contexts, to cope with the issues of scalability and sustainability of WIL programs. Consistent with an action research approach, Phase III of this research will involve the administration of a survey as well as interviews with key stakeholders; industry/community partners and university staff, to evaluate the efficacy of the framework and to identify further challenges and complexities of sustainable WIL relationships.

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# Work-Integrated Learning Students: What Impact do they have on Workplace Dynamics?

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## ABSTRACT

A sociocultural perspective of learning in the workplace considers that students undertaking work-integrated learning (WIL) experiences become enculturated into a community of practice. Interestingly, there has been no consideration whether WIL students create changes in the dynamics or development of this community of practice. While there have been numerous studies that have identified the benefits for industry of having a WIL student (such as extra labor, fresh ideas, etc.), very little (if any) research has focused on the impact placement students have on the workplace environment and, in particular, the workplace team. The aim of this research was to gain a better understanding of whether the presence of a WIL student caused any changes to workplace functionality and team dynamics. A case study methodology was used to explore the perspectives of workplace supervisors and the staff who worked alongside students (n=38), as well as students that had recently completed their placements within the sport and recreation industry (n=11). Data was collected using an online survey. Consistently, supervisors considered students to be part of the workplace team, where the impact they had on the way a team functioned was mostly positive. The study found that having a student in the team encouraged staff to reflect and examine their practice; to consider new ideas; to act as good role models; and to take on leadership or teaching roles. The findings here furthers our understanding of the impact (both positive and negative) a WIL student has on the community of practice, inform ways to maximize the benefits of work placement experiences to both students and industry partners, and further understand the extent WIL programs impact on all key stakeholders.

*Keywords: Enculturation, student impact on workplace, work-team dynamics*

## INTRODUCTION

Employers, and cooperative education (co-op) practitioners often (anecdotally) claim the positive impact work-integrated learning (WIL) students have. The benefits to employers or host organizations have been well researched and documented in a wide range of disciplines (see reviews by Braunstein, Takei, & Wang, 2011; Crump & Johnsson, 2011). In particular, in the context related to this paper (sport and recreation), research has identified that host organizations benefit from having WIL students as they provide extra labor, which improves productivity in an industry that relies heavily on volunteers (Fleming & Hickey, 2013). Research has also highlighted that some sport organizations value the opportunity to have students that are able to bring new knowledge, skills and 'fresh ideas' to the organization (Ferkins, 2002; Fleming & Hickey, 2013; Martin & Leberman, 2005). However, there is little literature on the extent that this occurs and what influence the student has on the workplace environment.

Drawing on sociocultural perspective of learning, when in the workplace the WIL student participates in activities that are considered to be authentic to the profession. In doing so they become immersed not only in the day-to-day tasks but also in the social context of the workplace, as they work alongside professionals in what can be described as a community of practice (Lave & Wenger, 1991). WIL students are able to learn

'what to do' and 'how to do' by observing the actions of their co-workers along with conversations with their workplace supervisors and colleagues (Bandura, 1977; Billett, 2001). It is expected that over the course of the experience WIL students will gradually move from legitimate peripheral participation to becoming full members of the community of practice (Eames & Bell, 2005; Lave & Wenger, 1991). The focus of these ideas is primarily on the enculturation of the 'newcomer' (i.e., the student), into an established community of practice (Eames & Bell, 2005). Interestingly, within the theorizing of student enculturation into a community of practice, there has been no consideration of whether the newcomer may, in fact, create changes in the dynamics or development of this community of practice.

The aim of this research was to gain a better understanding of whether the presence of a WIL student caused any changes to workplace dynamics. The research was guided by the following questions:

1. Does the presence of a work placement student cause changes (positively or negatively) to the workplace team and how it functions in the workplace?
2. Do these changes provide any advantages or detriments to the industry partner and the workplace-team dynamics?

Industry, by the very commercial nature, looks for direct and relevant benefits for engaging in certain activities. Past research has tended to focus on the benefits to employers or industry as a wider entity rather than exploring the direct impact on workplace teams. Furthering our understanding of the impact (both positive and negative) a WIL student may have on a specific community of practice, will help identify ways to maximize the benefits of WIL experiences not only for industry partners but for all key stakeholders.

## METHODS

The study employed a descriptive case study design (Merriam, 1998). Due to the highly contextualized nature of cooperative education programs (Coll & Chapman, 2000), a case study approach enabled the researchers to explore the perspectives of two key stakeholder groups (industry and students) within one specific context. Case study designs are useful when the focus is on a holistic understanding of issues and how they relate to particular groups or organizations (Gratton & Jones, 2010).

### *Case Description*

The specific context for the case under investigation was the sport and recreation industry. The participants invited into the study were sport or recreation workplace supervisors and workplace team members that had hosted a WIL student from an undergraduate sport and recreation degree in a New Zealand University. In addition university students that had undertaken their WIL experience with the respective organizations were also invited to participate.

### *Survey*

The survey was designed using agreement statements (using 10 point Likert scale responses, with 1=strongly disagree and 10=strongly agree) and open-ended questions. Key focus areas included: whether the student was considered to be part of the workplace team; the impact of the student on the way the team functioned; the challenges created by having a student in the team; the benefits of having a student in the team. The survey was administered using an online survey software package (SurveyMonkey). The survey was analyzed using weighted averages (WA) for the Likert scale responses. The number of responses, at each point on the scale was multiplied by the weighting (1 for strongly disagree through to 10 for strongly agree) and then the average was calculated. Thematic analysis (Braun & Clarke, 2006) was used for the qualitative responses and representative quotes are presented in the findings. The responses were coded 'W' for workplace and 'S' for student participants.

## Participants

The selection criteria included: that workplace supervisors must have had a minimum of one full year of involvement with WIL in the context of sport and recreation; and the workplace team members had some involvement with a student in the workplace. For the student participants, the criteria were that they had completed at least 350 hours of work placement within one sport or recreation organization as part of their undergraduate degree. Thirty-eight workplace responses (response rate 48%) were received for the online survey. The workplace participants were from a range of sport and recreation organizations, including not-for profit organizations (e.g., national or regional sports organizations, or sports clubs 44%), and schools (sports departments, physical education departments, or sports academies, 39%). Over half of the workplace participants had supervised WIL students for at least 5 years and the majority supervised only one WIL student at a time. Most of the workplace participants (84%) were involved in placement set up (negotiated learning contracts, work activities, etc.), direct supervision as well as working with the WIL student as a colleague. There were 13 student responses to the online survey, of which 11 completed the whole survey (response rate 16%). All students undertook their placement part-time (as per the structure of the WIL experience for the degree). Most of the students were unpaid (58%), while the rest received some payment or reimbursements.

The study was approved through the university ethics committee. Particular attention was taken with minimizing any potential for implicit coercion of the student participants during recruitment. Participants completed the survey, anonymously.

## FINDINGS

The analysis focused on two key themes that will be presented in this section: sense of belonging; and the impact on the workplace team.

The participant responses to the scaled questions indicated that there was a shared expectation from both workplace and student participants that a WIL student would be *part of the workplace team* (WA workplace = 9.21, student = 9.18). Workplace participants responded that students *fitted in well with the team* (WA = 8.3) and *worked well with others in the team* (WA=8.64). The students were also positive in their views that they *felt part of the workplace* (WA=9.45). Most students indicated they felt more *like a work colleague than a student* (WA=7.82), and that *they were supported by others in the team* (WA= 8.82) and did not feel isolated. The workplace participants also shared these views.

The majority of workplace participants acknowledged that the student changed the way the team functioned and, in most cases, in a positive way. It was perceived that students had an impact on the overall culture of the team by, “creating a different dynamic which is refreshing” (W35), or “vibrancy to the team” (W33). Students also changed team functioning through, “adding new perspectives” (W30) and, “challenging their ideas and providing them with new ideas and ways of doing things” (W26). These views were also consistent with the students perspectives. For example as one student commented, “I was able to challenge their ideas as well and that got them thinking” (S1). Most students also felt they changed the way the team functioned in a positive way (WA=7.09). The following was a typical student response:

I feel that I was able to bring a new perspective to the organization especially coming from the outside. I was able to share new ideas and knowledge from university because in the sports industry research is always growing and the sector is always changing. The organization was also always in need for extra help, and I was happy to put my hand up. Without the students the organization I was in would not have been able to be as successful as they were. (S8)

Interestingly, it was identified that some staff members changed their actions because of having a student around. For example, in one workplace it was noted that having a WIL student motivated staff to, “create a positive working environment” (W13). Another workplace commented, “the team raises the standard as to be a good example for the student” (W16). Having a student encouraged staff to examine their own practice and, “it does make us all reflect on how we do things when we have to explain them to a student” (W36).

Similar comments, from other workplaces, highlighted that a placement student encouraged staff, “to be more mindful about what and why they do things” (W30) and, “challenges us to think about are we doing things the best way we can” (W32). Students also shared similar views, for example:

I think it challenged them in a good way and encouraged them to look at things differently. It also challenged them in terms of students coming in from the outside and identifying weakness and inefficiencies (S8).

Some staff had the opportunity to take on additional responsibilities as they took on a role of training a student. As one student highlighted:

It was a great stepping stone for them to train someone who would hopefully fulfil an employment position at the completion... It gave many staff an opportunity to teach and role model certain skills, also explaining the reasons why they do things to assist my development. (S10)

Only a few of the workplace participants considered that there was no impact on the way the team functioned. Neutral responses included: “The staff maintain their responsibilities regardless of having a coop student present” (W23); “We don’t need to change the way we operate but would be open to this if a student found a better or more effective and efficient way of doing things” (W29); “No, our systems are in place and the student becomes part of the system” (W11). It was also acknowledged that the impact on the team was dependent on the attitude and commitment of the student, “if the student is proactive they contribute in a positive way” (W15). In some workplaces the impact of having a student was thought to be similar to (or no different from) having a new staff member in the team. Like new staff, placement students required initial support along with access to appropriate resources and space.

Workload implications for the team were clearly acknowledged. It was considered important that staff needed to have enough time to be able to manage the activities of the student as well as give appropriate feedback. For example, one workplace participant commented:

Having a placement student can sometime slow down some areas in which we operate as the team supervisor needs to take the time to explain/plan etc. However, the benefits of having students, short and long term, outweighs this and we see the importance of developing students especially in our area of work. (W1)

The importance of the time required to provide support for students was also acknowledged and evident in this response:

Students require a lot of support when they start and need support and supervision throughout the placement period. It is important to spend the time and allow students to learn and become independent workers. (W19)

For other workplaces, having a WIL student had a positive impact on the workload of the team. As highlighted by this participant, “being a small organization it brings in an additional keen human resource that enables additional outcomes to be achieved” (W32). Another commented, that placement students, “take pressure off the department throughout the busiest times of the year” (W29). Yet, the ability of the student was also considered to be a factor that affected workload of staff. As one workplace participant commented:

If the level of competency of the student is too low this creates pressure on the staff and often frustration. On the other side of that, if the student is good, this creates positive challenges of pushing the organization to working better. (W20)

Students were mindful of the workload impact that they created for some of their team members. For example, as one student responded:

Sometimes I felt they had to cater for my needs and wants which I personally felt could have been a hindrance on those I work with as it increased their demands as workers (which they were not getting paid extra for). (S3)

However, generally students felt that after the initial period they were more than able to contribute in a way that created benefits to the overall workload of the team.

## DISCUSSION AND CONCLUSIONS

Workplaces that hosted WIL students clearly expected that their role was to create an environment where the student was considered to be part of the team. Students expected to feel that they belonged and believed that they could make a contribution to the way the team functioned. These views support the importance of the WIL student being part of the workplace community of practice (WCOP), rather than being considered as an 'outsider'. Being a member of the WCOP students then have the opportunity to experience the authentic activities and learn about the roles that are part of being a professional in this WCOP. In doing so, students are more likely to be able to develop their own professional identities.

The study has clearly shown that it is believed that the 'newcomer' (WIL student) does, in fact, create changes in the dynamics of the WCOP. For many workplaces, having a WIL student in the team changed the actions of the team members. In particular, working with a student encouraged staff to reflect and examine their own practice. In some cases staff were challenged to justify how and what they did, providing opportunities for staff to consider (and students to share) new ideas and different ways of doing things. The culture and dynamics of the team benefited when students brought their energy and enthusiasm into the workplace. Staff also responded to having a student around by trying to create a positive workplace environment that then benefits the team as a whole.

The study also found that having a student as part of the team could provide opportunities for workplace staff to take on leadership or teaching roles that enhanced the professional development of the staff member involved and potentially the WCOP. In order for students to really understand what it is to be a professional in the sport and recreation industry, they need to be exposed to good role models. In some workplaces, the impact of having a student around encouraged staff to ensure that they were modelling 'good practice'. However, students need to be aware that this is not always the case and they need to reflect critically on what they observe and to take opportunities themselves to be model good practice and contribute towards improving practice.

The impact of a WIL student on the workload of the team was for many participants a positive benefit of being part of WIL. In particular, the smaller organizations valued the additional contribution that the students could make to their outcomes. For some organizations bringing a student into the team helped them manage the 'busy times' or enabled them to take on additional work. These findings are consistent with previous work in this context (Fleming & Hickey, 2013). While the time needed to manage and support the student was acknowledged, in most cases the benefits were considered to outweigh the additional workload required. As the study recruited workplace participants that were already involved in WIL, a potential bias to these findings needs to be acknowledged. It was also identified that if the ability or attitude of the student was poor this can create an overall negative impact on the workload of the team.

Overall, the findings here begin to further our understanding of the impact a WIL student has on the workplace community of practice. It can be concluded that a WIL student, as a 'newcomer' can and does create changes to the culture and dynamics of the workplace in a positive way. These findings add another dimension to the current literature on socio-cultural perspectives of learning in WIL.

This study also begins to inform ways to maximize the benefits of work placement experiences to both students and industry partners, and further understand the extent WIL programs impact on all key stakeholders. Further planned research will expand across a number of different discipline contexts and WIL models.

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# The Development of a Comparative Matrix of Forms of Work-Integrated Learning and Work-Integrated Education (WIL/WIE) within the Province of BC, Canada

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## INTRODUCTION

There is growing interest by many to better connect students and their learning to the world of work. As a result, a variety of work-integrated learning (WIL) and work-integrated education (WIE) programs are being added to traditional post-secondary education (PSE) offerings. While this diversity provides an exciting learning array for students, it can also create confusion when it comes to uniquely describing each model of WIL/WIE. A better understanding of WIL/WIE parameters and attributes is needed to inform discussions between and among key stakeholders including students, institutions, employers, and sometimes governments. Without such, the potential for developing and promoting appropriate offerings, conducting meaningful research, collecting data, developing quality standards, and assessing impact is limited. To address this, the Accountability Council for Co-operative Education in British Columbia (ACCE-BC), Canada struck a working group to research all forms of WIL/WIE in provincial PSE institutions and develop a tool to help provide clarity. Over an 18-month period in 2014-15, this group representing eight institutions (technical institutes, colleges, and universities in BC) and a Ministry of Advanced Education representative researched, consulted and debated such a framework. The result was the development of a matrix of various forms of WIL that allows for comparing and contrasting across described attributes.

This paper outlines the theory that underpins this Matrix, describes the collaborative research method used, proposes shared terminology, and discusses the attributes that form the basis for comparison. We also identify benefits that this matrix has already afforded the WIL community of practice throughout BC, discuss some limitations of the tool, and explore possibilities for its development beyond British Columbia.

## OVERVIEW OF ACCE, MEMBERSHIP AND MANDATE

The Accountability Council for Co-operative Education in British Columbia is an independent council formed in 2003 which is accountable to key cooperative education stakeholders such as government, educational institutions, employers and students. The Council is comprised of one member, appointed by their president, from each of the 15 public post-secondary cooperative education institutions in BC as well as a representative from the Ministry of Advanced Education. The Council's mandate serves a number of purposes that includes acting as the provincial voice of cooperative education to the BC government. As issues and opportunities arise, various ad hoc working groups are formed within ACCE to more deeply deliberate, research, and review issues of interest. The results are then shared with the Council and other key stakeholders as appropriate. It was within this context that the Comparative Matrix working group was established.

## THEORETICAL CONTEXT FOR WIL FRAMEWORK

In order to develop a comprehensive understanding of all forms of work-integrated learning/education in BC post-secondary institutions, the working group determined that the first step was to ground their exploration in experiential learning theory, the foundation for work-integrated learning. Experiential learning, based on the philosophy of John Dewey, is a model of learning where problem-solving and cognitive skills are developed through the application of theory to problems in relevant settings (Dewey, 1938). Boud, Cohen, and Walker (2000) developed the following five propositions about experiential learning: 1) experience is the foundation of, and stimulus for all learning; 2) learners actively construct their own experience; 3) learning is holistic; 4) Learning is socially and culturally constructed; and 5) learning is influenced by the socio-emotional context in which it is situated (Boud, Cohen, & Walker, 2000). Anderson et al (2000) added to this that experiential learners recognize and build upon their prior experiences and through continual reflection, transform their experiences into deeper understandings of what they know, believe, and can do (Anderson, Greeno, Reder, & Simon, 2000).

Experiential education programs are those based on the principles and perspectives of experiential learning. Andresen, Boud, and Cohen (2000) referred to experiential education as experience-based learning and suggested it includes the following elements that could be considered pedagogical: active use of all the learners' experiences; continued reflection; intentionality of design; facilitation; and assessment of learning outcomes. In the context of the development of the Matrix, experiential education programs in BC PSE were defined as those formal programs that have experience at their core and which are intentionally linked to the learner's academic and professional goals. These offerings are directed and monitored by the institution so as to develop the learner's knowledge, skills and values.

The key difference between experiential education and experiential learning is that the former is imbedded in an educational program with educational practices that support the experience before, during and after each learning event while the latter may occur without any intentional pedagogical processes. For example, students who backpack in Asia during their vacation may certainly engage in experiential learning, but not as an experiential education program such as a study abroad semester. For a study abroad, generally, there is preparation prior to students' departure, programming at their destination, learning assessments, reflective practices and intentional linkages to their academic programs. These pedagogical processes do not occur for the backpacker. Experiential education programs have instruction and scaffolding designed to encourage the linking of theory to practice, and the making of meaning from the experience (Vygotsky, 1986). Learning outcomes, imbedded in the curriculum are formally assessed (Andresen, Boud, & Cohen, 2000) and integrated back into both the student's new and continued learning and ideally, also to the educational program to allow for curricular renewal (Andresen et al., 2000).

Critical to realizing the benefits of experiential education is reflective practice (Moon, 2004; Schön, 1983, 1987). Fulsome reflection requires both thinking about past actions and on those actions occurring in the moment. By observing and reflecting on past actions, or reflection-on-action, learners can make explicit the tacit (or unconscious) knowledge that is implicit in those actions (Polyani, 1962; Schön, 1987). Reflection-in-action, that occurs while we are engaged in an action, allows for the questioning of the underlying assumptions and leads to learning that has the possibility of shaping future action (Schön, 1987). It is in preparing for future actions that learners can employ reflection-for-action, strategizing how to best proceed based on learning gained from reflection on the past (Schön, 1987).

As a result of this examination of experiential learning theory, the working group used the following table summarizing the key attributes that are components of quality experiential programs:



TABLE 1: Key aspects of experiential education

Experience	Curricular Integration	Student Outcomes	Reflection
Direct Involvement (hands-on)	Learning outcomes based in curriculum	Skills	Ongoing
Meaningful and Substantial	Assessment of learning outcomes	Knowledge	Meaningful
Linked to Curriculum	Learning is re-connected to the curriculum and program	Capacity to contribute	

Within the field of experiential education is the sub-category of work-integrated learning. Work-integrated education (WIL) is a term used to describe experiential education that connects a program of study to the workplace (Sattler, Wiggers, & Arnold, 2011). In Canada, according to Sattler et al., (2011) there are a variety of WIL program descriptions in use including: workplace learning, work-related learning, work-based learning, vocational learning, cooperative education, clinical education, practicum, fieldwork, internship, work experience, and more. As a result of this variation, the Higher Education Quality Council of Ontario (HEQCO) developed a typology based on the following categories:

- Systematic Training: The workplace is the central place of learning, for example apprenticeships.
- Structured Work Experience: Familiarization with the world of work is an objective within a postsecondary education program. This category includes field experience (labs, clinics etc.), mandatory professional practice (practica), cooperative education and internships.
- Institutional Partnerships: Postsecondary institution activities or programs to achieve industry/community goals. This category includes applied research projects and service learning.

In each of these types of experiences both the institution and the host organization has a role to play in identifying, mediating, and assessing the experiences in which the student is placed (Sattler et al., 2011).

While the ACCE working group found the HEQCO definition and categorization a helpful starting point, it was determined that further clarification and delineation between types of programming was required. First it was important to more specifically define work-integrated education (WIE) within the umbrella term of WIL and to distinguish those offerings that are delivered in partnership with employers and for which the workplace serves as a primary learning site. Recognizing that WIE programs undertake a pedagogical approach which includes curriculum and assessment is an important distinction from forms of WIL that do not have these components (McRae, 2015). Just as study abroad is substantially different from a backpacking trip, so too are structured work-integrated education programs such as cooperative education different from para-professional programs or job shadowing types of activities. While the latter can result in valuable learning in a workplace setting, the intentional curricular elements and linkages back to the academic course of study are not at the core of their design and in this sense the resultant learning is hit and miss, or unintentional.

The second challenge that the working group identified was the variety of WIL and WIE programs across our institutions. While previous attempts have been made to categorize these programs such as the Australian scoping study (Patrick, Peach, & Pocknee, 2009) and the taxonomy of WIL (Johnston, Drysdale, & Chiupka, 2013), these efforts did not enable easy comparisons among the various forms of WIE or WIL. Thus, the working group determined that a matrix that enables readers to compare and contrast various forms of WIL based upon stated attributes would advance the conversation significantly. It would allow for the various types of courses and programs to distinguish themselves relative to one another based upon their design as well as to indicate areas where programs converge. As the ACCE work group was comprised of cooperative

education leaders, and as the professional body for cooperative education in Canada, CAFCE, had well developed accreditation criteria for co-op, it was determined to use the CAFCE criteria as a starting point for the development of the attributes.

In Canada the traditional cooperative education model alternates periods of workplace learning between periods of academic learning with the transitions between learning settings negotiated and guided by cooperative education personnel in collaboration with workplace supervisors.

As in any experiential education program, WIE programs, such as co-op, follow recognized pedagogical practices with respect to curriculum design, instruction, scaffolding, assessment, reflection and integration. In Canada, co-op programs adhere to a set of guidelines established by the Canadian Association for Cooperative Education (CAFCE) where the curriculum design alternates periods in the classroom with periods in the workplace. The work period is full-time, paid and in Canada comprises a minimum of 30% of the total time for the academic program such that in a four-year degree at least one year of work is required (Canadian Association for Co-operative Education, 2006). Recently, the guidelines have been revised to allow the work component of any program to be 25% if that program is of two years duration or less (Canadian Association for Co-operative Education, 2015).

Co-op programs also deliver curriculum to prepare students for their work terms and to help them appreciate and connect their program of study to the world of work. During each work experience, students receive scaffolding from faculty and staff through work term contact and work site visits to support the students' learning assessment and adjustment to the workplace environment (Vygotsky, 1986). Reflection is required and is often embedded in site visit protocols, work term reports, and journal or other reflection-on-action devices (Schön, 1987). Integration of the learning is attempted through practices such as post-work term debriefing sessions and poster sessions and the ongoing encouragement that students reflect on their learning and implications for their ongoing academic program, personal and career goals.

The standard structural components of co-op, i.e., a model where the work is paid, full-time, possibly credit bearing, possibly mandatory, and has a prescribed percentage of time in the workplace, provided the initial criteria for the comparative matrix. In addition to the co-op accreditation criteria, the working group selected key attributes of high impact experiential education programs as described in the literature. This included the addition of attributes such as capacity to contribute that, together with the accreditation criteria, formed the "y axis" of the Matrix. The working group then used this approach to determine all types of WIL and WIE across the British Columbia post-secondary sector.

The process for making these determinations involved each representative consulting with campus colleagues across discipline areas to identify forms of WIL and WIE. Each institutional inventory was brought forward to the working group during a number of consultations over the period of 18 months wherein definitions and attributes for the breadth of provincial PSE WIL and WIE programs were discussed, debated, and revised iteratively until agreement was reached. This resulted in a shared glossary of terms, definitions of programs and matrix mapping.

Each model was defined and mapped onto the matrix. An example of how co-op was used as a comparator can be found in table 2. In this table, two forms of WIE, a mandatory co-op program and curricular community service learning (CSL) are compared. Curricular CSL is service learning that is a required part of a credit-bearing course, as opposed to co-curricular service learning. The table clearly shows the similarities and differences between these two models, where the differences are related to salary, length of time in the experience and the percentage of time the experience requires of the student's program. While the differences are significant in terms of the program structures, it is also clear that the two models share many other important attributes around the experience, student outcomes, curriculum integration and reflection.

TABLE 2: Comparative matrix criteria completed for mandatory co-op compared to curricular community service learning (WIE)

Criteria (Based on theory and co-op structural components)	Cooperative Education (mandatory)	Community Service Learning (Curricular)
Experience		
Direct hands-on experience	✓	✓
Meaningful and substantial	✓	✓
Linked to Curriculum	✓	✓
Curriculum Integration		
Learning outcomes	✓	✓
Assessment by institution	✓	✓
Assessment by workplace	✓	✓
Integration back to curriculum	✓	✓
Student Outcomes		
Knowledge, skills attributes	✓	✓
Capacity to contribute	✓	✓
Reflection		
Formalized, ongoing	✓	✓
Structure (based on co-op criteria)		
Paid (salary, stipend, etc.)	✓	x
Academic credit bearing	✓	✓
Mandatory	✓	x
Full time (35+ hours/week)	✓	x
Proportion of time required for credential = 25% (two year program) or 30% (more than two year program)	✓	x

Table 3, shown below, compares mandatory co-op, a form of WIE, with co-curricular community service learning (CSL), a form of WIL. Here one can see how the matrix helps us differentiate WIE from WIL as the curricular intentionality and connections are missing in the co-curricular form of CSL. Furthermore, the matrix enables a better understanding of the components that would be expected for quality CSL pedagogy as defined by the working group. The full matrix showing all comparisons can be found at: <http://www.co-op.bc.ca/co-op-defined>

TABLE 3: Comparative matrix criteria completed for mandatory co-op compared to co-curricular community service learning (WIL)

Criteria (Based on theory and co-op structural components)	Cooperative Education (mandatory)	Community Service Learning (Co-Curricular)
Experience		
Direct hands-on experience	✓	✓
Meaningful and substantial	✓	✓
Linked to Curriculum	✓	x
Curriculum Integration		
Learning outcomes	✓	✓
Assessment by institution	✓	✓
Assessment by workplace	✓	✓
Integration back to curriculum	✓	x
Student Outcomes		
Knowledge, skills attributes	✓	✓
Capacity to contribute	✓	✓
Reflection		
Formalized, ongoing	✓	✓
Structure (based on co-op criteria)		
Paid (salary, stipend, etc.)	✓	x
Academic credit bearing	✓	x
Mandatory	✓	x
Full time (35+ hours/week)	✓	x
Proportion of time required for credential = 25% (two year program) or 30% (more than two year program)	✓	x

#### BENEFITS AND LIMITATIONS OF THE MATRIX

One of the greatest benefits the working group has realized from the development of the Matrix has come through the process itself. The eight institutions that participated in the project began conversations that had never previously occurred in the provincial post-secondary environment. It became clear what a diversity of programs and offerings exist in the WIL and WIE landscape, and overwhelmingly how limited the interaction is amongst many of the programs. The working group also discovered that the approach undertaken for the project was one that necessitated discussions about the different models to extend beyond simple definitions. By looking at comparator attributes, it is clear that there are many shared attributes amongst the various models and fewer differentiating attributes. This indicates that there is a lot of room for greater sharing of best practices, program materials, research, etc. across the various models.

One of the most significant outcomes of this exercise is the development of a proposed set of operational definitions for the various WIL/WIE models operating within the BC PSE system. Only with agreed upon definitions can advancing these experiential models be realized. The current conflation of terms and lack of shared lexicon often lead to confusion at even the most basic level of communications (marketing and promotion). Furthermore, the lack of shared definitions and terms render conducting research, assessment, and data collection extremely challenging as the results are often non-generalizable and/or invalid.

Finally, when the Matrix has been shared beyond BC it has garnered much praise as providing a great starting point for other provinces and countries - one that could be built upon through the addition of new models and/or attributes as contextually appropriate.

With respect to limitations of this tool, clearly it is currently limited by how many WIL/WIE models are included. While all participating institutions in BC have been included to date, there are many more institutions throughout the rest of Canada and beyond that may offer other models of work-integrated learning/education. A further limitation is the number and nature of the attributes selected. The rationale for the current attributes has been described, but as this Matrix evolves, there may be many good reasons to expand the list of attributes in order to compare and contrast across other important dimensions. Additionally the current Matrix simply indicates with a check or an "x", whether the particular WIL/WIE model being reviewed includes the attribute in question. This is not a terribly informative indicator as it fails to provide any information about the extent to which an attribute is present, the relative importance of that attribute to the model, or the quality of that attribute within the model. Any developments regarding indicators that would provide greater or more nuanced information would be a welcome addition. Finally, it could be a good "next step" to more formally link the Matrix to related work emerging from other groups such as in Australia, Ontario (HECQO) and BC Council for Articulation and Transfer (BCCAT).

As the experiential landscape is ever evolving it will be important for this Matrix to be continuously updated. Given its evolution as a voluntary project of the ACCE, there will need to be some thought regarding how this might be assured so that the Matrix does not become outdated or fail to reflect the environment it is intended to inform. The Matrix will only be useful to the extent that it is regularly populated by key players from member institutions. Through the developmental process it became very evident that most institutions do not have a centralized capacity with respect to managing issues around experiential education. As well, garnering institution-wide perspectives is more challenging at some institutions than others. Any discussions precipitated by this work that continue and evolve within and across institutions, would constitute a powerful legacy of this project.

## CONCLUSION

In conclusion, the ACCE-BC Matrix has already proven to be a useful tool for WIL leaders and practitioners across BC. Discussions have begun throughout Canada to develop a national matrix to enable institutions across the country to share understanding of these complex and important experiential education programs.

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# Bridging the Gap Between Industry and University for International Students Through Mentoring

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## ABSTRACT

RMIT University has implemented a suite of industry mentoring programs for RMIT students in Melbourne, Vietnam and Singapore since 2013. The programs aim to harness the expertise of the extensive RMIT alumni community, numbering 300,000 globally, to enhance students' employability through insights students gain through a mentoring experience. Program evaluations have identified positive outcomes from the mentoring experience as well as other secondary outcomes including students gaining work-integrated learning placements and employment from their mentoring connections. The largest Mentoring program is the Career Mentoring Program which was enhanced by implementing a software solution to both improve the interactions between mentoring pairs and to increase numbers resulting in 503 students participating in 2015. International students were overrepresented with 40 % participation compared to 15 % representation in the student population demonstrating international student's strong focus on gaining industry knowledge, experience and connections.

This paper focuses on the outcomes for the international students who participated in the Career Mentoring Program during 2015. Outcomes include high satisfaction with their mentoring experience and many benefiting from flow on networking and work experience opportunities. The mentoring program has resulted in greater engagement between industry and the university which is particularly important for international students who historically face challenges in accessing industry experience. Consequently, mentoring may provide a valuable mechanism to erode intractable barriers for international students in engaging with Australian industry. With international education such an important aspect of Australia's economy, the success of this program is significant if it contributes to meeting international student's demands for greater industry experience.

*Keywords: Mentoring, international students, work-integrated learning, career, industry engagement*

## BACKGROUND

Australia is one of the major global destinations for international students to study with over 500,000 international students studying in Australia annually (Australian Government). International students are Australia's largest services export contributing over \$16.3 billion to the Australian economy in 2013 -2014 as outlined in the Draft International Education Strategy (Australian Government 2015) as well as providing vast social and cultural benefits to Australian Society.

International students choose Australia as a destination for study based on a range of factors. Yet what is very clear is international student's great emphasis on the ability to work after graduation and that this is a major factor in making their decision (Blackmore et al., 2014). Gaining relevant work experience during their study is key to achieving that goal in an increasingly competitive labor market (Blackmore et al., 2014; Lawson, 2012). However, international students studying in Australia have been frustrated by inequitable access to industry experience generally and lower participation rates in work-integrated learning specifically for many years (Jackson & Greenwood 2015; Gribble 2014; Orrell, 2012). The WIL Report (Patrick et al., 2008), based on national consultation of key stakeholders across the country, identified access to WIL for

international students as an issue requiring urgent action in 2008 but little progress has been made since . This inability to access WIL is believed to stem from a range of challenges including employer concerns about visa restrictions, language issues, lack of cultural awareness and student related issues including lack of networks, unrealistic expectations and logistical issues (Patrick et al., 2008; Jackson & Greenwood, 2015; Gribble 2014). A range of strategies to overcome these challenges including leveraging alumni to provide WIL and mentoring and strategies to enhance industry partnerships to provide WIL have been suggested (Gribble, 2014).

The importance placed on the International Student Industry by the Australian Government is demonstrated by the current development of a National Strategy for International Education (Australian Government 2015) which will provide a blueprint to drive greater coordination and sustainable growth in international education. The draft policy highlights these current concerns for international students in the areas around enhancing employment outcomes for international students and highlights the importance of participation in work-integrated learning programs to achieve this goal.

At the same time there has been a growing emphasis nationally on ensuring that all Australian graduates are work-ready and to build mechanisms to enhance the link between tertiary education and industry to ensure graduates have the skills and experience needed for the graduate workforce. (Australian Workforce and productivity Agency, 2012; Ai Group, 2016). A recent initiative to enhance partnerships with Industry aimed at increasing opportunities for work-integrated learning is the development and adoption of the National Work Integrated Learning Strategy (ACEN, 2015). This strategy has been developed through a collaboration of major Australian Industry groups, Universities Australia and Australian Collaborative Education Networks. One of the approaches in this strategy focuses specifically on measures to increase international student participation including campaigns to raise employer awareness and to counteract barriers. State Governments such as the Victorian Government have also funded specific initiatives to increase international student's engagement with WIL as has the International Education Association of Australia developing guides for employers, students and universities (IEAA , 2014 )

RMIT is a global university with campuses in Australia and Vietnam and major student centers in other parts of Asia including a major centre in Singapore. RMIT has 75,000 students globally with 15 % of the student population being international students studying at Australian Campuses. Developing strategies to ensure that all RMIT students, but particularly international students, have access to industry experience in this national context is very important. Expanding mentoring programs is one avenue to achieve this with results from a study at Griffith University reporting that students “developed networks and contacts; understanding of employers’ expectations; knowledge about chosen profession; guidance with career choices“(Fowler and Muckert ,2004) from their mentoring experience.

#### OVERVIEW OF CAREER MENTORING PROGRAM

The Career Mentoring Program was piloted in 2013 utilizing the RMIT global alumni network with the aim of providing students with an opportunity to extend their networks and explore their career options with experienced professionals in their fields. The program partnered 83 students in 2013 and 240 in 2014. In 2015 the university invested in a cloud-based mentoring system or mentoring portal to maximize participation rates whilst improving participant engagement and experience. The mentoring software allowed students to self-select and then connect with their preferred mentor. It enabled students to choose a mentor best positioned to support their specific career goals including where they were located be it in Australia or elsewhere. The system also resulted in a significant scaling up of the program as manual processes were largely eliminated. The career mentoring program matched 503 students with mentors in 2015 with students seeing their mentor either face to face or using technology.



The career mentoring program involves:

- A structured 12 week mentoring experience with minimum of 3 meetings;
- Mentors and mentees undertaking an online preparation module and provision of materials to support their mentoring experience;
- A flexible program with a rolling intake across the year;
- A mentoring system which provides a range of prompts to facilitate the mentoring process;
- Both undergraduate and post-graduate students;
- Mentors were based 78 % in Australia and 22 % outside Australia mainly in Asia;
- Mentors are predominantly alumni ( 82.5 % ) and are recruited through an active partnership with the University alumni office.

#### INTERNATIONAL STUDENT INVOLVEMENT IN THE PROGRAM

In 2015, 202 International students participated in the career mentoring program from a broad range of disciplines across the university. International students were overrepresented in the program with 40% of the students participating being international students compared to 15 % of the student population. Of the international students participating 70% were postgraduate students and 30% undergraduate. International students participating in the program were from a range of countries including India (29%), China (14%), Malaysia (11%), Singapore (5%), Sri Lanka (5%) with 27% from a range of other countries predominantly in Asia.



FIGURE 1: International students : Country of origin ( N=202 )

The Mentoring system has details of over 480 mentors based in and outside Australia. Over 82% of all mentors identified as RMIT alumni. There was no preference in the alumni community to partner either an international or domestic student as both were mentored at exactly the same rate.

Of the 202 international students in the career mentoring program in 2015, 163 (81%) selected Australian based mentor rather than a mentor in their home country or elsewhere. The mentoring system is able to provide detailed data on level of engagement between mentoring pairs. Program statistics indicate that mentors of international students were more engaged and active within the mentoring system sending 15% more messages and 21% more logins to the system than mentors of domestic students

## EVALUATION OF THE CAREER MENTORING PROGRAM

### *Methodology*

In the career mentoring program, both students and mentors are surveyed mid-way and at the end of their mentoring partnerships. Data for this study is derived from the end of partnership survey to students within the career mentoring program which gauged student satisfaction with their mentoring experience and impact on career direction. The survey was administered using the mentoring system and involved 22 questions. A total of 69 students filled out the survey with 26 identifying as international students.

### *Evaluation Results*

TABLE 1: Outcomes of end of program Evaluation. Student's responses ( N=69)

<b>Mentoring Experience</b>	<b>International Students</b>	<b>All Students</b>
Students were satisfied or very satisfied with their mentoring partnership	77%	87%
Students were satisfied or very satisfied with the overall program experience	85%	87%
Students felt their mentor was responsive and engaged	96%	94%
Students have a more positive outlook about their future after discussions with their mentor	73%	80%
Students likely to positively change their career preference/or direction as a result of discussions with their mentors	42%	36%
Students who would recommend the mentoring program to other students	92%	93%

All students including International students were satisfied or very satisfied with the overall mentoring program experience (85%, 87%) and had high levels of recommending the program to their friends (92%, 93%). Both international and all students had similar levels of engagement and responsiveness from their mentors (96%, 94%). International students appeared to have a slightly less positive outlook about their future - 73% compared to 80% all students with slightly more international students making changes to their career preference or direction resulting from the mentoring experience (42% compared to 36%).

TABLE 2: Opportunities flowing from mentoring experiences

<b>Additional Opportunities</b>	<b>International Students</b>	<b>All Students</b>
Students gained employment, a volunteer opportunity, paid work experience or an internship	13%	19%
Mentors referred students to contacts within their professional networks and/or invited them to industry networking events	35%	38%
Mentors invited students for job shadowing and/or workplace visits	16%	20%

In addition to the benefits students derive from the mentoring partnership itself, students were offered a range of additional opportunities as a result of the mentoring which are outlined in the table below. This may under represent the additional opportunities flowing to students as the data does not include either indirect opportunities, for example, referrals to other colleagues nor opportunities that may arise sometime after the mentoring arrangement is completed.

## DISCUSSION

Research indicating International Students desire to gain industry experience and networks is supported by participation in this mentoring program with an over representation of international students compared to domestic students. Evaluation results indicate that the career mentoring program at RMIT was very successful with outcomes consistent with other research on mentoring and with similar high levels of satisfaction with the program overall and of students recommending the program to friends by both International and domestic students. The increased activity levels of international students during the program also would appear to reflect their greater keenness, compared to domestic students, for industry connections.

Australian based mentors constituted 81% of international student's mentors. As students themselves select their mentor in the mentoring system this indicates a strong wish for Australian based connections by international students. This is consistent with research that shows international student's desire to obtain work in Australia post-graduation. Only a very small number of international students sought mentors from their home country or elsewhere.

For their part, mentors accepted both international and domestic students as mentees at approximately the same rate with large numbers of Australian based mentors willing to mentor international students. International students rated their mentors as responsive and engaged at a slightly higher rate (96%) than all students (94%). This indicates that the mentors, predominantly Australian based and mainly alumni, are active in meeting student's expectations of the mentoring partnership. Given the known challenges in linking international students with Australian industry this is a somewhat surprising outcome. It may reflect the mentors wish to support the university as an alumnus or perhaps that mentoring a student requires a lower level of commitment than other forms of engagement like WIL placements or projects. The low commitment required may therefore result in mentors being more willing to engage with international students than would otherwise be the case.

Opportunities flowing to students beyond the mentoring relationship itself included referrals and professional networking opportunities, work site visits and job shadowing, employment and paid internships and volunteering opportunities. Although these opportunities were not provided at the same rate for international students as for domestic students, international students did gain a range of opportunities through their mentoring relationship that perhaps may not have occurred otherwise.

Therefore it appears likely that the low level commitment of a mentoring experience has provided some mentors enough exposure to talented International students to prompt some Australian based mentors to provide further WIL, employment and opportunities to international students. It may also have provided students an opportunity to inform employers on visa arrangements and the ability of international students to live and work in Australia after graduation that may have impacted on employers views.

Mentoring or other low commitment mechanisms to engage with international students may therefore provide an opportunity to overcome one of the intractable barriers for international students in engaging with the Australian industry by providing opportunities to network with industry professionals.

Our evaluation of the program did not probe the mentor motivations for participation nor the outcomes for mentors so it is hard to be certain on exactly what is occurring during the mentoring partnership. However, what we do know from our program evaluation is that the RMIT mentoring program is successfully connecting international students to Australian based mentors in a structured way that guides and prepares both students and mentors to maximize their engagement. The program is gaining high levels of satisfaction from international students with many receiving additional opportunities for engagement with the Australian workplace and industry networks resulting from mentoring partnerships with Australian based mentors.

## CONCLUSION AND IMPLICATIONS

International Education is a key industry in Australia with many International students expecting that Australian Education would afford opportunities to gain work in Australia after graduation. To achieve this, work experience, particularly work-integrated learning related to their discipline, is a key mechanism to enhance their work-readiness and make them competitive in an increasingly challenging graduate job market. Many international students are frustrated in achieving this with barriers both longstanding and well documented to gaining this experience. RMIT's mentoring program has successfully partnered international students in significant numbers with RMIT Australian based mentors, predominantly RMIT alumni. Resulting from these mentoring partnerships, various opportunities around WIL, employment, professional networks and job shadowing are being offered to International students. Programs that require a low level of time and commitment by employers, such as mentoring, may provide the means to engage more Australian employers with international students. This engagement then provides the opportunity for employers to discover international student's capabilities, gain information about visa arrangements and go some way to overcoming employer concerns about international students. Mentoring also enables students to develop local networks, showcase their skills and demonstrate to employers the benefits of engaging with International students. Further research into the motivations and experiences of mentors may provide further information on how best to expand this strategy moving forward to the benefit of both international students and Australian employers.

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# Developing a CWIE Standards Framework and Implementation Strategy: A Global Perspective

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## INTRODUCTION

CWIE programs across the globe are concerned with providing quality programs. This concern is in response to National quality assurance bodies, and as a result of being required to demonstrate that resources being spent on CWIE programs are being effectively utilized towards the attainment of institutional, employer and student goals. Quality programs can be best served with a quality standards framework. At a recent gathering of CWIE practitioners and researchers at the Thailand Planning Institute conducted by WACE in December 2015 it was determined, according to those in attendance, no such quality standards framework existed. It was also agreed that a quality standards framework for CWIE programs globally could be a very valuable resource and guide to establishing, developing, and accrediting quality CWIE programs. In an effort to remedy this lack of framework, a focus group comprised of practitioners and researchers of CWIE programs in Thailand, South Africa, Namibia and Canada came together to develop such a framework using Activity Theory as a theoretical underpinning (Engeström, 1987, 2009; McRae, 2015).

## LITERATURE REVIEW

Activity theory (also known as socio-cultural or cultural-historical activity theory) is an evolution of the work of Vygotsky (Roth & Lee, 2007). Vygotsky identified a zone of proximal development within which the learner is supported by the educator (Vygotsky, 1986). Vygotsky's student Leont'ev (1978) concluded that socio-cultural and historical mediators, in addition to language, were important to learning (Leont'ev, 1978; Roth & Lee, 2007). Activity theory was conceptualized by Engeström (1987) as a way to explicate learning as an outcome of the dynamic interplay between mediators, embedded within a socio-cultural and historical system (Weber, 2003). In this system are seven considerations. First is the overall activity of interest. The object, or objective of the activity, is why the activity is taking place and what will change as a result of the activity (Marken, 2006). In the case of CWIE this can be considered the work term project. The subject represents those who are carrying out the activity such as the student and the student's supervisor. Mediators within the system are: tools, rules, community and division of labor. Tools, the means by which the subject carries out the activity, mediate the subject-object relation and are "artefacts that embody the accumulated history of human ingenuity and creativity" (Roth & Lee, 2007, p. 198). Rules are the cultural norms, standards or regulations that govern the performance of the activity (Marken, 2006). Division of labor refers to who is responsible for what when carrying out this activity (Marken, 2006). The community where the activity occurs includes the socio-cultural context. Finally, the outcome refers to the desired outcome from carrying out this activity (Marken, 2006).

Engeström's activity theory might prove a fruitful way to move forward as a way to consider the activity of a work term and the requirements of institutions, employer supervisors and students before during and after each work placement. The use of Activity theory to examine the complex nature of learning in CWIE, Eames and Cates (2011) urged us to consider multiple perspectives and that doing so might lead to the strengthening of the theoretical foundations for co-op that in turn would influence pedagogy, and in this case help in the establishment of a quality standards framework (Eames & Cates, 2011).

In the case of the CWIE program, from the institution's perspective, the points of the system correspond to various pedagogical practices in CWIE. The subject is the student, the object the CWIE work term project; the tools are the knowledge and competencies that have adequately prepared the student to be able to work. The rules to be considered are those associated with the Work-Integrated Education (WIE) program design and requirements. The community is the CWIE program faculty and coordinators providing scaffolding. The roles are the division of labor (DoL) found within the CWIE program as relevant to the student on a work term. Finally, the outcome is the CWIE project achievement and associated learning. The workplace is also a learning environment with its own activity system. The subject is the workplace supervisor, the object is the CWIE project, and tools are the training and resources available to support the project. The rules are relevant workplace rules and requirements. The community is comprised of workplace colleagues and the supervisor providing scaffolding. Roles are the workplace divisions of labor as related to the project. The outcome is the CWIE project achievement and associated learning.

In summary, developing a quality standards framework that encompassed all components of both the CWIE institution and employer activity systems allows for a robust theoretical underpinning for this undertaking.

## METHODOLOGY

The methodology used to gather data to be used towards the development of a quality standards framework was to establish a focus group consisting of six participants, across multiple disciplines, three continents, and from different countries: Namibia, South Africa, Canada and three participants from Thailand. This focus group was held in the room of the hotel at the Thai Planning Institute. One participant was a moderator and they all of the sat around the table in discussion. Before starting the focus group discussion and interview, the moderator informed all participants about the purpose of the study, the need to set up a quality standard framework for CWIE as well as describing the focus group format.

The Association of College and Research Libraries (ACRL, 2016), proposes that:

A framework is intentionally called so because it is based on a cluster of interconnected core concepts, with flexible options for implementation, rather than on a set of standards or learning outcomes, or any prescriptive enumeration of skills. At the heart of the framework are conceptual understandings that organize many other concepts and ideas about information, research, and scholarship into a coherent whole (p.2).

Similarly, the standards framework developed for CWIE, encompasses categories and a set of standards which together create a conceptual model for practitioners to use as a guide.

Data generated from the focus group participants was analyzed and interpreted. To verify data, triangulation and member checking was used to ensure internal validity, accuracy of the findings and to protect against the researchers' bias (Creswell, 2003; Merriam, 1998; Yin, 2003) by comparing across individual participants. The content analysis method was employed to achieve the standards framework for CWIE.

## RESULTS

The results of the focus group study was the development of a quality standards framework matrix (see Table 1) that included the CWIE Institution, the employer supervisor and the student with a context of before, during and after each CWIE experience. This matrix was then further divided into the categories of Process (P), Procedures (P), Outcomes (O) and Assessment (A). This approach allowed the research team to fully explicate the processes, procedures, outcomes and assessment of these outcomes for institutional activities before, during and after each CWIE experience, and similarly for the employer and student. The PPOA Quality Standard Framework can act as a guide for all three stakeholders at each stage of the CWIE to ensure quality processes, procedures, outcomes and assessments are followed.

TABLE 1: PPOA Quality Standards Framework for CWIE (Canadian Cooperative Education Program example )

		INSTITUTION		EMPLOYER		STUDENT	
<b>BEFORE</b>	Process <b>(P)</b>	Preparing student for work term	<b>P</b>	Preparing workplace for student's arrival	<b>P</b>	Being ready for transitioning to the workplace.	
	Procedure <b>(P)</b>	Ensures student is eligible and qualified for the work term Provides training that covers topics such as workplace culture, learning objectives, assessment, and reflection. Logistical support for student travel, risk management, housing, learning accommodations.	<b>P</b>	Clarifying job duties, informing work team, arranging for resources (space, equipment, training etc.),	<b>P</b>	Attend institutional training. Complete institutional requirements prior to the work term, such as waivers of liability, codes of conduct, working visas, registration, payment of fees Makes required arrangements for travel to workplace, dress code, housing, personal arrangements.	
	Outcome <b>(O)</b>	Institution has met obligations to both student and employer to ensure that student is qualified and adequately prepared to begin the job.	<b>O</b>	Workplace is fully able to welcome and engage student	<b>O</b>	Student is ready to engage in the workplace on day one.	
	Assessment <b>(A)</b>	Student transitions to workplace smoothly and successfully.	<b>A</b>	Effective orientation, student quickly able to start contributing, employer maximizes value from having student.	<b>A</b>	Student effectively transitions to workplace, understands job requirements, becomes quickly integrated with team, able to access required resources.	
<b>DURING</b>	Process <b>(P)</b>	Supporting student during work term and monitoring progress	<b>P</b>	Supporting student learning and work accomplishment during work term	<b>P</b>	Student engages effectively and in a positive manner during work term.	
	Procedure <b>(P)</b>	Contact with student within first few weeks of term Institution has a method for supporting the student setting of learning objectives and assessment of learning outcomes. Mid-term check in or work site visit Initiates additional contact if needed depending on context and student	<b>P</b>	Supervisor ensures student orientation complete within first few weeks of term and that job duties and expectations are clear. Supervisor helps student identify realistic work term outcomes and learning objectives for work term. Supervisor is accessible to provide resources where needed. Supervisor ensures work team and workplace environment is supportive of student. Supervisor is accessible to provide constructive feedback. Supervisor provides assessment of learning progress. Supervisor is responsive and communicative with Institutional staff.	<b>P</b>	Student ensures understanding of job duties and supervisor expectations. Student sets realistic learning objectives for term. Student assessing learning outcomes Student responds appropriately to constructive feedback. Student alerts supervisor regarding needed resources, work team interactions and other workplace needs as required.	

	Outcome <b>(O)</b>	Institutional staff are fully aware of student workplace activities and progress throughout term Institution can easily connect with students and supervisors when needed.	<b>O</b>	Supervisor's expectations of student performance and learning are being met throughout term. Supervisor is clear about expectations of Institution.	<b>O</b>	Student communicates with institutional staff in a responsive manner. Student satisfactorily completes requires work. Student attains learning objectives and completes learning assessments. Student conducts self as an ambassador of the institution.
	Assessment <b>(A)</b>	Institutional reporting is accurate and complete regarding student work conditions, student learning progress and supervisor expectations.	<b>A</b>	Supervisor provides positive rating of student performance Supervisor assesses student learning with constructive feedback. Supervisor responsive to institutional outreach. Supervisor provides positive rating of institutional support.	<b>A</b>	Student provides positive rating of supervisor support, job requirements and workplace conditions. Student provides positive rating of institutional support. Student learning progresses.
<b>AFTER</b>	Process <b>(P)</b>	Institution provides final assessment of student. Institution debriefs student. Institution thanks supervisor and explores future work term possibilities for students.	<b>P</b>	Supervisor provides final assessment of student learning and of student performance.	<b>P</b>	Upon completion of required work term assignment student provides final assessment of their learning.
	Procedure <b>(P)</b>	Final assessment including student reflection. Conduct student debriefing upon completion of work term. Thank you communications to supervisor	<b>P</b>	Supervisor completes assessments of learning as prescribed by institutional requirements; Supervisor provides constructive final feedback for student; Supervisor provides an opportunity for student to conduct an exit interview of debriefing with supervisor and/or work team.	<b>P</b>	Student completes required assessments and reflections. Student completes assigned work term tasks. Student thanks supervisor and co-workers for the opportunity. Student returns to institution to continue program of study.
	Outcome <b>(O)</b>	Student learning is assessed and reflection supported such that student is enabled to integrate the learning from the work term into their future academic, personal and career goals. Institutional staff maintains positive relations with supervisor and student.	<b>O</b>	Supervisor assessment of student's learning and performance is received by institution; Supervisor and work team receive feedback from student about learning and work outcomes; Supervisor maintains positive relations with institution and student.	<b>O</b>	Student learning assessment is received by institution; Student reflections are received by institution; Student learning is integrated into future academic, personal and career goals. Student leaves work term with all expected obligations having been met and positive relations with supervisor.
	Assessment <b>(A)</b>	Provision to student of credit, grade or other acknowledgement of successful completion of work term. Institutional collaboration with supervisor organization continues and expands.	<b>A</b>	Supervisor's assessment of student learning and performance is factored into student assessment; Student's contribution to workplace has a positive impact or organizational goals.	<b>A</b>	Student learning assessments and reflections are factored into credit or grade. Work term has a positive impact on student learning and on student's future career (e.g., employer references).



In order to illustrate the usefulness of this PPOA quality standards framework, the Canadian contributor to the research team completed the framework using the example of a Canadian cooperative education work term. The point being that this framework is not prescriptive; rather it provides a method for any CWIE program to examine all dimensions of their program towards an assurance of quality.

#### DISCUSSION

The architecture of the PPOA model was designed by the South African author in a matrix format which facilitates an ease of connecting categories and responsible participant expectations during CWIE programs. The framework was given substance using as example the Canadian Cooperative Education Framework to populate the matrix. The framework clearly illustrates how each of the PPOA categories can be used before, during and after the participants experience in industry. The development of a standards framework for CWIE creates a basis for the implementation of structure in programs offered by institutions offering all forms of work-integrated learning. It is agreed by the authors that the framework will bring about consistency and an increased level of quality in CWIE programs.

#### IMPLICATIONS

The adoption of a standards framework could act as a valuable resource and guide to CWIE practitioners across all disciplines on a global scale. The framework paves the way for institutions and industry partners to redesign the way in which CWIE programs are developed. Making use of the PPOA model as guide, ensures that practical components are properly assessed, thereby assisting institutions to determine the success of their respective CWIE programs making accreditation a real possibility.

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# A Mexican Cooperative Education Model: A Case of Educative Innovation

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## ABSTRACT

According to the Ministry of Economy in the State of San Luis Potosi (Mexico) in the last five years there has been a Foreign Direct Investment of 620.2 million dollars, going from 250 international companies set in the area to 521, this growth represent a 200 per cent in five years. With these latest figures available from the Statistical Report on the Performance of Foreign Direct Investment in Mexico (2013), published by the National Foreign Investment Commission, San Luis Potosi is among the fourteen entities recorded a positive flow of investment in the country. These data represents for the Higher Educational Sector a challenge on employability of graduates who, besides having the necessary job skills, should be able to develop in different cultural environment than Mexican. With this on mind, the model of cooperative education in the Polytechnic University of San Luis Potosi was designed specifically to fit the Mexican Educational System with its graduates making a successful integration into international companies minimizing the effects of cultural differences. The purpose of this document is to show the model design, its implementation and the results of the students' integration in the growing market of foreign companies in the region. With more than 120 graduate students of seven series the results shows that students have a cup of 95 per cent employability at the first six months after leaving the school and a successfully integration to companies coming from places like Japan or Germany.

## INTRODUCTION.

According to the Mexican Federal Government the strategies to promote the economic development is to increase the investment in productivity and to create better paying jobs, however the most frequent obstacles to do so are the lack of trained human resources and the lack of linkage between organizations and higher education institutions (SEDECO 2010).

Specifically for the State of San Luis Potosi it has been important for an effectively integration in to globalization attract foreign capitals by the establishment of new companies to reap the benefits of the strategic location, however it is necessary to develop human resources which meets the professional profiles of these new organizations since the universities have failed to meet the demands of businesses due to insufficient links between the industry, academic sectors and government.

With this in mind, the Polytechnic University of San Luis Potosí (UPSLP) proposes a program to strengthen in students practical skills applicable to the industrial sector replicating the model of cooperative education of American and European universities, but adapted to the economic context and social life in Mexico. The program called "University - Industry Training Program", based in the cooperative model of Kettering University, has been adapted to the characteristics of the local environment and recognized as a positive factor for competitiveness. This program was proposed in the Agenda of the State Government of San Luis Potosí in 2008, as a strategy to guide efforts to highly train qualified human resources in engineering in order to bring the consolidation of the region as industrial clusters in automotive and logistics areas, to meet the qualify talent demand of the productive growth and the complex production rate of the most dynamic industries in the world.

## METHODOLOGY

Mexico has identified the need for educational institutions to establish formal links with the productive environment due to the growing need of labor markets for skilled labor. However a specific model of development of intensive training of specialists such as cooperative education as such, didn't exist in the formal education in Mexico.

One, these need was identify, the Polytechnic University of San Luis Potosí (UPSLP) proposes the development of a new professional cooperative education model in the country called "University - Business Training Program". The university analyzed different experiences of cooperative or dual education in other countries; these models showed that this form of linkage is an important source of training and for the incorporation of highly qualified human resources to companies and institutions. In particular, the Kettering University model was identified as a university with extensive experience in this cooperative educational model in the United States. Leading meetings to discuss and learn in depth the academic model, in order to support the design of an institutional program to respond to the characteristics of the local and regional environment, the collaboration with the University of Kettering took shape with the signing of an initial agreement in August 2007, being renovated on 4<sup>th</sup> August 2011.

That is how the "University - Industry Training Program", has a unique form in Mexico, intensively oriented for students who have demonstrated adequate academic performance and who are interested and committed to achieve results in multicultural organizations with a higher working skills demanded as this program requires a greater dedication than the standard demands in the traditional educational programs.

The "University - Industry Training Program", presents innovative features with an efficient approach in the close communication between the main actors: students, companies and university. Among these features are distinguished:

- It has a rigorous and systematic methodological design that guides the timely completion of tasks and responsibilities.
- It has a binding scheme aimed to reduce the low-value activities looking towards increasingly complex activities organized in a work plan established at the outset.

### *Operational Model*

This program was designed especially for highly industry related engineering programs: Industrial Systems and Technology Engineering and Manufacturing Technology Engineering (in this case of study we took the Industrial Systems and Technology Engineering for the functional following of the program). The companies are actively involved in the training of future engineers, taking students in alternating periods of training with stays in college for quarterly periods, assigning in those periods relevant projects of increasing complexity, as well as adequate compensation for their work in the company (Figure 1).

The model starts with a promotion, recruitment and selection process of students once they have completed the fifth semester of in college. To join the cooperative program, the students must have successfully completed their studies until the fifth semester with a grade of 8.5 points (equivalent to a C in the European Credit Transfer System) and a minimal command of English in a B1 level of performance. So, at the beginning of the sixth semester they are integrated to the cooperative group, taking classes during the first marking period of three months.

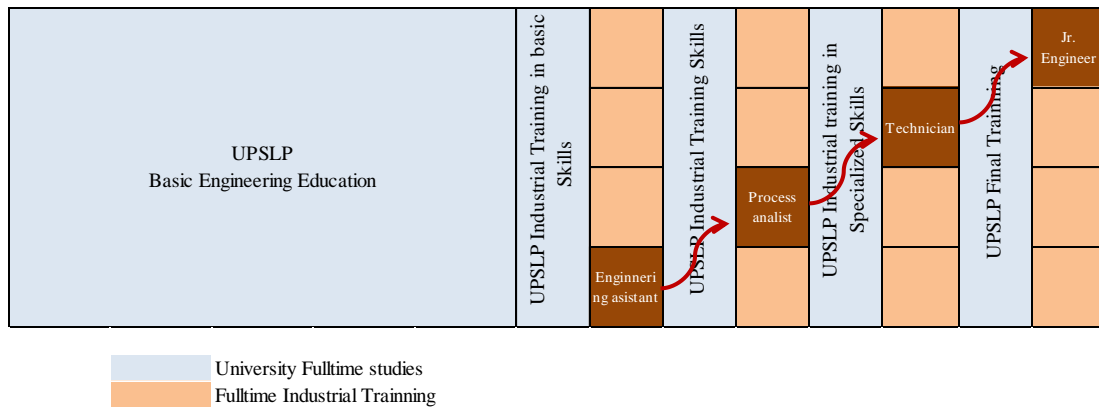


FIGURE 1: Program operation of the university – industry training program (UPSLP) (Nino, 2008)

During this first period, the enterprises start with the selection process where they select peer trainees in order to have the same practitioners throughout the hall training process. Ending first period at the university, the group is divided into a Group A and a Group B (as per the requirements of enterprises), where the group A is integrated into one company and group B remains in college studying the seventh semester. In the next period, the A group returns to college and the B group takes their roles in the company. This process is repeated at least for three more periods where each period in the company represents 576 hours of practical experience so when the students finish the program they have a working experience of at least 1,728 hours (Figure 2).

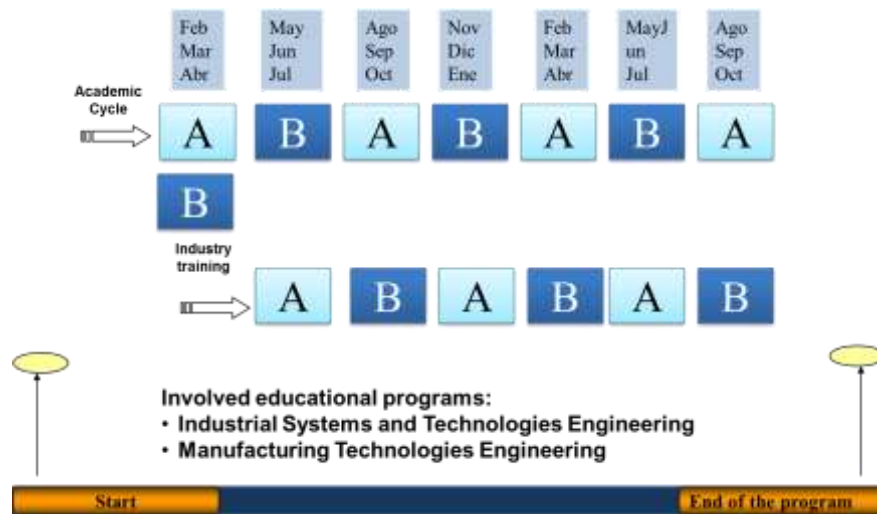


FIGURE 2: Operational model of the university – industry educational program Polytechnic University of San Luis Potosi (Nino, 2008)

During the second period at the company, the students have skills to already carry out jobs as junior level, characterized by a certain degree of decision-making but still under the supervision of an advisor. In the third period, the company has a professional capable of making functional decisions and the level of supervision by the consultant is minimized. Here is where companies have proven the development of appropriate professional competence and is where the decision to offer the student a permanent and paid job is taken.

Also during this third period, the student generates a comprehensive report of the project results of the project during its stay at the industry, allowing completion of the qualification requirements of the university and once it's finished, to obtain the engineering degree supported by the university.

#### CASE OF STUDY: MEXICO

As the first model cooperative education in Mexico, with the first generation it has to overcome some challenges. After signing the collaboration agreement with the University of Kettering in 2007, the program began in 2008 with a pilot working group, where there were involved in the program, in addition to the university, government agencies, industry associations and industries of different areas like automotive, home appliances fabrication and agribusiness settle in the region San Luis Potosi.

The program began with a small group of 16 students and upon completion the trial period in 2008, companies showed an adequate level of satisfaction resulting in continuing with the program, retain students and recommend the program to other companies.

Documented in reports, companies found that the early integration of students generated direct results in productivity improvements in operations, increasing the speed of production, reduction of variation, less waste in their processes, savings in man hours and reduction of inventory materials. The students recognized as main benefits the acquisition of new knowledge and experience obtained, expressing interest to continue in the program and recommend it to their peers. The university, through the implementation of the program, has gotten to know more detailed requirements of the companies, technologies, processes and development plans, providing elements to improve and update academic programs.

After a critical period due to the impact of the automotive crisis in 2008, where the program had to be suspended, the project resumed strongly in 2011 with the renewal of the collaboration agreement with the Kettering University and the interest of students and companies to continue the program.

Currently the program is working with the seventh generations of students who will join the industry in April 2016.

#### *Economic Crisis Impacts the Program*

It is important to note that the main financing of the program rests on the company who are responsible for providing the resources to carry out the agreed projects, and cover the remuneration of the students occupied during their stay in the company. However, note that this feature makes it susceptible to changes in the economy that may limit the budgets for training or recruitment as it was the case in 2008 that the worldwide crisis in the automotive sector temporarily halted business involvement in the program (the University coordinates and operates the program with its own infrastructure and active academic staff). It was why the program was inactive for two periods (2010-2011).

After the evaluation period (2008-2009) and analysis of the pilot group results, the interest of the companies and the students themselves resumed strongly in 2011 with the renewal of the collaboration agreement with the Kettering University.

#### *The Program Today*

The mainly success in this program may be supported on the rate of employability of students who have been participated and the ones that are currently participating in..

In 2008, with the first generation of the "University - Industry Training Program", (2008) there were only two foreign companies in the automotive area, a Mexican company for production of household appliances and a Mexican company for the area food involved in the program (this last one due to budgetary reasons decide to leave the program relocating students in the automotive business for the second period).

The second generation showed the effects of external factors which can have important effect on the project precisely because of the predominant reliance on foreign manufacturers in the area and which depend on corporate budgets. That was why at the mid-term stays of the second generation, the program had to be suspended and students had to be returning to standard educational programs. But the effort was resumed with a third generation who joined the program in January 2012 and the positive effects were increased. The number of participating companies has increased from three to six in the third generation and six to eight for the fourth generation, with an equal effect on the number of students who passed eight to 30 and 34 (Figure 3).

An interesting consequence of the program was presented in the third generation, by the results of the trainees; the companies contacted the coordination program to hire students in the third period of practice, when no longer they have to return to school to complete the program.

With the fifth generation of the program it was evident the impact that it can have outside the region. At first a Mexican food processing company selected a couple of students to send them to the tuna processing plant in southern Mexico to apply techniques and tools of engineering in their processes. The results were as good as expected, that was why once students completed the program were hired by the company.

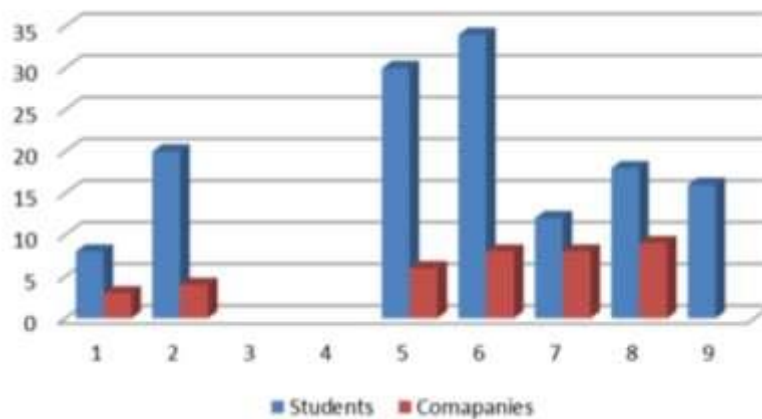


FIGURE 3: University – industry training program through the years

Also during this fifth generation, a student participated in the selection process of a German company to attract talent and achieved a place on the Japanese plant of the company; opening doors for two more students over the fifth generations which now are working in Japan. More specific results are that 85% of the students are currently working in international companies whose corporate are in Germany and Japan and de 95% have been hired in less than two months after finish the program.

Specifically the program at its fourth and fifth generation, two students have won two National Awards for Academic Excellence, awarded by the National Evaluation Center for Higher Education (CENEVAL); a group of them won a First National place (2014) and Second International (2015) in the contest Technical Essay by the Institute of Industrial Engineers (IIE) in Canada.

That is why we can determine that the program has become important for all the participants, checked with the increase in the number of participants and the increasing hiring as professionals of the recently graduated students.

#### *Local Impact*

The Training Program University Enterprise of the Polytechnic University of San Luis Potosi recognizes the basic assumption that the regional and local development mainly depends on the formation of talent and capabilities to develop innovations.

In the area of training and skills development and employment, these programs firstly allows, strengthen the comprehensive training of future engineers through skills development closely linking scientific and technological knowledge with practical application professional and, secondly, inserted at an early stage to gainful employment, closely related to their specialty and to provide prospects for professional development in the future.

As it can be seen, the program has favorable impact on enterprises, employment and regional development level by linchpin of innovation and talent training in the area of engineering. This enriches the proper function of the university to provide feedback and strengthen their processes of teaching, research and dissemination of knowledge through close links with the challenges and the reality of the companies in the region.

#### *Transfer Capability of the Program*

This training program can serve as reference for efforts linking between higher education institutions and businesses as it has features that facilitate their replication and adaptation in other contexts.

The main elements that would facilitate the transfer of the program are:

1. It is a model of integrative and inclusive bonding.
2. Develop cooperation toward common goals and expectations to be achieved by all stakeholders.
3. Program benefits are tangible quantitatively and qualitatively according to each company and student concert participate in the program.
4. The scheme is based on operating manuals with their policies, procedures and forms of work that respond to different activities of interaction between actors in the model.
5. Provides detailed assessment indicators and monitoring, both for companies and students, established a work plan agreed that values.

To ensure the success of a program like this, it is required to perform an important work of raising both the academic community and business in the region in order to bring about a change in the culture of linkage.

## CONCLUSION

The "University - Industry Training Program", at the Polytechnic University of San Luis Potosi is in the long term sustainable by its very nature, as its operating philosophy is based on the agreed list of participants that encourages mutually relationships to achieve common benefits.

The current environment favors exchanges and university business linkages as a means to keep up and boost future growth. In this way the program is set up as a valuable tool to perform a work of accompaniment in improving business processes, training and employability of students and thus create better conditions for regional and local development.

The tangible benefits that the program offers participants from its early stages, feel bases and motivate their permanence and viability in the medium and long term. For this reason, it can be noted that it is likely that the model generates a virtuous circle that will consolidate and expand the university business linkages. Proof of this is the interest shown by the participants to continue and expand their participation in the program companies, as well as requests received by new companies to join the program.

However, it was also found as a point of risk, corporate finance, key to the sustainability of the project as being these global companies, the problems of global economies affect the resources available for their participation, as demonstrated when the second generation in 2008, the crisis in the automotive industry, the program postponed participation by budget cuts.

The major limitation identified for the smooth running of the program is, as mentioned in the previous section, acceptance and involvement from the business sector, which must be addressed through a clear, responsible and orderly sensitization process and information about the benefits and operation of the Program.



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# Students on the Edge: Stakeholder Conceptions of Diversity and Inclusion and Implications for Access to Work-Integrated Learning

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## ABSTRACT

Not all students can access and fully participate in the placement model of work-integrated learning (WIL) (Mackaway, Winchester-Seeto & Carter, 2014). In an environment where the student cohort is growing in its diversity, and universities are making increasing use of WIL as a strategy to prepare 'job ready' graduates, this problem of accessibility is concerning. While partner organizations (employers) are critical to the delivery of WIL, little is known about the part they play in relation to this problem. Drawing on organizational psychologist Edgar Schein's (2010) work on workplace culture, this Australian based study examines 138 publically available documents from a range of organizations and industries to gain insights in organizational attitudes and beliefs regarding issues of diversity and inclusion, and to consider implications for student accessibility to WIL. Using thematic analysis, findings indicate two dominant ideological positions inform organizational engagement with diversity and inclusion. These findings suggest some workplace cultures maybe predisposed to providing WIL placements in more inclusive ways. The study highlights the need for further research in this area, particularly the role of the individual employee in relation to student accessibility.

*Keywords: Accessibility; equity; workplace culture; work-integrated learning.*

## INTRODUCTION

Issues of access and equity in work-integrated learning (WIL) are emerging as a challenge for universities and students, namely, not all students can access or fully participate in the placement/internship model of WIL (Mackaway, Winchester-Seeto, & Carter, 2014). As the student cohort continues to grow in its diversity (Norton, 2013) and universities make increasing use of work-integrated learning (WIL) as a strategy to meet government, industry and community demands for work ready graduates (Bradley, Noonan, Nugent, & Scales, 2008), the issue of student accessibility will remain (Mackaway et al., 2014). The full value of WIL can only be realized if more, if not all, students can participate. Therefore the problem of accessibility in WIL cannot remain on or beyond the edge of WIL, instead it needs to move front and center (Orrell, 2011).

Studies in a range of disciplines reveal the accessibility challenges experienced by specific groups of students within the WIL context. Isolation is experienced by culturally and linguistically diverse students on teacher education placements, resulting in underachievement and poor professional identity formation (e.g., Iyer & Reese, 2013), which has potential implications for teacher retention (Achinstein, Ogawa, Sexton, & Freitas, 2010). Stigma, discrimination and procedural challenges associated with disclosing a mental health issue are reported by nursing, teaching and social work students (McAuliffe, Boddy, McLennen, & Stewart, 2012). While racism experienced by Indigenous social work students undermines learning and ignores what students bring to the experience (e.g., Gair, Miles, Savage, & Zuchowski, 2014). Despite acknowledgment that there are access and equity issues in WIL (Orrell, 2011), limited attention is directed to more universal aspects of this problem. Some attempts are evident, with consideration given to matters such as: understanding institutional capacity for an inclusive approach (Campbell et al., 2014); financial barriers for students (Moore, Ferns & Peach, 2015); and, a more comprehensive identification of students affected (Mackaway et al., 2014). There is inadequate understanding however, of the role partner organizations play regarding student access to WIL. There is evidence that employers select students based on their own workload (Smith & Smith, 2010), veiled or explicit

racist views (Blackmore et al., 2014) or recruitment motives (Cullen, 2005). Yet there has been no thought to how an organization's culture, particularly in relation to diversity and inclusion, influences decisions about which students to host. The author's previous career in human resource management suggested that useful insights into partner choices and why some students experience access issues could be gained through a consideration of workplace culture.

It is proposed by organizational psychologist Edgar Schein (2010) that workplace culture can be understood if something can be learnt about the beliefs and behaviors accepted by a workplace, which can be partially achieved through an examination of the 'artefacts' organizations make public, which include observable structures, processes and documents such as mission statements, policies, strategic plans etc. These documents reveal how an organization understands and ascribes importance to an issue, while also signaling the beliefs and assumptions which underpin organizational thinking and behavior (Schein, 2010). Drawing on Schein's work, this paper presents findings from a study of publicly available organizational documents used to gain insights into the perspectives of employers and universities on issues of diversity and inclusion. The respective views and approaches of each stakeholder are identified and compared in light of potential implications for student accessibility in WIL.

While publically available documents are useful to understanding organizational culture, they cannot reveal the full story. Talking to employees is also required to uncover the nature of a workplace culture along with the culture of particular occupations/professions (Schein, 2010). With this in mind, findings from this document study into the 'public' views of organizations on these issues will be used to inform the 'private' interviews with stakeholders in a study to follow.

#### WHAT IS MEANT BY THE TERMS "DIVERSITY" AND "INCLUSION"?

From a sociological perspective the modern usage of the term 'inclusion' has come to acknowledge that inclusive societies are those that aim to account for the diversity of individuals within the context of social, economic and political life, including education and employment (Allman, 2013; Rizvi & Lingard, 2011). Common features appear regarding expressed understandings of diversity and inclusion, namely, the identification of those who have been excluded and should be included, and expressions of degrees of inclusion (Gidley, Wheeler, & Bereded-Samuel, 2010; Hockings, 2010).

Modern articulations of inclusion and exclusion draw on a range of theories which consider ideas about social and cultural capital, power and knowledge, systemic deprivation and social reproduction (Bourdieu, 2001; Bourdieu & Wacquant, 1992; Foucault, 1980). For the purposes of this study, Gidley et al's (2010, p. 10-14) "3-part nested schema" of social inclusion provides a useful summary of the complex "spectrum" of theories and ideological positions which inform the narrow through to expansive degrees to which issues of diversity and inclusion are engaged with:

1. Inclusion = access = narrow engagement: neoliberal ideology, characterized by theories about free market economics, economic growth, human/social capital, free trade, and the knowledge economy. Inclusion can be about 'fitting in' with the dominant discourse to access the opportunities which build capital and market value. (see Olssen & Peters, 2005; Rizvi & Lingard, 2011).
2. Inclusion = access + participation = moderate engagement: social justice ideologies, shaped by a wide range of theories including feminist and neoliberal ones. Inclusion requires equality of opportunity to participate in all aspects of economic and social life. (see Levitas et al., 2007; Saunders, 2015).
3. Inclusion = empowerment = expansive engagement: human potential ideologies, shaped by postcolonial theories and beliefs about identity, hope and empowerment. Inclusion is about embracing the collective and empowering value of difference by making space for individual choices and different ways of knowing and being. (see Gale & Hodge, 2014; Sen, 2009).

In his model of organizational culture, Schein (2010, p.44) would view these various theories and beliefs as part of the “invisible values and assumptions” that underpin respective workplace cultures, and which may or may not align with the “espoused values” an organization chooses to share via their public “artefacts” i.e., documents. The beliefs and assumptions which shape an organization’s culture are useful to understanding the role partner organizations play in the problem of access and equity in the placement model of WIL.

## RESEARCH METHODS AND PROCESSES

A cross section of sectors and disciplinary areas were targeted to support the exploratory nature of this study. Both metropolitan and regional Australian universities ( $n = 5$ ) known to offer WIL<sup>1</sup> were included, along with a range of partner organization types, sizes and industries involved in WIL ( $n = 9$ ). Professional associations ( $n = 9$ ) related to the industries represented in the study were also included since they guide the values and ethical conduct of their profession (Dickson & Arcodia, 2010). A pre-determined list of documents thought to be relevant and easily accessible were sought (Layder, 2013), including annual reports, strategic plans and mission statements.<sup>2</sup> Supplementary documents from organizational websites were also pursued using keyword searches: inclusion; diversity; access; equity/equality; cultural awareness; and, discrimination. Document gathering stopped once it was deemed there was a sufficient quality to address the research problem ( $n = 138$ ), while ensuring documents from no stakeholder group overwhelmed the sample (Bowen, 2009).

A preliminary scan of documents was conducted to gain an overall picture of the data (Bowen, 2009), followed by further data interrogation, guided by two high level questions: what is the organization’s basis/reason for engagement? what evidence of engagement is there in the documents? These questions also formed the preliminary codes to organize and interpret the data (Layder, 1998).

Further analysis identified sub-themes within the above codes, which involved grouping/re-grouping similar ideas and themes in an iterative and constantly comparative way, making note also of where differences occurred (Cohen, Manion, & Morrison 2011). Six broad sub-themes emerged regarding the basis for stakeholder engagement with issues of diversity and inclusion (Appendix 1). Evidence of activities and achievements were identified in the documents, including advocacy work, government submissions, scholarships, sponsorships, networks, awards etc. (Appendix 2).

Throughout the coding and analysis cycles, theories and concepts related to inclusion and workplace culture which might help explain organizational behavior in relation to accessibility in WIL were noted (Layder, 1998). This method was guided by Layder’s (1998, 2013) ‘adaptive’ approach to social research, where theories and concepts are used inductively and deductively. In this instance, theories and concepts related to inclusion, diversity and organizational culture shaped the initial research questions, guided the thematic analysis and helped explain the problem.

Findings in this study represent the understandings of diversity and inclusion by a small number of organizations, and are based only on the documents which were publically available at the time and located using criteria established for the study. The findings are not definitive, but do provide useful insights into organizational engagement with diversity and inclusion, from which we can deduce some of the reasons why students may face accessibility challenges in relation to WIL.

## FINDINGS

### *Overall Findings*

Twenty-one out of twenty-three organizations in this study articulated some type of commitment regarding the need for and value of diversity and inclusion to their organization. Only two organizations had no publicly available documents related to issues of diversity and inclusion, but these organizations employed less than 20

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<sup>1</sup> Australian universities included in this study: Go8 ( $n=0$ ); Innovative Research – (1); Australian Technology (3); Regional Uni Network (1).

<sup>2</sup> Audio, visual and non-text type material were excluded to make this study manageable.

people. Previous research has suggested small to medium size organizations generally have low rates of engagement with these issues (Syed & Kramar, 2010).

Documents reflected a range of understandings amongst the three stakeholder groups (universities, partners and professional associations) regarding what diversity is and who should be included. Some organizations focused on specific equity groups, often women, while others saw diversity as something beyond predefined groups and included things like peoples' capabilities, life experiences, knowledge etc. Diversity and inclusion were sometimes also closely linked:

...to feel highly included, a person would not only say that they are treated fairly and respectfully, but that their unique value is known and appreciated, and they belong to the group (from Diversity and Inclusion Report 2012, partner organization 5).

Some differences appeared between universities and for-profit organizations when it came to the basis for engagement with diversity and inclusion. For-profit organizations placed greater emphasis on the potential commercial benefits that come from engaging, while universities place similar degrees of importance on both commercial and social justice rationales.

#### *Basis for Organizational Engagement with Diversity and Inclusion*

Six key bases for organizational engagement with issues of diversity and inclusion by universities, partner organizations and professional associations were identified (see Appendix 1 for details):

1. Linked to purpose, values and identity of the organization
2. Linked to social justice rationale
3. Linked to external stakeholders and conditions
4. Linked to internal stakeholders and pressures
5. Required by law
6. Linked to organizational sustainability

The basis for engagement which appeared most frequently in documents ( $n = 47/138$ ) and amongst the organizations ( $n = 21/23$ ) was *linked to the purpose, values and identity of the organization*. For example:

We aim to be recognized as the leading professional services firm for the inclusion, involvement and inspiration of talent with culturally diverse experiences and perspectives by fostering cross-cultural skills and capitalizing on the rich synergies that come from culturally diverse individuals and teams (Cultural Diversity Strategy, partner organization 3).

Furthermore, the above extract was indicative of the way many organizations in this study framed their engagement with diversity and inclusion in terms of the market value it brought their organization. Annual reports, strategic plans, and employment related documents, suggested organizations aligned their engagement with their commercial priorities, driven by external and internal stakeholders and conditions. Phrases such as "admission to new markets, clients or students", "competitive edge" and "access to a wider talent pool" commonly appeared in documents from all stakeholder groups as reasons for engaging (i.e., partner organization 3, 5 and 9; professional association 3, 5 and 7; university 1, 2 and 5). In some instances engagement was presented in business case terms. Indeed, a 2010 survey of Australian and New Zealand organizations found two-thirds of respondents cited 'the business case' as a driver for engagement (Equal Employment Opportunity Network of Australia – EEONA, Survey 2010). A pragmatic approach to addressing issues of accessibility in WIL might suggest universities need to understand what the commercial benefits are to employers in hosting a range of students, and then work with employers to address these areas.

While commercial priorities, driven by internal and external pressures, appeared to provide a significant basis for engagement, 17/23 organizations made reference to a social justice rationale as another key reason to engage, as per:

...[organization name] has a long standing commitment to equal opportunity...respecting and valuing the diversity of our people and all those with whom we do business...it is the norm (from Recruitment document, partner organization 3).

The purpose of organizations included in this study may help explain the frequent appearance of these egalitarian values, that is, government funded universities, who have traditionally viewed equitable access to education as a right (Gale & Tranter, 2011); professional associations, who influence the ethical conduct of their profession (Dickson & Arcodia, 2010); and two not-for-profit partner organizations involved in social and health related services. While the social justice basis for engagement was referred to by the majority of organizations, it was mentioned less (29/138) than the commercial value of engagement, which appeared in documents related to external stakeholders (40/138), internal stakeholders (26/138) and organizational sustainability (19/138). Moreover, it was the universities who made proportionately more references to social justice compared with the other two stakeholder groups.

An egalitarian approach to diversity and inclusion is thought to be associated with the core business and philosophy of a university - "human rights and social justice are intrinsic to all aspects of University life (Equity and Diversity Plan 2014-2017, university 2), with "equity usually considered to be one of the three fundamental measures of effectiveness of a higher education system, alongside quality and efficiency" (James, 2012, p.83). Schein (2010) would argue this statement of espoused beliefs is indicative of the underlying assumptions of this institution, and of universities more generally, whose engagement with these issues is broad and comprehensive, and includes ideas about the human potential and social capacity building role of education (Gidley et al., 2010). These ideas are embedded in the way these organizations think and behave regarding diversity and inclusion, it is part of their purpose and culture, indeed it is probably expected of them by a range stakeholders (Gale & Tranter, 2011) which maybe different to other organizations in this study.

It was unexpected that *required by the law* did not feature more prominently as a reason to engage with diversity and inclusion. Penalties for non-compliance with relevant laws in Australia are minimal, meaning these issues are not given high priority (Syed & Kramar, 2010). Alternatively, the low rating of legal compliance as a driver may be indicative of a shift from an equal opportunity discourse to one favoring engagement linked to business performance, although the shift in discourse is probably not as clean or "clear cut" as this (Tatli, 2011, p.239). Nevertheless, compelling employers to engage inclusively with WIL may not be an option worth considering.

#### *Evidence of Engagement by Organizations*

An examination of the documents in this study revealed an assortment of ways in which all three WIL stakeholder groups engaged with diversity and inclusion. Examples of deeds, achievements and activities were sought from the documents and eleven main areas of activity identified with varying degrees of active engagement by each of the three stakeholder groups (see Appendix 2 for details).

All the universities and professional associations in this study, as well as two thirds of the partner organizations, engaged with diversity and inclusion in three main ways. Firstly through specific equity, diversity and inclusion strategies; second by way of targeted services and support; and the last was evidenced via advocacy, advisory and awareness raising activities.

These deeds and activities however, were often reduced to a specific equity group, namely women. Schein (2010, p.75) points out that to understand an organization's workplace culture you "need to understand the organizations' macro cultural context" as organizations "reflect the national culture". Issues such as the gender pay gap, domestic violence against women, working mothers and childcare needs, are topics of interest in countries such as Australia, and help explain why gender equity receives so much attention in terms of organizational strategies, services and support. And while gender equity issues are worthy of employers' continued efforts, it may leave little scope for other groups or access issues to receive attention unless driven by the particular interests of an organization's leadership (i.e., Indigenous program in professional association 3) or to meet a specific need within a sector (i.e., culturally and linguistically appropriate services by partner

organizations 7 and 8). Universities may need to work with organizations where leaders and/or business priorities focus on specific inclusive initiatives as a way to secure placements for particular groups of students.

All five universities and approximately half the partner organizations and professional associations actively engaged with diversity and inclusion through corporate citizenship activities, such as: mentoring 'at risk' young women (partner organization 9); Indigenous awareness programs for schools (university 1); free financial advice for people from low socio-economic backgrounds (professional association 1). Research by EEONA (2010) reported an increase in organizational engagement through corporate social responsibility (CSR) activities. Universities could capitalize on this shift, and position an inclusive approach to WIL as something that forms part of both an organization's CSR and talent management strategy.

There were three areas where universities appeared to be more actively engaged with issues of diversity and inclusion than partner organizations and professional associations. The first related to financial support, where all universities offered scholarships, bursaries and grants to employees and students, versus only 2/9 partner organizations and 4/9 professional associations. The second difference related to codes of conduct, where all universities specified a minimum level of acceptable behavior in relation to issues of equity and inclusion versus only a third of partner organizations and half of the professional associations. The third difference involved monitoring and evaluation of organizational performance against set diversity and inclusion goals. Documents indicate universities were proportionately more active in these and all other areas of engagement. Gidley et al (2010) would argue this expansive type approach is underpinned by a spectrum of ideologies which acknowledge the economic benefits to individuals and society of engagement, but moves beyond this to also encompass a culture which supports notions of equality, identity and empowerment.

## DISCUSSION

Schein (2010) suggests organizations use documents such as those found in this study, and the messages they contain, to build and reinforce a workplace culture that can be used to help an organization "prove and protect" who they are so they can "survive, grow and adapt in their environment" (Schein, 2010, p.38). Given the current competitive global economic conditions, where organizations vie for skilled employees and market share - often beholden to expectant shareholders, it was unsurprising to find the prevalence of neoliberal ideologies underpinning the way organizations engaged with issues of diversity and engagement. All organizations expressed an understanding and approach in terms of 'market value', and the capacity building potential of engaging in terms of workforce, market share or sustainability. Engagement needed to make good sense commercially, aligning with an organization's priorities, with anything else deemed potentially too risky and unacceptable (Blackmore et al., 2012). As found in this study, it was the for-profit organizations in particular who had priorities centered around competitive advantage, profitability and market leadership. Engagement with diversity and inclusion was then framed heavily in these terms, and inclusion reduced primarily to a matter of access only e.g., "access to a wider talent pool" (partner organization 3, 5 and 9), but access only for those perceived to 'fit' with the existing workplace culture (Bourdieu & Wacquant, 1992). Gidley et al. (2010) argues neoliberal beliefs and values foster this narrow type of engagement, suggesting that those organizational cultures which are underpinned by these notions are the very workplaces which limit access to WIL for particular students.

Findings from this study suggest however, that not all organizations view these issues through a single ideological lens and narrowly engage with issues of diversity and inclusion. Those not-for-profit and government organizations involved in education, health and social services appeared to be driven equally to engage by both commercial imperatives and social justice beliefs. Like the for-profit organizations previously mentioned, these organizations also used documents to build and reinforce workplace cultures that will help their organization continue to exist and prosper according to their particular priorities (Schein, 2010). While these organizations link diversity and inclusion to economic interests, they also ascribe similar importance to notions of justice, fairness and egalitarianism of opportunity and put into place policies and strategies to improve access and active participation for more, or all, their staff and clients (partner organizations 2 & 7; universities 2, 3 & 4). This



approach reflects not only an expansive approach to issues of diversity and inclusion (Gidley et al., 2010), but one which may be predisposed to offering WIL in more accessible and inclusive ways.

These findings suggest that the workplace culture of particular organizations i.e., not-for-profits and those involved in education or the caring professions, may mean they are predisposed to engaging with WIL in more egalitarian and inclusive ways. The question is whether universities should attempt to get all partner organizations to embrace a more inclusive approach to WIL or whether to only target these predisposed organizations. While a targeted approach to working with WIL organizational partners will no doubt have its pros and cons, it ignores the fact that accessibility challenges are reported by nursing, teaching and social work students (e.g., Achinstein et al., 2010; Gair et al., 2014) who are presumably undertaking placements within the very types of organizations, i.e., schools, hospitals and community services, which this study proposes exhibit a workplace culture suggestive of a predisposition or sensitivity to an inclusive approach to WIL.

Schein (2010) warns that an organization's culture cannot be fully understood through an examination of their public artefacts alone, but rather this must be done in combination with talking to employees. For this reason the planned interviews to follow with employees involved in the delivery of WIL will provide an opportunity to explore 'private' beliefs and assumptions on issues of diversity and inclusion, considering how these relate to those 'publically' espoused, and how together these create workplace cultures which either support or inhibit student accessibility. These interviews will also explore the pragmatic reasons that influence the decisions individuals make about which students to take, i.e., workload, risk management etc., and how these impact accessibility to WIL.

## CONCLUSION

The culture of a workplace needs to be considered as a contributing factor to student accessibility in WIL, and organizational documents provide useful insights into the beliefs and assumptions which underpin an organization's culture. Organizational documents can help universities and WIL practitioners identify organizations that may be more willing to adopt an inclusive approach to WIL, at the very least, insights gleaned can suggest ways in which the sometimes sensitive topic of access and equity could be tackled with particular employers so that more placements can be secured for more students. Failing to understand and work with employers to address the problems associated with accessibility means WIL's full potential cannot be reached. Students will miss out on the extensive range of personal, academic and career benefits WIL can offer (Dressler & Keeling, 2011), while organizations will forgo the chance to tap into the "fresh and different" ideas that come from hosting students (Tanaka, 2009, p.5), benefits which could be maximized when students come from diverse backgrounds (Shore et al., 2009). There are social and economic implications that impact at the individual, organizational and societal level if the problem of accessibility remains on the edge of WIL and does not receive the attention it requires.

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APPENDICES

APPENDIX 1: Basis for organizational engagement with issues of diversity and inclusion

Basis for engagement categories	Number of documents cited	Total number of orgs who evidence this basis	Documents where evidenced (examples)
Linked to purpose, values and identity of the organization  <i>Public image; values, organizational philosophy</i>	No. documents = 47/138  Universities = 17/47 Partner org = 18/47 Professional assoc = 17/47	No. organizations = 21/23  Universities = 5/5 Partner org = 7/9 Professional assoc = 9/9	Mission, values and principles 'statements'; annual reports; strategic plans (e.g., Diversity and Disability Action Plans)
Linked to social justice rationale  <i>Promotes/advocates rights, respect, fairness and equality</i>	No. documents = 29/138  Universities = 12/29 Partner org = 8/29 Professional assoc = 9/29	No. organizations = 17/23  Universities = 5/5 Partner org = 5/9 Professional assoc = 7/9	Mission, values and principles 'statements'; annual reports; strategic plans; diversity policies; graduate attribute statements; disability plans
Linked to external stakeholders and conditions  <i>Economic conditions; competition; government policy; globalization; stakeholder expectations</i>	No. documents = 40/138  Universities = 20/31 Partner org = 9/32 Professional assoc = 13/32	No. organizations = 15/23  Universities = 5/5 Partner org = 4/9 Professional assoc = 6/9	Annual reports; Strategic and operational plans; Reconciliation Action plans; government submissions; Values 'statements'; Professional standards; research; resources, tools and information for specific equity groups.
Linked to internal stakeholders and pressures  <i>Equitable access to support and services; attraction and retention; leadership</i>	No. documents = 26/138  Universities = 9/26 Partner org = 5/26 Professional assoc = 12/26	No. organizations = 17/23  Universities = 5/5 Partner org = 5/9 Professional assoc = 7/9	Mission, values and principles 'statements'; annual reports; strategic plans; networks; discussion papers; handbooks, tip/fact sheets; member magazines; employment policies/strategies including scholarships and surveys.
Required by law  <i>Anti-discrimination; equal employment opportunity</i>	No. documents = 16/138  Universities = 6/16 Partner org = 3/16 Professional assoc = 7/16	No. organizations = 14/23  Universities = 5/5 Partner org = 3/9 Professional assoc = 6/9	Annual reports; code of ethics and professional standards; resource materials/reports for members/industry; disability plans/policies
Linked to organizational sustainability  <i>Labor demands; profitability; access to new clients/markets competition</i>	No. documents = 19/138  Universities = 5/19 Partner org = 7/19 Professional assoc = 7/19	No. organizations = 12/23  Universities = 4/5 Partner org = 4/9 Professional assoc = 4/9	Annual reports; strategic plans/programs; employment and talent management related policies and procedures.
Other  <i>Accessible physical environments</i>	No. documents = 6/138  Universities = 5/138 Partner org = 3/138 Professional assoc = 0/138	No. organizations = 5/23  Universities = 3/5 Partner org = 2/9 Professional assoc = 0/9	Disability Action Plans; diversity and inclusion report.

APPENDIX 2: Evidence of organizational engagement with diversity and inclusion

Deed, activity and/or achievement (as evidenced in documents)	Stakeholder engagement
<b>Organizational services and support</b> including: <ul style="list-style-type: none"> <li>• Flexible work practices for employees</li> <li>• Welfare and/or pro bono services</li> <li>• Professional development and continuing education</li> <li>• Offered to clients in range of languages; at lower cost etc</li> </ul>	Universities = 5/5 Partner organizations = 6/9 Professional associations = 9/9
<b>Specific equity, diversity and inclusion strategies</b> including: <ul style="list-style-type: none"> <li>• Dedicated staff, resources, programs, education strategies</li> <li>• Targets set to increase access/participation</li> </ul>	Universities = 5/5 Partner organizations = 6/9 Professional associations = 9/9
<b>Advocacy/Advisory/Awareness raising activities</b> including: <ul style="list-style-type: none"> <li>• Government submission papers, commissioned reports</li> <li>• Membership to external boards/committees</li> <li>• Events, awards, newsletter articles and website blogs</li> </ul>	Universities = 5/5 Partner organizations = 6/9 Professional associations = 9/9
<b>Organizational policies, procedures and guidelines</b> <ul style="list-style-type: none"> <li>• In the areas of equity, inclusion, diversity, employment, conditions, corporate social responsibility</li> </ul>	Universities = 5/5 Partner organizations = 6/9 Professional associations = 5/9
<b>Codes of Conduct/Corporate Responsibilities</b> <ul style="list-style-type: none"> <li>• Which apply to the whole organization or to individuals</li> </ul>	Universities = 5/5 Partner organizations = 3/9 Professional associations = 5/9
<b>Scholarships, bursaries, grants</b> <ul style="list-style-type: none"> <li>• Offered by employers, professional associations and universities to students, employees and members</li> </ul>	Universities = 5/5 Partner organizations = 2/9 Professional associations = 4/9
<b>Corporate Citizenship activities and programs...</b> including: <ul style="list-style-type: none"> <li>• Foundations, volunteering, research, mentoring</li> <li>• Sponsorship of events, programs, research, study</li> </ul>	Universities = 5/5 Partner organizations = 4/9 Professional associations = 4/9
<b>Networks and organizational committees</b> <ul style="list-style-type: none"> <li>• 'Equity' networks within and across organizations and sectors</li> <li>• Equity groups represented on Boards and Committees</li> </ul>	Universities = 4/5 Partner organizations = 5/9 Professional associations = 7/9
<b>Awards...</b> including: <ul style="list-style-type: none"> <li>• Given and received by organizations and government</li> <li>• Awards to 'equity' students for academic achievement</li> </ul>	Universities = 3/5 Partner organizations = 3/9 Professional associations = 3/9
<b>Research</b> <ul style="list-style-type: none"> <li>• Sponsored, commissioned and/or undertaken directly by the organization or their employees</li> </ul>	Universities = 4/5 Partner organizations = 4/9 Professional associations = 5/9
<b>Monitoring and evaluation activities</b> <ul style="list-style-type: none"> <li>• Organizations determine goals and/or set targets, which they monitor and report against.</li> </ul>	Universities = 4/5 Partner organizations = 4/9 Professional associations = 4/9
<b>Other</b> <ul style="list-style-type: none"> <li>• Accessible buildings and amenities</li> <li>• Employee/member surveys</li> </ul>	Universities = 3/5 Partner organizations = 3/9 Professional associations = 3/9

# Creating a Climate for Global Work-Integrated Learning

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## INTRODUCTION

This cross national study examined barriers to participation and strategies for enhancing international students' involvement in WIL in Canada and Australia. The link between relevant work experience and graduate employment outcomes has led to growing interest in work-integrated learning (WIL) and its role in enhancing the employment outcomes of international students. For international students seeking to differentiate themselves in a highly competitive global labor market, foreign work experience is now an integral part of the overseas study 'package'. WIL is seen to provide critical 'employability' knowledge and skills, however international students have low participation rates (Gribble, 2014).

Despite placing high value on acquiring discipline related work experience while studying, international students have low participation rates, and are often dissatisfied with current opportunities to participate in work-integrated learning (WIL) (Gribble, 2014). The high value placed on WIL among international students poses challenges for Australian and Canadian universities as well as opportunities. Both Canada and Australia are leading providers of international education, however there is rising competition from traditional competitors such as the UK, USA, NZ as well as Asian nations such as Singapore, China and Malaysia. Importantly, both nations consider international students a solution to current and projected skill shortages. International students are often considered ideal migrants, possessing local qualifications along with a degree acculturation and language skills (IOM, 2012). The Canadian Experience Class, that has pledged to double the number of international students by 2020, includes allowing the work experience gained by international students as one strategy for meeting the criteria for permanent residence status (Bradshaw, 2013). However, despite the optimistic projections for this program, in 2010 the number of successful student applications was under 4,000, far lower than expected, indicating that international students were facing challenges accessing this program (CBIE, 2013). Understanding the issues surrounding international students and employment is closely linked to both nations' continued success in the international education sector that has broad, long term, social and economic implications.

## LITERATURE REVIEW

For the current generation of international students and their families, global career and mobility opportunities are driving factors in their choice of study destination (Gribble & Blackmore, 2012; Xiang & Shen, 2009). Whether they are planning to remain in the host country or return home, acquiring overseas work experience to complement their foreign credential has become a key goal for many international students (Gribble & Blackmore, 2012; Li & Yang, 2013). For host countries, the economic value of international students is often considerable and in many cases domestic universities rely heavily on revenue from international students. International education is Australia's biggest service export contributing \$AU19 billion in export income to the economy in 2015 (ICEF, 2016). In 2014, Canada hosted over 336,000 international students at all levels of study, representing a growth rate of 83% since 2008 (CBIE, 2014). It is estimated that these students contributed approximately \$CAN8 billion to local economies across the country through fees for tuition, accommodation, transportation and other expenditures and 81,000 Canadian jobs were sustained in every region of the country thanks to the activities of international students (CBIE, 2014). There are also considerable social and cultural

benefits associated with international education, including opportunities for deep global engagement (McRae and Ramji, 2011).

The link between relevant work experience and graduate employment outcomes has led to growing interest in work-integrated learning (WIL) and how it may be used to enhance the employment outcomes of international students. While WIL has long been a key element of many university programs, there is a growing interest in WIL which is seen by universities as a valid pedagogy and as a means to respond to demands by employers for work-ready graduates. Importantly, students are seeking a return on investment and WIL is seen to provide critical employable knowledge and skills (Patrick, Peach et al. 2009).

While research on WIL is extensive, there is relatively little published research on the specific issues relating to international students. Previous international education research has focused largely on the recruitment and teaching of international students, their adaptation to the host university and lived experiences, identity and security needs (Bourdieu, 1986; Brooks & Waters, 2011; Marginson, Nyland, Sawir, & Forbes-Mewett, 2010; Tran, 2011) and the need to both localize and contextualize learning through the internationalization of the curriculum (Jones, 2010; Leask, 2009). While there is little research specifically on international students and WIL, the topic has been flagged as a priority by a number of experts in the field and one that requires further examination (CBIE 2014, Gribble 2014). Theoretically, the study utilized Bourdieu's notion of different forms of capital (cultural, economic, social) to understand how WIL is valued relative to other ways of considering employability and the production of a global work habitus (Bourdieu, 1986). Bourdieu offers significant tools to conceptualize the role of universities in the production of a habitus of graduate employability within specific disciplinary subfields of the field of higher education. Universities can enhance students' cultural and individual dispositions in terms of particular ways of valuing, thinking and doing. The project draws on extant research and prior findings of the research team in both areas of WIL and international education to better understand why WIL is increasingly important to international students, their potential employers and government and what universities can do to enhance the student experience. WIL is where the fields of education, employment and policy intersect for students.

## DESIGN, METHODS AND PROCEDURE

This study built on the research team's prior studies of international students and employment (Blackmore et al., 2014; Gribble, 2014; Gribble, 2015; McRae, 2013; McRae & Ramji, 2011; Murray, Gribble, Blackmore, & Hall, 2012) that identified barriers to participation in WIL, dissatisfaction with WIL programming as key issues for international students, and the potential gains to be had by organizations that hire international WIL students. The study investigated:

1. The barriers to participation in WIL faced by international students studying in Australian and Canadian universities;
2. The perceptions that international students have of their WIL experiences in Australia and Canada;
3. How participation in WIL contributes to international students' attainment of graduate outcomes and what challenges are faced in doing so.

A significant feature of this study is the comparative dimension. Canada and Australia are ideally suited to a comparative study of this nature. Both nations are key players in the international education sector with Australia attracting 6% of the world's globally mobile students followed by Canada which attracts 5% (IIE, 2013). Importantly, both nations have developed policy designed to facilitate the migration of international graduates as a way of addressing skill shortages and changing demographic patterns (Gribble & Blackmore, 2012; Hawthorne, 2010; IOM, 2012). Both nations have strong connections to Asia, the source region for the majority of international students. Trade and investment ties with Asia have underpinned Australia's prosperity with APEC economies accounting for nearly 70 per cent of Australia's total trade in goods and services (DFAT, 2014). British Columbia has strong social and economic connections to the Asia-Pacific through its Asia-Pacific Initiative launched in 2007, with the expressed strategy of "developing and attracting a labor force that has Pacific Century Skills" (BC Ministry of Jobs, Tourism and Skills training, 2014). This study provided key insights into institutional

approaches to facilitating WIL engagement among international students in the two countries. In addition, it provided a baseline study for further comparative investigations of key providers of international education, such as the UK and USA.

The case study method was selected for this study as it provides the necessary framework for in depth study of a particular situation rather than broad statistical analysis, given that the issue of WIL has been identified in prior research. Given the limited amount of published research about WIL, this study aimed to deepen understandings of the barriers for international students with regard to WIL, their perceptions of the WIL experience and the attainment of graduate outcomes resulting from WIL. In-depth qualitative analysis will provide rich understandings as to attitudes and perceptions, what is valued and why with regard to WIL and employability. These are key issues surrounding international students and WIL.

Undergraduate international students and WIL program coordinators were selected from Deakin University in Australia and the University of Victoria in Canada.

### *Sampling*

International students from a range of program areas that have WIL programs at both institutions were invited to participate in the study. A total of 14 students were interviewed, 8 in Canada and 6 in Australia. Students came from the following disciplines: Engineering, Information Technology, Business and Economics and Health Sciences. Each student was interviewed prior to beginning a WIL experience and again after having completed a WIL experience. 14 WIL academic program coordinators from different discipline areas at each university were also be interviewed.

### *Instrumentation*

Focus group discussions were held with the international students and WIL program coordinators. Open ended questions were asked pertaining to the research questions. Discussion was encouraged and facilitated to enable a comprehensive exploration of the topic.

### *Data Collection and Analysis*

The focus group sessions and interviews were recorded and transcribed. Narrative analysis of the transcriptions was used to identify responses, compare and contrast the findings from the WIL group and to develop themes. To ensure inter-rater reliability, each researcher coded their interviews and then exchange uncoded transcriptions to the partner for a second independent coding.

## FINDINGS

The findings reported in this paper are preliminary in that they capture the results only from the interviews of students prior to their WIL experience and their coordinators. However, in the Canadian case study, most of the WIL students had already carried out a WIL placement and were ready to embark on an additional experience. As a result, they were reflecting on their experience as well as anticipating their upcoming work term, while in the Australian case-study students discussed their motivations for participating in WIL. Final results capturing all of the post-WIL interviews will be released in a subsequent paper. These initial findings, however can be categorized as benefits and challenges of WIL experiences as perceived by the WIL students and their coordinators.

## BENEFITS

Both the Canadian and Australian students identified gaining cultural understanding, such as knowledge of local business practices, as a key benefit of WIL. Acquiring an understanding of how workplaces operate in the host country is critical for international students who hope to transition into the local labor market after graduating (AUIDF, 2013; Blackmore et al; 2014; Tadros, 2014) as well as for students who intend to return to their home country (Hao et al., 2015). Increasingly, employers in key source countries are seeking graduates with a global

competencies and having participated in a WIL experience as part of their overseas study experiences can be a key advantage in increasingly competitive labor markets. Obtaining local work experience was a strong benefit identified by both groups of students, as summarized by one of the WIL students studying in Australia:

I will have real world experience and most of the employers in Australia what they want from an international student is Australian experience. Even after ten years of experience in India you have to start from scratch in Australia.

Many international students struggle to establish meaningful relationships with domestic students while studying (Arkoudis et al., 2013; Blackmore et al., 2014; Leask, 2009). However, participating in a WIL experience can provide both exposure to local workplace culture and the opportunity to engage with the host country community which is highly valued by international students. As one student in Canada commented:

Back in school we have a little circle of the similar culture people get together, but for the co-op it's about really adapting to the work culture and how to get along with your colleagues and peers.

The other critical factor impacting on international students' capacity to secure work placements is their lack of local networks. 'Social capital' refers to the networks and relationships between people which, in sum, constitute a group (Bourdieu 1986, 248). Possession of social capital allows a group member to draw on the resources available from relationships within the group, particularly from group members who are richly endowed with other kinds of capital (economic and cultural). Much has been written on the importance of networks in the job seeking process (e.g., Wanberg, 2012; Bramoullé & Saint-Paul, 2010). However, for international students, lack of local networks acts as a barrier to both obtaining work experience placements and graduate employment. For international students, participation in WIL provides international students with the opportunity to create country-specific and professional networks that may have long term career advantages. This was a benefit identified by the WIL coordinators in Canada:

So it's usually I think the network that they develop of people that know that they can do the job, they have confidence that they can do the job, that's going to benefit them. Engineering networks are usually pretty tight. Developer networks are usually--like everybody knows someone who works with somebody else.

Participating in a WIL experience at a Canadian or Australian company was considered more advantageous than having work experience from the host country or company that was not recognizable to a Canadian employer as explains this WIL coordinator in Canada:

The students that come from international locations will get the documentation and accreditation from an engineering institution and have the co-op work experience. So they will get a job in a Canadian company far easier than the engineers (with foreign credentials).

In the Australian case-study, some student spoke of international experience not being recognized or valued by Australian employers. While the Australian government exhorts the importance of boosting knowledge of Asian culture, language and business practices and creating and foster links with the Asian region (Henry, 2015), many employers still emphasize graduates having local work experience, as was experience of this international student studying information technology in Australia:

I will have real world experience and most of the employers in Australia what they want from an international student is Australian experience. Even after ten years of experience in India you have to start from scratch in Australia

While some employers may be slow to recognize the benefits of hiring an international graduate, the international students interviewed in this study were often quick to point out the benefits of WIL are not only for the individual students. As many Australian and Canadian companies seek expand and deepen their connections with Asia, knowledge of Asian culture and business practices is critical, along with personal relationships and connections (AUSCAN Forum, 2015). The WIL students studying in Canada articulated the benefit of being able



to add value to Canadian companies and companies in their home country as a result of their connections to and understanding of other cultures.

We have several companies interested in us from China and I am the only one who speaks Mandarin and that could be a bonus for me and I can add value to this company. Business Student, Canada.

It's a huge advantage if you're going to work in another country I feel, especially the one where you grew up. For me India, if I show them that I have been in an international setting and have added value to such a company, that would be a huge advantage. Computer Science Student, Canada

In the Canadian context, the students were all part of cooperative education in which all work terms are paid an average of \$2500 (Can) per month. As a result, the students studying in Canada pinpointed the benefit of being able to earn money during their work terms, although it was noted that money was not the sole driver to their participation.

I think the money definitely helps being an international student, because you pay a lot more, but honestly I would have still opted for a co-op even if it wasn't paid.

The WIL experience also proved to be a reality check and horizon expander for the students. The experience provides students with the opportunity to test-drive their chosen profession and in some cases, led students to change course or revise their career goals as was the case for this international student studying computer science in Canada:

My passion honestly does not lie in programming, but using programming to do something like offering open courses and online learning management systems. International student Canada

For other students, the WIL experience provided the opportunity to further refine their career goals and allowed them to develop a clearer idea of what they wanted to do in the future: As described by a student studying in Canada:

I feel like my co-op helps me to define which is the knowledge I want to learn...I wasn't thinking about doing a master degree, but I feel like I still need to learn a lot of stuff and I have the intention to complete a master degree after a couple of years.

Participating in WIL can be daunting for international students who may have had limited work experience and may harbor concerns about their English language competency and capacity to perform in the workplace. However, both Canadian and Australian interviewees commented on the positive influence that WIL has on students' level of confidence and ability to take initiative. As explained by an Australian lecturer:

Often they're very shy. But by the time they've done the placement, they really come out of their shell.

The final benefit identified in this study was that of easing the path to immigration into both Australia and Canada. Without local work experience, many international students will struggle to obtain permanent residency in host country. In the case of Australia, the introduction of the post study work visa provides international students with an important opportunity to test the labor market which is likely to boost their chances of obtaining permanent residency (Blackmore, 2014). Of the over 339,000 students that came to Canada in 2014, nearly two-thirds plan to stay and work in Canada (CBIE, 2015)

Having relevant host country work experience advantages international students intending to transition into the Canadian or Australian labor market. As this WIL coordinator explains, many international students intend to remain in Canada and seek employment after graduating:

There are ones that do come straight out of high school, they do want to stay and in fact, some of them want to do work terms in China because they've never worked in China and they want that experience. But then they also decide after that experience that they want to live and work in Canada.

## CHALLENGES

English language proficiency (ELP) has been identified as a key barrier to workplace participation for international graduates (Arkoudis et al., 2009, Birrell and Healy 2008; Blackmore et al., 2014). Many international students lack the ELP necessary required in Australian and Canadian workplaces (Arthur & Flynn, 2011; Gribble, 2014). Employers are often unwilling to recruit international graduates due to concerns surrounding ELP (Blackmore et al., 2014). Often international students lack opportunities to engage with local students and the broader community and revert to mixing with other international students, often from the same language and cultural background (Arkoudis et al., 2013; Leask, 2009; Sawir et al., 2008). In this study, ELP was identified as a key challenge by the students and the institutional staff. While WIL offers students an important opportunity to engage with the host country community and develop both their language proficiency and cultural knowledge, it can also pose challenges to those students who may be struggling with these areas.

This international student in Canada, identified language and cultural issues as a challenge during both the application stage as well as during her placement:

I have several interviews and I think my words has been interpreted in a different way than what I was thinking, So that could be a language issue or that could be a culture issue...And after I got the job I feel like this is an entirely different cultural environment for me and it's very different from doing school here, because when I do school in UVic I still hang out with Chinese students and I don't communicate with Canadian students much. But I was the only Chinese in my company.

Managing the expectations of international students was also identified as a challenge by WIL coordinators in both Canada and Australia. That is, the very dispositions that led students to aspire to be educated internationally had to be modified and adjust to accommodate the conditions of the Australian and Canadian workplace. This finding is echoed in other research suggesting that unrealistic expectations are a barrier to graduates success in the labor market (Patton, 2009; UNESCO, 2012). In this study WIL academics and staff reported that some international students may have unrealistic expectations about the type of work they will do as part of placement. Other students may not appreciate their role in both procuring and preparing for placements. As noted by this WIL coordinator in Canada, staff must learn to manage the expectations of students from certain cultural backgrounds in order to ensure successful WIL placements:

I have quite a few Nigerian students that I work with, and for that particular group the expectation is quite different. They're coming from extremely wealthy families in order to be here...and their expectations are far above and beyond.

The geographic location was noted as another challenge in both the Australian and Canadian case-studies. With growing numbers of students participating in WIL, the likelihood of students needing to travel for their placements also increases. Moreover, some placements are more likely to be located on the outskirts of cities in industrial areas. In the Canadian case-study, it is sometimes a requirement to re-locate for a WIL placement as was the experience of this student studying in Canada had to re-locate to a city an hour's flight away from the location of the university.

The thing is if you want a job and never had a job and you really want the experience, you should probably let go of Victoria and go somewhere far. So in my case, I got the job, I knew it was an hour's flight away, it's not a big deal. I'll go there...it'll be cheap, I meet other people

In the Australian case study, students from certain discipline areas such as Engineering or Food Science are more likely to be placed in workplaces on the outskirts where public transit is not always an option as noted by this Australian lecturer.

A lot of industries are located in industrial estates. So the students have to be able to drive themselves to these places because transport is a problem.

Both Canadian and Australian university staff identified the sourcing of placements for international students as a significant challenge. In the Australian case-study, there is the expectation in many discipline areas that students find their own placement. The rationale is that going out and finding a placement in many ways replicates the job seeking experience and provides students with important skills. Students who have worked hard to find their own placement also have more sense of ownership and commitment to succeeding in the placement (Gribble et al., 2015). In addition, resourcing constraints mean that locating a placement for every student impractical. However, for international students, who often lack the cultural capital, securing a placement can be challenging leading some university staff, such as this Australian WIL coordinator, advocating additional support for international student:

The university can't find enough places for obviously every student, so there is still a big onus on well you'll just have to look for your own one. And like I said, I understand you can't get a placement for everyone, I'm not suggesting that, but I think that the university also needs to support those students that can't. They're not on a level playing field.

Some international students arrive with limited life experience compared with their Australian and Canadian counterparts. A Chinese student studying in Canada talked about how difficult it was to compete for positions based on prior experience when obtaining such experiences were not a regular part of a Chinese student's activity, resulting in what the students described as "empty resume". In China, the focus is on achieving high academic results and Chinese school students are encouraged to prioritize study over other activities (Tan, 2012). As a result, many international students lack the extracurricular experiences that are increasingly valued by employers, as this international student in Canada explains:

In China we don't have the culture to volunteer from 12 or 13 years old. In Canada the high school students all have work experience or volunteer experience. I think a lot of Chinese high schools don't have those experiences to put on their resume. When I first get into the program and I showed my resume to my co-op coordinator and he says it's almost empty. What did you do in high school? I said 'study'. Other than that, nothing really.

In response to the challenge of finding placements for international students, a Canadian WIL coordinator mentions a strategy of reaching out to employers who themselves had been international student as a possible solution to this challenge. According to the WIL coordinator, these employers were more likely to empathize with the challenges faced by international students and offer them opportunities:

We do actively search for those opportunities because maybe it is with someone who was an international person themselves. They get it.

Finally, employer attitudes emerged as a significant barrier. The findings of this study echo the findings of other studies suggesting a preference among employers for local students due to concerns surrounding language and culture as well as visa practicalities (Blackmore et al., 2014). This Canadian WIL coordinator describes the hesitancy among employers to take on international students:

Key factor I would say is just not having any kind of work experience. So again, it probably impacts the international students more so than the domestic students, They're an unknown entity and I don't see a lot of companies just taking that extra step to say, "I'm going to take the international student over the unknown domestic student". They'll take the unknown domestic student first.

In the Australian case-study, one WIL academics suggested that discrimination against international students was prevalent in the Engineering profession in Australia and acts as a key barrier to WIL:

The general xenophobic mode, I guess, particularly in the engineering industry.

Workplace discrimination was also raised in relation to students' names and how having a non-English name impacted on students' success in workplace. The interviews suggested that international students experienced discrimination in the Canadian workplace and that Canadian employers preferred to recruit Canadian students.

In the Canadian context, the coordinators had conflicting views. This WIL coordinator thought the name should be changed to provide the students with the best chance of obtaining a WIL placement:

I'm finding if they have Chinese names or African names, and they might have a lot of qualifications, there is an assumption on the employer's part they they're not going to be able to fit into the work culture because of language. And so they're more likely to choose a domestic student, even if that domestic student is not as good. So we will coach some international students that are struggling, to take an English name. Word on the street in our programs is 'You have to have an English name'

In contrast, another WIL coordinator viewed a students' name as central to their identity and was reluctant to suggest students relinquish their name in order to boost their success in the Canadian workplace:

I don't coach my students to change their name because it's a loss of identity to me.

## CONCLUSION

The findings of this study revealed several areas where international students could benefit from some additional support such as having additional English language support, more encouragement to obtain additional experiences to strengthen their resumes and cultural training to help ease their transition to the workplace. Institutions need to factor in the additional time and effort required to both support and secure placements for these students which have resource implications. The students themselves identified the power of learning from successful peers and role models in the employer community.

There is significant scope to work with employers in order to promote the many benefits associated with a culturally diverse workforce (VECCI, 2015). While employers often espouse the advantages associated with a diverse workforce, there are indications that many are inclined to gravitate towards the familiar (Blackmore et al., 2014). A report by Diversity Council Australia found that Asian talent regularly experience bias and stereotyping, including about their cultural identity, leadership capability and English proficiency, with many organizations failing to leverage workforce cultural diversity to better service clients, particularly Asian markets (DCA, 2014)

Finally, a caution that each student and culture have their own unique characteristics and stereotyping or making assumptions about challenges should be checked.

## IMPLICATIONS

This project aimed to fill a critical knowledge gap by advancing theories in relation to international students and work-integrated learning. While there is a significant body of research in the fields of international education and work-integrated learning, there is an absence of research exploring the intersection between the two fields. The study contributed to the advancement of knowledge in both fields by exploring the emerging issue of work-integrated learning and international students and offered considerable benefit to the university sector, employers, and international students. Deeper understanding of the barriers to participation is likely to lead to improved graduate employment outcomes and ensure that the labor market benefits from a supply of graduates with the necessary knowledge, skills and attributes. Greater knowledge of how universities can enhance the employability of international graduates will enhance the value of host country degrees ensure nations continue to reap the social and economic benefits associated with a robust international education sector. It will help host country universities and governments fulfil their ethical commitment by ensuring international students are able to acquire key graduate outcomes, providing international students and their families with a return on investment.

## LIMITATIONS

The study only considered the views of students and WIL program coordinators from Deakin and University of Victoria. This poses the potential limitation that perceptions of barriers to and participation in WIL might be unique to these contexts.

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# Bridging the Gap Through Alumni Mentors

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## ABSTRACT

This paper examines the synergy of actively engaging three key stakeholder groups (scholars, sponsors and alumni) in the development and enhancement of the professional identity of Co-op scholars, while bridging the gap between alumni and Co-op sponsor, through the vehicle of our Alumni Mentors Program. The Alumni Mentors Program is pairing first year scholars in the Co-op Program with Co-op alumni with a view to:

- continuing our professional development of Co-op alumni
- successfully bridging the gap between being a Co-op scholar and moving into a position to influence Co-op sponsorship
- enriching the experience and professional development/identity of each new cohort of Co-op scholars in a unique way

Participants of the program were surveyed to gain their insights on the structure, timing, and methods of the initiative. There were reported benefits of the Alumni Mentors Program to both scholars and alumni. These were identified by current scholars as an increased awareness of the industry and clarity on the profession they were entering, as well as expectations for placement; and by alumni as an opportunity to remain involved and continue their professional development in increasingly flat organizational structures, particularly by those in the early stages of their career development (3-8 years since graduation) through mentoring and sharing their insights. The data collected, provides strong evidence for the continuation of the program in its current format, and the expansion to include scholars in later stages of their degree, which would enable greater alumni engagement.

## INTRODUCTION

The UNSW Co-op Program (the Program) is a scholarship which, in addition to providing financial support, has as its central aim the development of young professionals and future leaders, not just graduates at the end of a university degree. There are 24 streams available in the fields of Business, Science, Engineering and Built Environment. Further to the annual scholarship of \$18,200(AUD), paid for four years, all UNSW Co-op scholars gain valuable industry experience during the course of their degree, on multiple (3 or 4) placements, totaling up to eighteen months experience, with leading companies. These Industry Training placements provide both invaluable insight into the real workplace and industry, and serve to put Co-op graduates ahead of their competition when it comes to graduate recruitment.

This paper outlines the existing professional development program, and how the Co-op Alumni Mentors initiative enriches this, by engaging three key stakeholder groups (scholars, alumni and sponsors) in the development and enhancement of "Professional Identity". These benefits extend beyond just the obvious scholars and sponsors, to the participating alumni.

The Professional Development & Leadership program that forms part of the Co-op Program is designed to enhance the industry experience in the Program and harness the full value of these experiences, by further developing the professional skills and leadership capabilities of all Co-op scholars. Focusing predominately on soft-skills, to complement the workplace experience, it incorporates a series of different sessions and workshops attended by scholars throughout their degree.

Comprehensive in structure, the objective of the Professional Development & Leadership program is to introduce scholars to the concepts and essential skills of leadership, teamwork, communication and professional

networking. The Professional Development modules commence on day 1 of the Program and continue through to graduation year. They are interwoven through the degree to complement the stage of academic development and industry understanding, to ensure scholars have a developed sense of professionalism and understanding of the workplace and themselves by the time they graduate. The first year scholars' Professional Development & Leadership program is by necessity extensive, incorporating a variety of soft skill development areas to enable scholars to make the most of their industry placement (Appendix 1. *"Outline of Professional Development & Leadership program of first year scholars"*)

In addition to the professional development of current scholars, in 2013, the 25th year of the Program, we created a formal online platform for Co-op alumni to interact with each other and engage with us around how they wanted to remain involved, in an ongoing and structured way, with the Program. Many highlighted a desire to "be involved" but were unsure how they could be as they were not in a position to sponsor or decide sponsorship of the program (yet). From a range of options suggested, mentoring current Co-op scholars was a clear winner.

The Program has, since inception, incorporated not only academic but industry mentors into the program through structured channels. The benefit of mentoring is widely recognized, with many studies referencing the research carried out on the outcomes, particularly in relation to academic mentors and the role they play in enhancing the academic career of a student. Kram (1985), along with many others in the field of career research, holds that supportive developmental relationships make major contributions to organizational and individual success.

For each Co-op scholar there is an Academic Coordinator or mentor who can offer advice and support throughout the scholar's degree. These mentors provide guidance on academic areas, from majors and subject selection to honors/research topics and supervisor possibilities. Their role also includes visiting scholars on placement and attending the scholars' end of Industry Training presentation, providing an important link between the work completed on placement and the academic sphere.

The existence of industry mentors and buddies in placement workplaces plays an important role in providing scholars with specific and particular insights on that company, and are typically related to the work and roles or responsibilities of the placement, team or industry. Of course in some instances they also provide broader ongoing insights for a scholar.

One of the most important functions of mentoring is the cultivation of professional identity (Kram, 1985). Professional identity, defined as "the relatively stable and enduring constellation of attributes, beliefs, values, motives, and experiences in terms of which people define themselves in a professional role" (Ibarra, 1999, pp.764-765; Schein, 1978) was identified in previous work (Skinner, Carey, & Lucien, 2013) as a key, enduring benefit of the UNSW Co-op Program, as recognized by alumni of the Program.

Increasingly research around the notion of the development of professional identity suggests that a key factor may be the variety of advice an individual receives over the course of their career. Higgins' (2001) research further proposes that diversity in developmental mentors is associated with increased career-related cognitive flexibility and career change. It is in this concept of professional identity development, the diversity of influencers and mentors, and its ongoing importance through a person's entire career, that we perceived an area of real growth and improvement for both our scholars and alumni, thus creating the Co-op Alumni Mentors program. We believe it directly contributes to the longer-term competencies and potential of both current scholars and alumni.

This paper first describes the structure of the Alumni Mentors Initiative and then analyses the results of the participant's survey from both 2014 and 2015. The results show the benefits of the initiative for scholars, sponsors, and alumni. Furthermore, the results help highlight ideas for future improvements to the mentoring program that will both enhance the scholar and alumni experience, and may also increase the conversion of alumni to sponsor.



## METHOD

This section contains a description of the mentoring program structure, timing and support.

### *Participants*

In the first year of the program, 2014, there were 72 scholars to pair with mentors. Utilizing the newly created Alumni platform, invitations to participate were sent to those who had indicated an interest in mentoring current scholars. The initial canvas was quite successful, bringing more than 70% of the mentors within days of the email, reinforcing the alumni enthusiasm for the experience. Our final numbers, fell just short of the total number required, and meant we paired some mentors with more than one scholar. In 2015 new scholar numbers increased to 83 scholars, mentors to 77(Appendix 2 "*Scholar Numbers by Program Sector*").

Another organizational consideration was the more recently established streams in the program, such as Computer Science and Software Engineering. These were areas of distinct industry growth over the last 5-7 years, resulting in an increase in sponsorship and larger current scholar cohort, but few if any alumni from the program. In these circumstances we utilized like streams or disciplines to recruit mentors for those scholars. Although there is something of a gap in career aspirations and directly applicable experience, we were confident there was still much the scholar could gain from the mentor relationship with regard professional behavior, workplace expectations, and maximizing the opportunities provided through industry placement.

### *Timing*

In developing the Alumni Mentors program particular attention was given to the structure and timing of formalized activities, with the key aim being for each scholar to be mentored prior to their first industry placement -in the interests of program cohesion, the first "contact" was set for October.

### *Format*

To commence the program and provide a further networking opportunity for both scholars and alumni, as well as provide some structure in what would be a very flexible program, we hosted a "speed-mentoring" evening, arranging all mentors and scholars in small groups allowing them to benefit from shared questions, and varied insights and perspectives. The groups rotated in a structured way, scholars moving after 15 minutes to another pod or group, through four rotations.

Due to time and geographical constraints some mentors were not Sydney-based and therefore unable to physically meet with their mentee, though still very keen to mentor. While cognizant of the fact that virtual "meetings" would make for a slightly different mentoring dynamic, we determined this was outweighed by the positive aspects of developing mentor relationships with alumni irrespective of geography and physical space, which is made possible through the internet and other computer-mediated communication (Ensher, Heun, & Blanchard, 2003). Thus, our guidelines stipulated that a "meeting" could be in-person or virtual (skype, email, phone etc.) as best suited the partnership, and could of course be ongoing, if agreed by both parties.

### *Support and Training*

Forret & Parise (2008) amongst others, highlighted that "inadequate training of the participants can cause frustration" and so mentors as well as mentees require guidance and training, which should include "an explanation of the objectives of the program, a discussion of the career and psychosocial functions, tactical suggestions on individual goal setting, and guidance on how often to meet". Predetermined aims and guidelines (Appendix 3 "*Mentoring Program Guidelines distributed to alumni and scholars*", Appendix 4 "*Mentor Mind Map*") were distributed to both parties prior to the speed-mentoring session, requesting that mentors be available to "meet" with scholars (in person or virtually) 1-2 times following the "speed-mentoring" and prior to the first industry placement.

## RESULTS AND ANALYSIS

Following the pilot program in 2014 and again after the 2015 program, we surveyed all scholars and mentors to gain insights into the value of the program for both alumni and scholar. Feedback was positive on both the “speed-mentoring” and 1:1 mentor opportunities.

In 2014 39 % of partnerships met in person, 26% of partnerships met virtually, and 35% combined face-to-face with virtual meetings to further continue the partnership. Respondents in the 2015 survey show a slight increase in the virtual interaction to almost equal in-person interaction (35% vs 34%), and those with a combination of interactions at 31%.

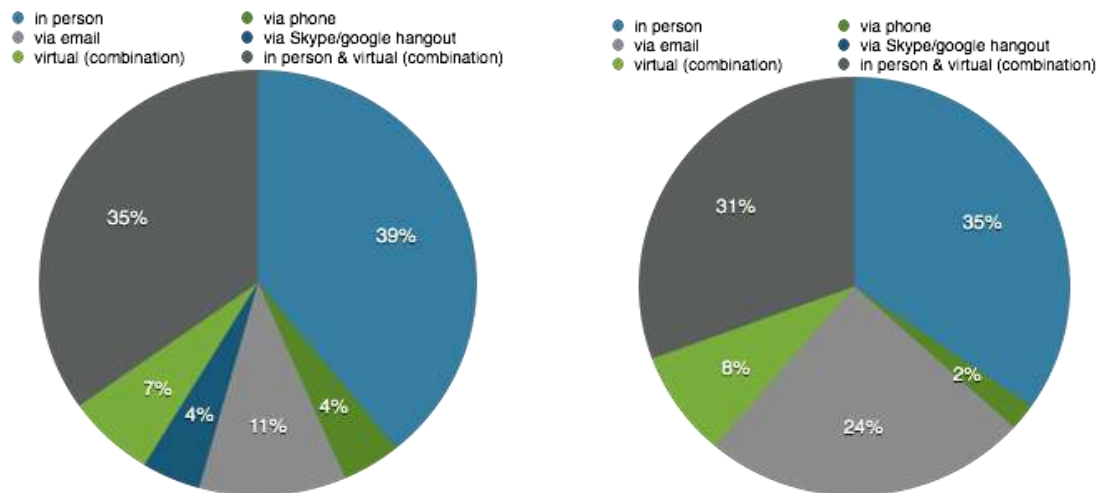


FIGURE 1: a) 2014 Alumni Mentors Initiative Survey, and b) 2015 Alumni Mentors Initiative Survey

The feedback received reflected that as alumni of the Program these young professionals are in a unique position to provide insights to current scholars on their experience as a scholar and in their early career, as well as current trends, conditions and opportunities in industry. By sharing their observations and experiences gained both during their time in the Program and in graduate employment they motivate the scholars to learn and make the most of their placements and the opportunities of the Program, to maximize their own potential and set themselves on the best possible trajectory career wise.

In contrast to the professional mentors of their industry placements, the scholars’ relationships with the alumni mentors are able to be broader, more tailored to the scholars’ own professional identity, and with “no strings attached”.

“I think it has been great to have a more casual person whom we can ask questions, and get some support in regards to our first placement.” (2014 Alumni Mentors Initiative Survey, 2014)

Mentor partnerships which were face to face meetings/interactions were largely very positive. Those partnerships which utilized virtual mediums only had mixed reactions, though the concerns raised were in keeping with what might be expected and as addressed by Ensher et al. (2003) with relation to miscommunication, timing and a slower developing relationship. Partnerships which combined both styles of interaction were also very positive and appear to be more likely to continue beyond the stipulated/requisite timeframe. This again aligns with the research of Ensher, Heun, and Blanchard (2003), which advocates “that whenever possible mentors and protégés use multiple methods of contact in communicating with each other as a way to increase comfort level and learn about each other in multiple contexts.”

The flexible framework of the initiative, both in terms of modes of interaction and timing of the meetings, was highlighted as a key point of success from a number of alumni:

I thought the structure of the mentoring program was great. The flexibility in how people communicated meant that we were able to find what was most suitable for us. (2014 Alumni Mentors Initiative Survey, 2014)

In both years all scholars found great value in the speed-mentoring night, supporting the concept that at this early developmental stage it is beneficial to speak with and receive input from a variety of people.

I found it particularly useful because it didn't pigeon hole us to just meet our own mentor, so we were able to get a variety of experiences and opinions on industry. (2015 Alumni Mentors Initiative Survey, 2015)

It was great to hear about the success of older students in navigating the (changing) industry climate. (2014 Alumni Mentors Initiative Survey, 2014)

Although originally a concern, the instances of two scholars paired with one mentor did not prove to be to the detriment of either scholar or mentor experience, however in 2 "double-mentee" relationships there was noted a great difference in the engagement level, and the corresponding scholar feedback reflected this (one scholar deeming the program "extremely beneficial" while the other felt it was "somewhat useful"). It is of course possible that this could have been the outcome even in a 1:1 relationship.

As one of the selection criteria for admission into the UNSW Co-op Program is demonstrated broader school or community involvement, it is in the very nature of our alumni to "get involved" and "give back" where they can. This value does not seem to diminish in the years following their graduation from the Program, though naturally time and accessibility are factors for everyone. The age and experience of the Co-op Program alumni who took part in the two mentoring initiatives was widely varied, and thus they were in different stages of career development themselves and highlighted different aspects of interest/success in their feedback.

Fantastic initiative! As a mentor, I appreciate the opportunity to help someone and share my experiences with them. I'd forgotten how tough it is being out in the workforce for the first time ever, feeling like you're asking stupid questions. (2014 Alumni Mentors Initiative Survey, 2014)

Great initiative. Really looking forward to furthering the Co-op Program across all facets. (2015 Alumni Mentors Initiative Survey, 2015)

The mentoring program serves to continue the alumnus' engagement with and link to the Co-op Program in the years after leaving university. For those who are recent graduates or new alumni, the mentoring program gives them an opportunity to continue their professional development and leadership training even after graduating from the Program, something that is particularly important for those in graduate programs with flat organizational structures, which do not allow much management or oversight of others. Those for whom many years have passed since their graduation are equally as determined to give back to the program and experience that gave them so much. One scholar commented that their mentor (a 1989 commencing scholar) "has a deep insight in the industry and a wealth of advice on how to plan my future career pathways. He also gave me pointers on what to do and what to aim for in the first placement, ran me through basic business etiquette and things that he wished he had done whilst he was in the program." (2015 Alumni Mentors Initiative Survey, 2015)

The wish to convert alumni into sponsors or influencers in the decision to sponsor is also clear. The mentor initiative keeps the Program in the minds of companies even if they are not sponsoring a particular student cohort. As these alumni move into more senior, possibly signatory roles, they retain a very strong link with the Program and are confident of the talent pool of scholars present. In addition, as a benefit for both scholars and sponsors, it allows visibility of Co-op scholars to organizations that may not be sponsoring, which could lead to more and broader opportunities for Co-op Program graduates. Given the initiative's relative infancy this particular aspect will need to be monitored over time to understand if it has had the desired effect in conversion of alumnus to sponsor. In the first year, Alumni mentors working for current sponsor organizations made up

36% of the total number, while in the 2015 group that percentage rose to 53%. Although this was not a factor in targeting individuals as mentors, it did stand out when analyzing the data and will be interesting to monitor into the future whether those organizations not currently sponsors of the Program become involved subsequently.

Although the overall impact of the Alumni Mentoring initiative is seen to be very positive for all three stakeholder groups, there are naturally limitations and improvements or considerations for future iterations of the initiative. One aspect that is both a positive and potentially a complication is that the Co-op Program alumni are a very globally mobile and motivated group. The obvious positive is the global perspective available to the scholars mentored by alumni who are living and working overseas, but there are scholars who do not feel they gain as much from the mentoring partnership with no face-to-face meeting. These mentors are also unlikely to be able to attend and take part in the speed-mentoring evening, which makes their protégé feel less engaged when conversations naturally progress toward the close of the evening.

Another possible challenge was where there were mentors of a different discipline paired with scholars in some programs, most notably Computer Science or Software Engineering. However, this did not seem to detract from the initiative as, most notably the scholars' feedback on the variety and breadth of experience and advice they have received is very positive.

The program is really useful, not just for placement insights, but even more generally for shaping long-term goals and what I can do now to help me develop towards that area. I also really enjoy talking to someone who has been through the whole Co-op process; lessons he can pass on to me from his experience, that makes me feel more confident while on placement. (2014 Alumni Mentors Initiative Survey, 2014)

#### DISCUSSION AND CONCLUSION

We have found in the UNSW Co-op Alumni Mentors Program a vehicle for continuing meaningful engagement with program scholars, beyond their graduation and into their professional lives. It has served to not only enhance the existing Professional Development & Leadership program for scholars, but also allow further contribution to and development of the Professional Identity of program alumni. This additional and previously unexplored area of alumni development, though unexpected, is of great interest. The engagement of the key stakeholder groups has been critical to the success of the initiative, and the benefits of the program for all parties have ensured the program will continue and grow over the years to come. We are confident that having a tangible vehicle to regularly engage with alumni between the time of their graduation and their transition to senior roles will ultimately benefit the Co-op Program even more as time passes.

To further expand and develop this Alumni Mentors initiative we have a number of improvements in mind, including the addition of a formal catchup or wrap up event following the scholars' placements. We feel this could add to the sense of accomplishment for the alumni, and may increase the number of mentor partnerships that continue beyond the stipulated timeframe.

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## APPENDICES

### APPENDIX 1. "OUTLINE OF PROFESSIONAL DEVELOPMENT & LEADERSHIP PROGRAM OF FIRST YEAR SCHOLARS"

- ❖ Soft skills development workshop on first day at university, introduction to cohort and focus on networking. (O-week)
- ❖ Self-assessment - completed by scholars each year for them to focus deeply on their personal growth and development of key professional and leadership qualities
- ❖ Leadership Camp - 3 day program delivered off-campus explores further the notions of leadership and followship, teamwork and communication.
- ❖ Industry training workshop- focuses on professional communication, etiquette and ethics + input from sponsors and older scholars about expectations and how to make the most of the experience (held approximately 3 months before their first industry placement).
- ❖ Excel workshops - consistently highlighted across all sponsor groups as a key tool, and area of need, this workshop aims to equip scholars with a greater working understanding of Excel and its possible application across industry.
- ❖ Post placement reflection - group and individual format

### APPENDIX 2. "SCHOLAR NUMBERS BY PROGRAM SECTORS"

Scholar Numbers by Program Sectors	2014	2015
Business Programs	38	39
Technology Programs	26	29
Engineering/Science	8	15
<b>TOTAL</b>	<b>72</b>	<b>83</b>

### APPENDIX 3 "MENTORING PROGRAM GUIDELINES DISTRIBUTED TO ALUMNI AND SCHOLARS"

#### Co-op Alumni Mentoring Program

The mentoring program is designed to put first year Co-op scholars in contact with Co-op Alumni in their field, with the view to support scholars prior to their first industry placement.

This mentoring program aims to

- facilitate the sharing of knowledge between Co-op Program Alumni and current Co-op scholars in the program.
- To allow Alumni to share their unique experiences of the workplace on an Industry placement and their knowledge of their industry/sector.
- to allow current Co-op scholars to benefit from the experiences and wisdom of their predecessors in the Program, giving them a contact who can understand their position in the workplace and can help them to understand their industry.
- Bind Alumni more closely to the UNSW Co-op Program and offer them ongoing development and growth opportunities.

#### **The Mentoring Relationship**

Mentors are selected on the basis of their Co-op Program and work experience in relevant sectors, as well as their willingness to share their time, skills and experiences with a current scholar. Mentors are generally from the same or similar academic program as the scholars they are mentoring, and mentors/mentees are matched by the Co-op Program office.

#### **Role of Mentor**

The role of the mentor is to provide insights and act as a sounding board should the scholar have placement/industry related queries prior to beginning ITE1.

Objectives include assisting the student to:

- understand the nature of the work environment and how to be proactive
- develop an awareness of organizational norms, standards and values
- identify some of the keys to successful placement in an organization
- understand the importance of networks and how they work
- learn through constructive feedback, and how to seek this
- maintain confidentiality (professional and personal)
- put together a firm foundation/direction for their PDA for ITE1

### **Issues beyond the Mentoring Relationship**

Should scholars bring up problems that are outside the scope of the mentoring role and which may affect the successful outcome of the placement/Co-op relationship with a sponsor company, in the first instance mentors should encourage the scholar to contact the Co-op Program team (Scholar Manager or Industry liaison) as soon as possible. Alternatively they should advise the scholar if they are going to contact the Co-op team to discuss.

### **Mentors will benefit from:**

- Networking with other managers in the public and private sectors
- Knowing that their contribution will assist in the development of Co-op scholars and industry leaders
- Knowing that they have contributed to the goal of increasing the numbers of successful Co-op placements and thus strengthening the reputation of the program's Alumni.

### **Role of the Scholar**

A Co-op scholar actively seeks career development and feedback, is open to opportunity and willing to learn new skills. Scholars should appreciate that mentors volunteer their time and experience and that there may be occasions when they are not immediately available. To ensure the most benefit can be gained from their time with/speaking to their mentor it is advised they make notes/draw up an outline of what they would like to discuss at and get out of the meeting.

### **The responsibilities of a student include:**

- being proactive in the mentoring relationship and making contact with their mentors in the first instance
- accepting responsibility for their own goals, decisions and actions
- ensuring they continue to meet the requirements of being part of the Co-op Program.
- following the values and ethical standards of the corporate or public sector organizations in which they are placed
- appreciating the professional commitments of mentors
- being flexible
- maintaining confidentiality (personal and professional)
- keeping appointments and providing adequate notice if arrangements with mentors have to be postponed due to unforeseen circumstances.

### **Students will benefit from:**

- Role models who have been through the Co-op Program and understand the challenges/concerns involved in an industry placement
- Exposure to professional networks and professionals in their industry
- Seeking initial guidance and direction on making the most of an industry placement
- Having a sounding board for their goals and planning for their PDA .

### **Tangible Outcomes**

- Scholars are required to note 1-2 instances/examples of contact with their mentor and how it benefited them/helped them make the most of their first industry placement.
- Following their meeting/s with their mentor, scholars should be able to produce a draft document of their PDA to prepare for their ITE.

### **Co-op Program Mentoring Activities**

- **19<sup>th</sup> September 2014:** Allocation of Mentors to Scholars
- **14<sup>th</sup> October 2014** – Co-op Alumni Mentor and first year scholar meet and greet
- **November/December 2014:** First group of scholars begin summer placements (ACT/FIN/SEN/ELC/PHV/REN/CHM/INC/MEC/CIV/ENV/CON/PET/MIN/MSA)
- **January/February 2015:** Remaining Program scholars begin ITE1 (ACC/MKT/BIS/CIS)  
\*CMP Scholars do not commence ITE1 until S2, 2015
- **End of ITE presentation:** Mentors could be invited to end of ITE presentations on a case by case basis, as determined appropriate by sponsor company

#### APPENDIX 4 “MENTORING MIND MAP”

To ensure that both parties’ expectations are realistic and achievable and each has a similar understanding of the mentoring role we have created the following Mentoring Mind Map. The “Map” gives an idea of some of the topics/areas that might make up your conversations. Each mentoring partnership should discuss their personal objectives and how the mentor relationship works best for them.

When planning the meetings, consideration should be given to:

**Availability:** Time commitment and frequency of meetings – consider schedules and when you can both reasonably meet. It is a good idea for mentors and scholars to use the first session together to diarize any future meetings.

**Communication:** Will you communicate via the phone, email, and or face to-face meetings?

**Venues:** If face-to-face, will meetings be held at the mentor’s workplace and/or in other locations?







# The Classroom as a Think Tank using Active Small Groups and Authentic Exercises in an Advanced Writing Course

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## ABSTRACT

A recent Society of Human Resource Managers study conducted among 1,700 Human Resource managers across industries concluded that 49% of US employers believe that recent college graduates have not achieved competence in communication broadly and in writing specifically. The in-class format of an advanced writing course in Public Relations presented in this paper indicates that this proficiency gap can be ameliorated. The conceptual framework will contribute to thought leadership in the preparation of in-class experiential learning modules. An advanced writing course was reformatted to include an experiential learning module in each lecture after the professor assessed the students' lack of writing capacity and the heightened level of importance this skill holds in the workplace. A module series called *Writer's Bootcamp* was added to each lecture to stimulate student learning, engagement, and proficiency. Based on the reflection instrument fielded the last day of class, the experiential module was seen as engaging, powerful, and educational. Students scored the following outcomes with a strongly agree on a Likert scale: I developed written and oral communication skills, I acquired new knowledge, I developed skills in the art of collaboration, I developed confidence, I remember thinking more deeply and the experience led to my growth in writing. The method leveraged an active-student-team approach; using an authentic communication problem with a video stimulus. Teams had 30 minutes to solve the problem and recommend solutions. The remaining classmates reacted to the recommendations with feedback.

*Keywords: experiential learning, active small groups, authentic exercises, advanced writing*

## INTRODUCTION

This article examines how student learning in an advanced writing course accelerated when an active-small-group format was introduced in week seven of a traditional undergraduate 15-week semester. Students were juniors and seniors. Their writing samples, completed independently outside of class, were assessed during the first half of the semester and then separately during the second half of the semester so that two course content delivery methods could be assessed: lecture/discussion format for the first six classes and active-small-group format using authentic assignments for the remainder of the semester. The factors that contributed to successful learning episodes were analyzed via grades, verbal critical incident reports, professor observations, and a reflection exercise the last day of class. The student learning and writing samples improved remarkably, up 1.5 letter grades, during the last half of the semester as students engaged with each other and with the real-time business situation. The hypothesis is that both the course redesign (the classroom as a think tank versus a lecture hall) and the small group activities (the student as a critical thinker and proficient writer) led to a profound positive influence on student writing performance.

## HISTORY AND BACKGROUND

Communication skills, specifically effective written and oral communication for business, remain at the epicenter of the Public Relations professional's toolbox. The Public Relations Society of America (PRSA) defines 10 areas of knowledge, skills and abilities as necessary for success in the profession; among them is advanced communication skills (PRSA, 2015). Today, the Public Relations practitioner commands both traditional and new media tools to communicate quickly to broad global audiences or specific constituents. Content creation is in

demand, making effective content, which resonates with the target, highly valued. Practitioners who are driving the profession agree, "Learning how to grapple with and capitalize on the new ways people create and consume content is the newest challenge in PR." (Greene, 2016). Organizations are stating that new entrants into the workforce do not have writing proficiency. A 2015 Society for Human Resource Management (SHRM) study "Workplace Readiness and Skill Shortages" revealed that the types of basic skills that are lacking according to almost half (49%) of Human Resource managers across industries fall under the communication umbrella; 27% say applicants have insufficient skills in written communication and 22% say applicants lack basic skills in oral communication. A preceding SHRM study conducted in 2009 with a consortium titled "The Ill-Prepared US Workforce: The Gap between Need and Provision" found that both written and oral communication skills were seen as high need, yet were skills that workplace training had little or no arrangement. More than half of HR managers (68%) asserted that those skills that were high need with no employer-based training were: written communication (37%) and oral communication (31%). This places a spotlight on the heightened need for focused communication learning, both written and oral, at the college level. As the field of Public Relations places enormous weight on effective communication, a rigorous focus is called for.

### THEORETIC FRAMEWORK

The theory of small group learning, which includes the benefits of collaborative learning and participation, and the theory of social interdependence collectively help to explain the increase in writing proficiency in an advanced writing course. Over half a century of research concludes that active-small-group learning results in students learning more because they are facilitating their own understanding (Barkley, Cross, Major, 2005). Evidence shows that students who learn together in small groups exhibit higher academic achievement, motivation, and satisfaction than those who don't. Collaborative learning puts into practice the major conclusion from learning theory that students must be actively engaged in building their own minds (Barkley et al., 2005). Collaborative learning takes place when students work together to achieve shared learning goals (Barkley et al., 2005). The benefits of collaborative learning include content mastery, development of critical thinking and problem solving skills, and improved interpersonal skills (Johnson, Johnson, & Smith, 1998; Johnson & Johnson, 1999).

Social interdependence theory states that through a shared goal, effective teams learn to work together for the overall success of the group. Learning is facilitated when group members strive to motivate and support each other. These cooperative efforts, known as promotive interaction, are an essential element of the collaborative learning process (Johnson & Johnson, 1999). Thus, working with others to solve a common problem, explaining one's viewpoint to others, and coaching fellow group members are strategies that build strong cognitive connections. Johnson, in his work on new developments in social interdependence theory, discusses effective cooperation and using pedagogy to build a cooperative community. Interclass interdependence may be created through organizing into a neighborhood (Johnson, 2003). A stimulating learning environment, one that promotes participation, can make quite an impact on the undergraduate college student. There is strong evidence that participation leads to a high quality learning environment where engagement, motivation, and outcomes are more likely to be achieved. In 2010, Rocca reports the benefits of participation include: bringing life to the classroom, higher levels of motivation and learning, critical thinking, self-reported gains in character, less memorization and more interpretation and improvement in communication skills (Rocca, 2010). In McRae's work, the importance of social relationships and "taking a sociocultural view provides a broad scope for considering how transformational learning occurs" supports the experiential module. McRae's model expanded thinking by including the supportive environment, friends and family, which creates the positive emotional state that nurtures transformation (McRae, 2015).

### THE EXPERIENTIAL MODULE

During the first half of the semester, students worked individually on assignments primarily out of class and were turning in lackluster work. Lectures and templates were seen to be largely void of student engagement and grades were in the D range. The advanced writing course was reformatted after it became evident that there was

a lack of student readiness for an advanced writing course in Public Relations. An experiential framework called Writer's Bootcamp was added to each remaining lecture beginning on class seven to attempt to stimulate student engagement, learning and writing proficiency. Students were given ample time to discuss the new format and to ask questions. Writer's Bootcamp utilized active-small-groups of students (three or four) to choose a Public Relations tool to write a response to an authentic assignment. This method became a continuous element of the course. The components of Writer's Bootcamp, outlined below, build on each other to create the expectation of writing proficiency.

#### *Differences Between High School and College Writing*

The University of Chicago outlines some differences between high school and college writing. "It is not just a matter of higher standards: often, what instructors are asking for is not just something *better*, but something *different*. If that's the case, success is not the result of merely being more intelligent or more skillful at doing what the student did in high school. Instead, the student will need to direct new skills and intelligence to a new task." With that understood, it was imperative to provide students with the new focus. The framework became practitioner's work.

#### *Student Readiness*

For the most part, the students were not ready to complete the preliminary assignments (write a lead, write a headline, write a press release etc.) at an advanced beginner level. The students admitted that they were not at all practiced or confident in their writing ability. They were, in fact, accustomed to reacting to tracked edits on a first draft followed by a myriad of re-edited drafts provided by the professor. The final piece was hardly their work, they were not at a level to begin writing substantive, thoughtful, and meticulous Public Relations documents.

#### *Writing for Public Relations: The PR Toolbox*

The Public Relations toolbox for the purposes of this course consists of: Press Release, Lead, Fact Sheet, Backgrounder, Paid Marketing Ad, Public Service Announcement, Video News Releases, Search Engine Optimization, Internal Channels, Contests and Partnership Collaboration.

#### *Motivation to Write*

The students recognize the need to write well as essential in a PR major and they believe that practitioners require effective writing as critical in the field. Writing assignments were completed in class using a team approach. Small group learning and social interdependence theory explain the trust, excitement and motivation that fostered improved writing proficiency.

#### *The Formalization of Bootcamp: Active Small Groups and the Authentic Exercise*

Active teams composed of three or four students were chosen based on diversity of academic background. The active-student-team approach was designed to enhance discussion, creativity, collaboration, and proficiency. This was a successful element in vesting the students into the framework. The authentic exercise, chosen by the professor based on a real-time, engaging PR situation, changed every lecture. For example, the Marriott millionth mobile check-in was celebrated with a surprise lobby dance party. The student teams became Marriott's competitor and were asked to respond to the successful sweepstakes utilizing PR tools. Princess Cruises' strategy to obtain user generated content served as another example. Students were asked to use a PR tool to achieve the objective. The direction to each student team was that it was the PR department at the focal company and needed to meet and recommend how to handle the assigned situation. Based on the Educause Learning Initiative work conducted by Lombardi, student teams were directed to authentic learning activities to cultivate the kinds of portable skills that newcomers to any discipline have the most difficulty acquiring on their own: the judgment to distinguish reliable from unreliable information, the patience to follow longer arguments, the synthetic ability to recognize relevant patterns in unfamiliar contexts, and the flexibility to work across disciplinary and cultural boundaries to generate innovative solutions (Lombardi, 2007). The authenticity itself allowed for real-world

relevance, real-world tasks of public relations professionals, collaboration, reflection, and multiple interpretations and recommendations. After being briefed with a situation analysis and a video stimulus, teams were given 30 minutes to discuss and write an approach utilizing the most effective tool in the PR toolbox. The professor walked about the teams to coach and redirect as needed. Student teams had 15 minutes to present their work on the document camera to the rest of the class. The class reacted with feedback. The presentations were a key success factor for the framework. The professor conducted a thorough debriefing at the conclusion of all presentations to summarize learning and guide the concluding discussion.

#### *The Writer's Bootcamp Certificate*

In the spirit of reward, individual "I Survived Writer's Bootcamp" certificates were presented to each student at the end of the semester. The certificates were received well.

### RESEARCH METHOD

Three metrics were used to assess the impact of active learning in small groups in a writing course: critical incident reports, grades based on a programmatic writing rubric, and a reflection instrument.

**Critical Incident Reports**—Informal verbal reports were provided by students at the end of class four times during the last half of the semester. The questions discussed were: What action (if any) did anyone take that you found was most affirming/helpful? What action (if any) did anyone take that you found most puzzling/confusing? What was the most important information you learned during today's class?

**Grades based on the writing rubric used in the PR program**—Grades were assessed according to the following eight elements on a scale of exceptional to unacceptable; overall content and organization, writing organization and structure, tone of writing, sentence structure, word choice, grammar and spelling, application of AP style rules, and meeting the requirements.

**Reflection instrument**—Administered the last day of class, had 24 Likert- scale questions and 18 open ended questions. Students completed the anonymous instrument without the professor in the room, n=19.

### FINDINGS

#### *Critical Incident Reports*

Students found that working in active small groups on an authentic assignment to be presented to their peers before the end of class was affirming and helpful in developing their writing skills. They cared more about concise and accurate writing, the organization of their writing, word choice, and applying AP writing style. Most puzzling or disconcerting to them was the time (30 minutes) they were given to complete the assignment. As they became accustomed to the structure, they became more efficient. The most important information learned was the process of critical thinking before writing that resulted in making the care they put into the writing greater. The verbal findings clustered around three themes: (a) the authentic assignments helped them transfer what was learned to date to real-world situations. "I used more PR tools in this one class than in my total undergraduate career." (b) working together helped formulate ideas that the student may have struggled to come up with alone. "Pushing myself and my thoughts to the best possible limit had a great impact on me." "I developed both written and oral communication skills." (c) The suggestion of implementing Writer's Bootcamp (small group/authentic exercises) for the entire semester to give students more experience was unanimous. "I developed confidence and pride in my work". "The 2 ½ hour class flew by." Importantly, students very much enjoyed exploring the role of a practitioner on a real assignment and perhaps because of that, displayed a deeper emotional investment as they expressed specific feelings inside the Writer's Bootcamp that changed their thinking about writing.

### *Grades Based on the Writing Rubric*

Grades reflected a closer focus on the rubric requirements and the learning they were acquiring in Writer's Bootcamp. There was a greater sense of wanting to perform well as scores moved up on average of 1.5 letter grades on writing assignments during the last half of the semester. Importantly, all students moved out of the unacceptable category (poor organization of work, ideas fail to make sense together, the reader loses interest, the tone is unprofessional, errors in sentence structure, spelling and grammar are frequent, paper does not meet the requirements).

### *Reflection Instrument*

Twenty-four questions were posed on the reflection instrument to be answered on a Likert scale. Unanimously rated "strongly agree" were the following: I care about the perfection of my portfolio, I developed written and oral communication skills, I acquired new knowledge, I developed skills in the art of collaboration, I developed confidence in working creatively and with my imagination, The experience led to my growth in writing, and I remember thinking more deeply. Open-ended attitudes about Bootcamp were: "it was great," "beneficial," "helped me," "pushed me," "helped me think," "start it earlier in the semester," and "do it in other classes." Reflections that were rated neutral by some students were: "I developed confidence with people", "I developed self-governance and self-directed learning" and "I had the opportunity to be a leader on subject matter." In sum, Writers Bootcamp was seen as engaging, powerful, and educational.

## CONCLUSIONS AND FURTHER RESEARCH

Both the course redesign (the classroom as a think tank versus a lecture hall) and the active-small-group activities (the student as a practitioner) led to a profound positive influence on student performance in an undergraduate advanced writing course. Both the implementation of active-small-groups and authentic assignments spurred student engagement, motivation, and prideful performance. This qualitative research helps confirm student satisfaction and development when working in small groups on an authentic exercise. The comparison of writing assignment grades taken from the first half of the semester (average score: D+) to the second half (average score B) provides qualitative justification for the active-small-group, authentic experiential module in a medium-size private university in New York. Given the key importance of writing in the field of Public Relations, this cornerstone proficiency is critical in the skillset of the graduating PR student. Collaborative learning and its roots in social interdependence theory worked to support self-reported gains in student efficacy, learning and confidence. Because students participated in a mix of thoughts and approaches, they deepened their understanding of an authentic situation and the serious response required. The supportive environment, or neighborhood, further enhanced learning and encouraged prideful work. The students built an emotional framework of trust and excitement. Other researchers might continue to test this experiential module in writing courses that have critical impact to Public Relations majors. This study only considered the learning in a one-semester course. Conducting studies in other universities as well as a longitudinal study may add to the accumulated learning on the principles of active collaborative learning with authentic assignments as experiential modules.

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# Resilience and Adaptability to the Changing Labor Market: An Examination of Workplace Readiness of Recent Public Relations Graduates

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## ABSTRACT

After decades of praise for a college education as a broad credential for the job market, employers and students alike are asking colleges to more favorably weight curricula toward experience-based work-integrated learning. This active, engaged learning features practical application to students' majors, can achieve programmatic objectives and may occur inside or outside of the classroom. Employers see experiential learning during college as a influential factor in preparing students for the workplace, with an added benefit to employers' critical, some would assert high-stakes talent acquisition and on-boarding initiatives. This paper examines workplace readiness of recent college graduates employed for the first time. Subject matter expert interviews with practitioners exploring skills required in today's workplace and a content analysis of entry-level job skills required are two sources of information that offer insights important to the understanding of the graduates' steps toward adaptability to the labor market. The conceptual framework will contribute to thought leadership in the preparation of college graduates and in identifying the gifts and gaps in their readiness for the workplace.

*Keywords: Workplace readiness, skill gaps, onboarding, public relations, written and oral communication*

## INTRODUCTION

This primary research examines skills organizations are looking for in entry-level positions for Public Relations and how well recent Public Relations graduates are prepared to meet those skill requirements. Entry-level Public Relations job descriptions from across the US posted on the Public Relations Society of America (PRSA) job center were analyzed for skill requirements and compared with the skills demonstrated by new graduates as seen by practitioners.

## HISTORY AND BACKGROUND

The US labor market itself as well as preparation to enter the skilled labor force has changed markedly over the past decade. The four forces of change are: (a) globalization, (b) demographic shifts and educational attainment, (c) agility and (d) experiential education as a competitive advantage.

The US labor market fits within a competitive global economy better than ever before; fueled by technology, innovation, knowledge and skills that in some cases did not exist five years ago. Today's global employer is seeking graduates who have skills beyond a proficiency in one academic area. The labor market requirements have shifted away from static skill sets to market adaptability. Realizing this, college students are working hard to amass evidence of both academic standing and organizational experience during college.

The population is aging, shepherding baby boomers into retirement and millennials into leadership. The population of recent college graduates is becoming more diverse with an increased level of educational attainment. Educational attainment, however, comes at a price, 69% of the class of 2014 graduated with debt from student loans (Institute for College Access and Success, 2015).

Both businesses and the millennial workforce are becoming noticeably agile. Employers are providing flexibility in work environments and benefits: virtual work arrangements, extended parental leave, days of paid volunteer time off, access to executive and life-coaching and help with student loan repayment. Organizations are

modifying the size and composition of their workforce, as market conditions require. Anecdotal evidence suggests that the average college graduate will change careers—not—jobs seven times in a lifetime. The US Bureau of Labor Statistics reports that younger workers (25-34) have an average tenure of 3 years at any one job making their stops at organizations more like contract work than career employment.

Experiential activities link to a higher rate of job offers consistent with empirical studies and according to the 2015 National Association of Colleges and Employers (NACE) study. Findings affirmed participation in these activities hold a clear link to an advantage in the job market.

- Nearly two-thirds of responding students (65%) said they participated in an internship, co-op, or both.
- More than half of interns (61%) were paid.
- Three-quarters of students who participated in an internship or co-op said they were very or extremely satisfied with their experience.
- Students who complete internships/co-ops enjoy a distinct advantage in the job market over those who lack such experience. Overall, 57% of students who performed an internship/co-op received at least one job offer, while only 37% of those with no internship/co-op experience received at least one job offer.
- Paid interns/co-ops with private, for-profit companies enjoyed the highest offer rate (72%) and were offered higher starting salaries (median offer \$54K).

The on-the-job learning at an internship or co-op helps prepare students for work protocol: written and oral communication, critical thinking, and workplace relationships. Subject matter knowledge and a capacity to learn demonstrated by a new diploma serves to help students absorb and take in their new role intellectually. The interdependence of the two, experiential and academic rigor and reflection, provides a competitive advantage.

#### LITERATURE REVIEW

John Dewey (1938) states that to understand the world, learners need to interact directly with it. Experience is the foundation of education. Of primary importance is that learning should be active (the body and/or mind) and relevant to the student, and followed by a period of reflection as knowledge becomes assimilated, and later applied to future experiences. Further, Kolb's experiential learning theory presents a model, which begins with a concrete experience, followed by reflection on the experience, abstract conceptualization, and application of ideas to new concepts (Kolb, 1984). Drawing on the foundational theories of John Dewey and David Kolb, experiential learning has been examined in many instances as an effective pedagogy. Contemporary research illustrates that internships, for example, contribute to successful adaptability to the workplace. A survey of 185 employers of 392 interns enrolled in an Association to Advance Collegiate Schools of Business accredited business college in a Northeastern US university found that "there were significantly more full-time opportunities for undergraduates with internship experience." It went on to find that "while even average-performing interns were significantly more likely to receive full-time job offers than non-interns, high-performing interns were more likely to receive higher starting salaries." (Gault, Leach and Duey, 2010).

Hernandez-March, del Peso and Leguey (2009) conducted 40 in-depth interviews with human resource managers employed in Spain. They found that what employers value the most with respect to higher education is that it teaches students how to learn. In fact, the ability of a graduate to assimilate new knowledge rapidly is one of the most highly valued competencies in the job market. Hernandez-March et al found that educational methodology based on class lectures alone result in students being completely passive during their education. In this research, employers criticized exam-based evaluations, because they do not adequately measure the competencies that are required in the work environment.

#### RESEARCH METHOD

A content analysis of 50 entry-level job descriptions was conducted using the PRSA job center postings in December 2015 and January 2016. The search was refined by filtering for: job function (Public Relations) industry (all), organizational setting (all), job type (full-time), state (all), and entry level. A program was set up in Wordle



to list and calculate the prominence of each skill requirement found in the 50 randomly selected job descriptions of more than 1,000. The practitioner interviews (n=12) were 30-minute telephone interviews with twelve participants across the US. The practitioners worked in or owned Public Relations agencies or worked as a Public Relations executive in an organization. Interviews were conducted from March 2015 to January 2016.

The data is presented as a word cloud, with keywords ranging in scale as a function of frequency.

## FINDINGS



Based on the content analysis, the top five required skills listed on entry-level Public Relations jobs are:

1. Written and oral communication
2. Critical thinking
3. Interpersonal skills, forming relationships
4. Time management
5. Social media

Communication skills along with critical thinking are the cornerstones of Public Relations work. The so-called soft-skills, interpersonal skills and forming relationships, are key due to the fact that Public Relations exists in the service sector. Time management and social media continue to have a formidable impact on how organizations and constituents create and consume content.

## SUBJECT MATTER EXPERT INTERVIEWS

Subject matter expert interviews are based on the principle that forecasts or decisions from a structured group of experts are more reliable than those from unstructured groups. This technique provides qualitative findings. Twelve in-depth interviews with Public Relations practitioners in NYC, Washington DC, Denver and San Francisco were conducted. In sum, there is agreement that recent PR graduates are only partially equipped with skills when entering the workplace.

## THE QUESTIONS

The screening assured that the respondent worked around new graduates. The three questions were:

1. Can you name and describe three skill sets newly minted Public Relations graduates come with to the workplace?
2. Can you name and describe three gaps in skill sets Public Relations graduates come to the workplace with that you were expecting?
3. What suggestions do you have for a Public Relations educator to better prepare students for an entry-level position in PR?

## THE KEY GIFTS

Practitioners found the recent Public Relations graduates started their first job with skills in technology, personal and global values and internship experience.

### *Technology*

New college graduates are digital natives, technologically savvy; they are comfortable with many communication vehicles and have a level of access and immediacy with them. "They are aware of recent technology and the role social media plays in their lives."

### *Values:*

They are comfortable with diversity; they care about their community and the globe. They have a centered, balanced idea of the lifestyle to which they aspire. They are open to rapid change in fast moving landscapes. "They are tuned into civic justice and how society works on a global scale."

### *Internships*

More students are starting their first job out of college having had internships, they are able to manage their time, stay organized and deliver under deadlines. "Those who come with prior advertising, marketing, digital media and PR internships come with honed skills not readily apparent on the resume or at the interview."

## THE KEY GAPS

Practitioners found the recent Public Relations graduates started their first job lacking skills in written and oral communication, a strategic approach and critical thinking.

### *Communication*

They lack advanced writing and oral communication skills (smart content, attention to detail: proof reading, polishing, spelling, grammar, active voice, brevity, articulating an idea to team members etc.). "There is only the occasional great writer."

### *Strategic Approach:*

Despite regular use of digital tools including social media, they lack the understanding of when and how to use them to achieve an objective. There is not a clear understanding of business concepts. "Send me someone who has mobile mastery on the strategic level."

### *Critical Thinking*

They lack full capacity to formulate questions, assess relevant information, think about alternative ideas, and figure out solutions. "They lack the understanding of what questions make sense to ask, because they know everything already."

## CONCLUSIONS AND FURTHER RESEARCH

Organizations are looking for graduates with skills to help them achieve their mission and goals. While the recent graduates are adapting to the changing labor market well in terms of their fluency in technical skills, comfort with diversity and understanding of social media, they are deficient in demonstrating advanced communication skills, critical and strategic thinking and forming relationships required in the field. The skills honed by having had internships are seen as an advantage in the labor market, both in terms of job offers and starting salary.

The insights from this study for educators in the field of Public Relations suggest a framework. That is, that educators build in class and out of class experiential learning goals around the key skills required in the workplace using the themes of communication, critical and strategic thinking and forming relationships. Further,

that educators model a strategic approach to assignments aligning Public Relations planning with business concepts and goals. In order for students to prepare for workplace requirements, there must be greater synergy between higher education's programmatic learning outcomes and practical competencies that come out of both the academic and experiential assignments. In the end, higher education's delivery of competent graduates derives from its ability to transfer core skills and competencies that empower the individual to adapt quickly to changing opportunities.

Further research is necessary to evaluate the connections between experiential learning and academic outcomes necessary for a Public Relations graduate to be fully workplace ready by country, by globe. A cross-sectional study with a large sample of diverse global Public Relations undergraduates would serve to advance the research.

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# Unpacking Cooperative Education from the Supervisor Perspective: Key Issues and Strategies

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## ABSTRACT

Cooperative education as a model of learning for university students involves three key stakeholder groups: the student, the employer, and the university. Considerable research has investigated the perspectives and outcomes for cooperative education students, but much less attention has been paid to the experience of co-op workplace supervisors. This exploratory study, involving 14 co-op employers, investigated the co-op process from the point of view of the employers. Four themes emerged through this research including, 1) the identification of a pragmatic and/or developmental orientation of the supervisor towards their student(s), 2) the importance of the person-organization fit, 3) the role of organizational citizenship behaviors, and finally 4) the challenge of onboarding and training students. This paper discusses these themes and identifies potential areas for future research.

*Keywords: Cooperative education, supervisor perspectives, person-organization fit, organizational citizenship behaviors*

## INTRODUCTION AND LITERATURE REVIEW

Cooperative education (co-op) involves a system of education in which students alternate between academic terms and work terms, each typically four months in length (Sattler & Peters, 2013). Using various mechanisms to bridge the two environments, students have the opportunity to integrate their learning from both contexts. Consequently, the integration of experiences creates a benefit that is greater than the sum of its parts (Coll & Zegwaard, 2011).

Students are not the only beneficiaries in the cooperative education model. There are three main stakeholders within the co-op system: students, institutions, and employers (Hurd & Hendy, 1997). It is the successful management of each stakeholder groups' needs and motivations that facilitates students' learning, and other desirable benefits (McDermott, 2008). Addressing the needs of each group therefore provides value, and supports the sustainability of the co-op system.

Previous research has focused predominantly on the needs of students. This is not surprising given that co-op is first and foremost a pedagogical design for the purpose of educating students. We know, for example, that students want to make meaningful contributions to their employers, that they hope to gain experience that is relevant to their personal and academic interests, and that they want to position themselves as more marketable towards their foreseeable careers (see Apostolides & Looye, 1997; Cleary, Flynn, Thomasson, Alexander, & McDonald, 2007; Drewery & Pretti, 2015).

There is much less attention in the literature on the perspectives of co-op supervisors. Co-op supervisors are those individuals who directly oversee the co-op student(s) during the work term. They take on various roles from recruiter and hiring manager, to advisor, mentor, and teacher (Winchester-Seeto, Rowe & Mackaway, 2013). The co-op supervisor plays a central value-generating role within co-op (Chapman, Coll, & Meech, 1999; Hurd & Hendy, 1997) because of his or her close connection to the co-op student. They represent a critical link between academics and work (Fleming & Eames, 2005; King, 2001).

We know very little about the needs of co-op supervisors during work experiences (Braunstein & Stull, 2001; Coll, Zegwaard, & Hodges, 2002; Lechleiter, Lumsden, & Fondacaro, 2009). Previous research suggests that participation in co-op can be challenging for supervisors (Patrick, Peach, Pocknee, Webb, Fletcher, & Pretto, 2008). Co-op students, especially those without previous work experience, may require intense support early in the term (Abel & Love, 1988). Additionally, few co-op supervisors receive formal training on how to supervise co-op students (Bartkus & Stull, 2001). We also know that supervising co-op students may represent a small part of the many responsibilities a supervisor has (Rowe, Mackaway, & Winchester-Seeto, 2012).

While it is clear that co-op supervisors can experience a number of challenges, the nature of these challenges and how to negotiate them remain unexplored. These challenges, if not addressed, likely create negative experiences for supervisors. In turn, such experiences may discourage supervisors from participating in co-op or discourage them from providing high-quality supervision. Given that supervisors play such a key role in the success of co-op, it is important to explore what makes a co-op work term successful for them, and the strategies we may take to support these successes.

This study answers previous calls to examine the supervisor experience within co-op (e.g., Apostolides & Looye, 1997; Braunstein & Stull, 2001; Howard, 2004; Vaughan, 2014). The purpose of this study is to explore co-op supervisors' experiences in working with co-op students. This study has two main objectives:

- 1) To explore supervisors' perspectives on their experiences with cooperative education programs, including how they describe "successful" co-op work terms, and
- 2) To identify potential constraints to successful supervision as well as the strategies for negotiating these constraints.

## METHODOLOGY

### *Cooperative Education Context*

The co-op program used to study supervisors' experiences was housed in a large, research-intensive Canadian university. This program has 4,500 active employers who screen, select, and hire co-op students from across all academic faculties at the university. The program supports more than 17,000 four-month work terms each year.

### *Recruitment and Data Collection*

After receiving ethics clearance to conduct the study, we followed a purposive sampling approach given our specific interest in individuals with direct supervisory experience. Such individuals were identified through the researchers' professional connections, and through the institution's employer network. This provided access to a broad range of supervisors with various experiences supervising co-op students. Potential participants were initially contacted via email or phone and asked to participate in an interview with one of the researchers.

Semi-structured interviews were used due to the targeted nature of the research questions. We hoped to explore participants' experiences, allowing them the freedom to discuss various aspects of supervising students, but also guiding conversation towards specific topics. Each interview lasted approximately thirty minutes and each participant was offered \$15.00 in compensation for their involvement. Interviews were documented using an audio recorder and later transcribed by research assistants.

### *Data Analysis*

Data were analyzed using a grounded theory approach as described by Charmaz (2001). Grounded theory was selected for its ability to evoke rich description from participants' voices, appropriate given our desire to explore core themes within supervisors' experiences.

Consistent with this approach, transcripts were read and coded to identify consistent concepts. Focused coding was used to gather concepts from within and between transcripts that may belong together under broader conceptual labels. These labels were then organized in terms of the research question that they helped to answer.

To provide a more confident crystallization of themes, two research assistants and the primary investigator independently followed the same coding approach. The coders then met to discuss their interpretations and to rectify any divergent points.

#### *Participant Profile*

Fourteen employers participated in the study. The participants were employees in a variety of industries such as information technology, post-secondary education, software (development, management), automotive, banking, and the public sector. Participants had on average, six years of experience working with co-op students. Some employers had minimal experience with co-op students, while others had worked with co-op students for many years. While all participants were involved with co-op students, some were involved in the recruitment and hiring process, some in the day-to-day supervision and others were involved in all aspects of screening, selecting, hiring, training, supporting, and evaluating. A few participants were from small-medium sized companies, but most were from large organizations of over 1,000 employees.

### FINDINGS

Our data analysis resulted in the identification of four core thematic areas.

#### *Theme 1: Employer Orientation Towards Co-op*

Two orientations or perspectives towards supervising students emerged. These perspectives describe employers' view of the role of the co-op student. The first orientation is a *pragmatic or functional orientation*. This orientation is characterized by a belief that the co-op student ought to provide the organization a level of benefit that exceeds the costs associated with having the student within the organization. A description of this orientation is represented in the following supervisor quote.

I guess when you're a small company, there's a bit of a trade-off between the amount of time you have to train the person versus how much work you can get out of that person versus what if I just did it myself? Could I have done it in the amount of time I spent training the student?

Supervisors with a pragmatic/functional orientation described high-performing students as those who made a positive impact comparable to that of a new full-time staff member. Successful work terms, from the pragmatic/functional perspective, were characterized by the extent to which the co-op student "lightened the load" of other staff members in the organization. Conversely, unsuccessful work terms were those in which the student "drained" the supervisors' resources (e.g., time, emotional resources). A consistent belief from the pragmatic/functional perspective was that the value provided by the student to the organization ought to increase as time progresses. This is consistent with previous literature which has demonstrated that functional relationships are the strongest predictor of supervisors' satisfaction with subordinates (Beehr et al., 2006). When subordinates are able to do things in such a way that contributes to the supervisor reaching his or her goals, the supervisor's satisfaction with subordinates is enhanced (Beehr, 1987).

The second orientation towards cooperative education that emerged from the data was the *learning or developmental perspective*. Participants who shared in a learning/development orientation felt that their role within the co-op system was to assist in the personal and professional development of the co-op student. They saw themselves as an extension of the educational experience, and wanted to contribute towards the students' learning. One supervisor described, "the best experience for me is seeing them be successful and continuing to help them where I can." The learning/development perspective is consistent with the belief that co-op provides a space for students to explore and grow while gaining valuable experience that directly benefits them in future employment. For example, one supervisor stated, "I try to make sure they get exposure [and] help out in other parts of the business as well." Supervisors who shared in this perspective defined the success or failure of a co-op work term in terms of students' development. That is, the amount of learning that occurred was a direct indication of the success of the experience.

While some of the participants demonstrated a dominant perspective towards co-op, pragmatic or developmental, we found some participants would mix the perspectives and talk about the experience combining both orientations. For example, one of the supervisors made the following statement.

There's always something on someone's desk that they need help with so we'll piece together responsibilities for the co-op so they can see the different aspects of the business, learn different things, but also help as many people as possible.

### *Theme 2: Organizational Citizenship Behaviors*

When supervisors spoke of the most successful co-op students they had worked with, they often referenced the ways in which students exceeded expectations.

He [the student] really cares about our product and he gives suggestions above and beyond his job about our product, about things that the product managers don't even consider."

Another employer explained the value of successful co-op students as, "you have an individual who really goes above and beyond and fits into the team but also brings new ideas and energy".

These examples align with research previously conducted on organizational citizenship behaviors (OCBs). OCBs are behaviors that are not part of the employee's role requirements but still contribute to the overall success of an organization (Organ, 1988). Some examples of OCBs are cooperation with colleagues, volunteering one's time outside of regular work hours, sharing ideas, and helping others (Bateman & Organ, 1983; Smith, Organ, & Near, 1983; Van Dyne, Graham, & Dienesch, 1994). These behaviors are positive for organizations and simultaneously benefit the supervisor and employees (Walz & Niehoff, 2000). In our research, co-op students who engaged in behaviors on top of the requirements of their role were viewed more positively and more likely to be described by the supervisor as one of their "best" experiences with co-op. Students who simply completed the tasks outlined in their job description were considered to be good and these were the standards that supervisors hoped that students would meet. Mutual liking and respect, as well as friendliness can be impacted by an individual's engagement in OCBs (Lin & Peng, 2010). As such, when students engage in OCBs it may lead to greater mutual liking between the student and their supervisor and this might contribute to more favorable outcomes (Turnipseed & Rassuli, 2005).

### *Theme 3: Person-Organization Fit*

A further theme that emerged when examining how employers described successful students was the concept of person-environment fit. Those students who were considered to be particularly successful by their supervisors were characterized by fitting in well with the team, the organization as a whole, and the supervisor.

Theories of person-environment fit pervade organizational psychology research (Kristof-Brown, Zimmerman, & Johnson, 2005). Generally, person-environment fit refers to the compatibility between the individual and the work environment when characteristics are well matched (Schneider, 2001). There are several distinct types of fit including person-organization, person-team, and person-supervisor fit. Research has previously focused on the match between an individual's interests and those in their work group but there has been a shift in focusing on an employee's fit with his or her job, workgroup, and supervisor (Kristof-Brown, Zimmerman, & Johnson, 2005).

Frequently, the employers we interviewed in this study referred to a good or bad fit when discussing both their best and their most challenging experiences with co-op students. For example, one supervisor said, "We're always looking for positive, hardworking people to add to our team. When we get students who show those attributes, we're happy to always go back." Another employer stated, "it's an attainable thing to do your job and do it well but it's connecting with people and becoming a part of the team - that's where we attribute success." At the other end of the spectrum, a supervisor described when fit wasn't good, "he came in with an entitlement attitude, and unfortunately, it just doesn't work out well".



The results of the current study solidify the importance of person-supervisor and person-team fit for supervisor satisfaction and co-op student success in the workplace. The current results are novel in that they provide evidence of positive outcomes from person-supervisor fit from the perspective of the supervisor. As such, it is important to further examine this notion of person-supervisor fit, looking to determine its effect upon workplace outcomes for co-op students as well as regular employees, beyond supervisor satisfaction with co-op student employees. Furthermore, there remains little investigation into the perspective of the co-op supervisor as to what creates a good fit between the individual and his or her supervisor.

#### *Theme 4: Onboarding and Training*

Consistently, when asked to identify factors or processes that inhibit or otherwise constrain the success of the work term, supervisors spoke about the time it takes to onboard and train new co-op students. According to supervisors, training has the potential to take away from their ability to complete other necessary tasks.

I need them to be able to stand on their own two feet. I can't supervise them 24/7 so the challenge is sometimes getting that balance between giving them enough to feel comfortable and confident and me being able to get my work done as well.

Students who were described as successful were also characterized as being those who took less time to train. Students' previous experiences, or ability to learn quickly were helpful in mitigating the stress of training.

That was one of the challenges early on but now we've proven that if you spend a week to two weeks of quality time, mentoring, coaching, teaching, answering questions, then... And every co-op student is different, one to two weeks are the amazing ones. Sometimes it's a month. But even if spending that month... I know for a fact now that you're going to get something in return. It's worth the investment.

Consistent with these statements, for many organizations, training represents a significant cost and as such, employers tend to look for employees who can learn quickly how to do their jobs well (Parsons, Caylor, & Simmons, 2005).

#### *Strategies*

In addition to the four key themes that emerged from the transcripts of the interviews with the supervisors, there were also specific strategies identified by the participants in relation to these themes. Suggestions were made about specific areas for student preparation. One employer noted the need to increase students' awareness about the importance of a return on investment for the supervisor/organization (pragmatic orientation). Another employer suggested the importance of conveying expectations to students that the best performing students are those who go above and beyond (OCBs) and make an effort to connect with co-workers and their supervisor (person-organization fit). One employer spoke about the importance of an end-of-term presentation (developmental perspective). For them, the presentation provides an opportunity for the students to practice their presentation skills. It also allows their co-workers and supervisors to hear about the ways in which he/she has developed over the course of the term. With respect to onboarding and training, many employers referenced the value of investing more time in the early stages of the work term. Some employers ask students to develop manuals or training materials to support the transition of the next co-op student. Through the interviews, employers described current or possible strategies to increase the likelihood of a successful work term experience related to all four themes that were identified.

## DISCUSSION

The purpose of this study was to explore co-op supervisors' experiences with co-op students. Particular emphasis was placed on understanding the perceptions of supervisors on the attributes of successful students and their positive co-op experiences, and conversely, the negative experiences that they had encountered. We found a number of interesting themes emerge in analyzing the interview transcripts, including the orientation the

supervisor had towards cooperative education, the role of organizational citizenship behaviors, the importance of person-organization fit, and finally the challenge of training and onboarding.

It is interesting to look at the results of this study and examine them in the context of the literature in the organizational behavior field. There are a number of similarities and differences, which highlight the interplay of the academic and workplace nature of the cooperative education model. This research points to the fact that there are some ways in which co-op students are viewed as similar to regular employees, and thus, the findings are consistent with organizational behavior literature. There are also ways that co-op students are different from regular employees, in the duration and purpose of the workplace experience.

Consistent with the organizational behavior literature, co-op employers screen candidates through an application and interview process and are looking for candidates, not only with the appropriate set of technical skills, but who they also believe will be a good fit for their team and organization. The importance of fit is not undervalued even though the student is only in the workplace for a relatively short period of time, typically four months. The fact that fit is important to employers is highlighted through the comments of the participants in this study as well as in the time employers invest in the co-op matching process.

The role of organizational citizenship behaviors is another area where the perspectives shared by the supervisors in this study are consistent with the existing literature. When employees demonstrate that they are hard-workers and are eager to help in ways above and beyond the requirements of the job, they are perceived to be good organizational citizens. These employees' contributions are appreciated by those around them and they are often considered top performers (Turnipseed & Rassuli, 2005). Co-op students are perceived similarly in this regard. The most successful students are motivated to learn and they recognize that they have a short amount of time to make a meaningful impact in their workplaces (Drewery & Pretti, 2015). On the other hand, those students who do not demonstrate OCBs and do only what is asked of them, or specified in their job description are much less likely to receive 'excellent' or 'outstanding' ratings from their employers.

While training and onboarding is an area of interest within the organizational behavior field, there is a somewhat different perspective that emerged in our research. We believe orientation and training emerged as a key challenge for organizations in hiring cooperative education students for two main reasons. One factor is that co-op students, particularly the junior students had little, if any, experience in professional workplace settings (Abel & Love, 1988). For these students, training requires more than the job-specific knowledge. It also requires patience on the part of supervisors and co-workers in helping students learn the norms of workplace behavior (Zegwaard, Coll, & Hodges, 2003). The second reason that this area emerged as a key factor in the supervisors' discussion of co-op is that, unlike a typical newcomer to the organization, the duration of employment for the co-op student is typically four months. The short length of the co-op student's term with their organization requires that supervisors and mentors of co-op students repeat the training/onboarding process every four months (if they hire co-op students consecutively).

The other area that emerged in this project that deviates somewhat from the traditional organizational behavior literature related to employers' orientation towards the work versus learning of their employees. Some of the participants in our study viewed cooperative education from a pragmatic perspective, that is, they were focused on the job duties the student was required to perform and were conscious of the return on their investment of time in terms of student productivity. This would be fairly consistent with the outlook of supervisors towards most of their regular employees. However, even with the supervisors who approached co-op from the pragmatic perspective, there was a recognition that co-op students are in the workplace to learn and develop. This is not to say that supervisors, in general, are not concerned with giving their employees opportunity to learn and develop, but the formal affiliation with an academic co-op program seems to highlight the importance of learning for the student in the minds of all stakeholders.

## CONCLUSION

Based on this research, we have been able to identify some ways in which co-op students are seen as similar to regular full-time employees. These ways include the importance of person-organization fit and organizational citizenship behaviors. Due to these similarities, it would be wise to make use of organizational behavior theories, frameworks and findings in these areas to strengthen co-op research and practice. We also have found that there are areas in which co-op students are perceived to be different than traditional full-time employees. These areas include onboarding and training, as well as the pragmatic or developmental perspective of the supervisor towards the co-op students. These are areas where institutions with co-op programs can focus their attention to identify ways that they can improve their support to students and employers. The strategies identified in this paper provide examples of existing or potential ways that can enhance the work term experience from the supervisors' perspective which then will ultimately improve the students' experiences.

## LIMITATIONS AND FUTURE RESEARCH

While this study contributes to the literature regarding the supervision of co-op students, it has a number of limitations that may encourage future research. The recruitment strategy and participant group is specific to one form of work-integrated learning (i.e., co-op). Similarly, participants were sourced from mostly large, profitable organizations. Future research should expand upon our insights by exploring the supervisory experience in other work-integrated learning contexts, and in other organizations (e.g., small social enterprises).

This study was exploratory in nature. Accordingly, the participant group was small and the purpose of interviewing was to reach a theoretical saturation of concepts. Future research could aim to confirm our findings with quantitative survey methodologies. Specifically, we believe that the insights generated here, particularly regarding supervisors' orientations, could be used in quantitative studies to better understand various aspects of the co-op work term (e.g., students' evaluations). Additionally, researchers might be interested in understanding the conditions under which such orientations emerge. Why do some supervisors lean towards a learning/development viewpoint towards co-op while others have a pragmatic/function orientation? Do characteristics of the supervisor (e.g., age, gender, educational background) or their organization (e.g., size, industry) affect their views towards co-op? Investigating answers to those questions would provide useful information for those running cooperative education programs, both in their support of students and employers.

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# Assessing Quality in Higher Education: Critical Perspectives and Innovative Implications

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## ABSTRACT

The majority of quality audit research positively assesses quality assurance practices as currently implemented in higher education institutions. The literature related to this research scope stands on the assumption that quality practices are both theoretically defensible and practically fruitful for education. This study aims to critically review this literature in order to assess the recent higher education quality practices. The study attempts to rebut the evidences behind these assumptions and theoretical frameworks; hence, it assesses the recent practices and outcomes of higher education audit process. The review of the related literature reveals considerable doubts regarding the impact of quality-assurance practices on higher education performance, mainly because audit practices depend on self-study-with-peer-review techniques, which are processes rather than outcomes based. Recent research critiques quality audit systems, and draws attention to the need for better performance assessment and accurate instruments and metrics. The study concludes the need for inevitable, innovative reformations in this field. The new innovative researchers should foreground and adopt educational quality of higher education rather than customary quality in education. The author coined the term "Educational Quality" to ascertain the importance of educational literature, foundations of education, and the history of educational innovations when establishing sound assumptions and theoretical frameworks drawn from and are consistent with higher education. Accordingly, the author recommends higher education institutions to cooperate in order to develop and adopt a new version of tertiary quality that is outcomes or performance-based rather than process-based audit paradigm.

## INTRODUCTION

Quality in higher education seems to be one of those contemporary innovations that began to emerge in the form of distinct policies and practices at the universities during the eighties and nineties of the past century (Stanley & Patrick, 1998; Vidovich, 2001; Westerheijden, 2005). Although the quality standards, auditing and accreditation practices imported to the educational institutions through other disciplines like industrial engineering and business administration, it gradually deepened its roots in educational practices and research. Examining literature in this field shows a lot of weaknesses and shortcomings that require the concerted efforts of researchers in the world to overcome (Qandile, 2015).

This research focuses on the analytical discussion of assessing the current higher education audit as being practiced different countries around the world. The author believes that the unity of the human fate, the current economic interactions and the recent calls for globalization must be translated on the ground into common higher education goals and standards. The real belief in globalization is incumbent on all countries to cooperate in order to establish one list of tertiary education assessment standards. Preparing such Standards and their related practical audit techniques is not an easy task, hence, higher-education institution cooperation to accomplish such mission is highly recommended to guarantee preparing highly qualified manpower for the global job markets.

## BACKGROUND AND PROBLEM

The tertiary quality audit practices have been targeted to establish new policies related to centrally accountable principles at higher education institutions. Quality audit reflects an imperative process to demonstrate that appropriate standards have been set for different educational services. Consequently, higher education quality experts work to make sure that actual practices meet those specified standards (Brennan & Austin, 2003; Komives

& Arminio, 2011; Maila, 2007). On the other hand, the audit process offers proof to the stakeholders that graduates have attained the required level of competence to be awarded a provisional license to practice their jobs. This sort of educational development is widely compatible with the basic principles of the human capital theory that stresses the role of education as a production investment as it supports educational policies that focus on student skills and performance of the individuals in workplaces to gain success in the modern labor market (Becker, 1964).

Despite the nobility of these objectives and trends, literature shows that the most recent quality audit practices are not the optimal techniques to assess tertiary education performance. One of the major drawbacks of current quality audit is depending on the self-study-with-peer-review technique that focuses on processes or practices rather than outcomes or accurate performance measurement (Ntshoe et al., 2010; Skolnik, 2010). On the other hand, this current audit technique led to affecting the assessment data with different types of bias and subjectivity (Cheng, 2010; Lillis, 2012). Therefore, Federkeil (2008) highlights the importance of awareness of quality assessment limitations, as a critical issue for educators and researchers to prevent false or unrealistic expectations from the audit process.

Hence, literature draws the attention to the need for more emphasis on outcomes rather than processes, and focusing on measurable and quantifiable criteria as an alternative to the current subjective impressionistic practices (McClaran, 2010; Lawson et al., 2014). Likewise, Skolnik (2010) advocates a model of evaluation responsive to concerns and claims of different stakeholders to guarantee the effectiveness of outcomes. Such alternatives are important not only because of they use better evaluation metrics, instruments and economics-oriented assessment (Lillis, 2012; Singh, 2010), but also because of their consistency with the global “performance-based education” trend (Educational Testing Service, 1972; Engel, 1973), as well as consistency with the economics of education literature the business performance research point of view.

## RESEARCH OBJECTIVES AND METHODOLOGY

This study begins with the major criticisms to current quality audit practices in higher education to assess the underlying assumptions and the theoretical background. The study also aims to propose the needed reforms for future quality audit practices in higher education. It is, hence, a type of literature analysis discussion consistent with descriptive qualitative methodology. The author depended on related published articles, self- and peer-observations to collect the data required for addressing the research objective.

## QUALITY AUDIT CRITICISMS

Procedures of internal and external audit in higher education institutions have gained acceptance from reviewers and are widely seen as reliable and important for developing academic standards in some universities in Western Europe, United States (Bormmann et al., 2006; Dill, 2000). Researchers concluded that quality assurance systems led to some improvement in education processes (Shah, 2012), and clearer documentation and transparency in higher educational practices (Harvey & Williams, 2010), however, the field experience and literature analytical study reveals the following four crucial criticisms:

### *Vagueness of the Concept*

Defining quality in higher education has proven to be a challenging task. Pounder (1999) argues that quality is a notoriously ambiguous term, because quality conceptualizations subjectively validate what is considered worthwhile. According to Higgs (2006), conceptions of quality in higher education are a prime means by which a society communicates its goals for higher education. They affect the nature of educational practice and public views on that purpose. The American Society for Quality identifies four dimensions for quality in education, which are accountability, curricular alignment, assessment, and student satisfaction, while the Association of American Colleges and Universities views student achievement of intended learning outcomes as the key indicator of collegiate quality (Brown & Marshall, 2008).

Therefore, determining criteria for assessing quality in higher education is affected by the quality identification itself. This requires an understanding of quality views that inform preferences of stakeholders. Ntshoe et al., (2010) contend that quality in higher education remains a contested terrain. It raises the issue of whether it is feasible to talk about universal criteria of quality in higher education. Juxtaposing context-bound quality constructs with a universal concept of quality, the authors highlight the ability and capability of the academic oligarchy to police itself in establishing processes, standards and criteria against which quality in the sector can be assured.

The report on quality culture project by European University Association (EUA, 2005) deliberately does not offer a universal definition of quality to ensure ownership of any definition that might emerge. Astin (1980) typifies quality through different constructs, including reputation, resources, outcomes and added value. Harvey & Green (1993) theorize the philosophical nature of quality through exploration of quality judgments in higher education. This conceptualization suggests that quality can be grouped into five discrete but interrelated categories. We can identify these categories as exception, consistency, fitness for purpose, value for money and transformation. It is important, then, to overview the main characters of such different quality concepts in education. No doubt that the complexity of quality and the vagueness of concept would reflect on designing valid instruments for quality assessment.

Although recognizing validity as a basic characteristic of performance measurement, checking quality audit systems reveals that this audit depends on instruments with no empirical evidence regarding its validity. For example, the student surveys, faculty and staff questionnaires and other tests related to students' achievement are poor validity instruments. A multi-dimensional analysis study for major students' questionnaires demonstrated the useless dependence on such questionnaires because of invalidity, fake responses, low readability as well as low percentage of participants, and hence doubtful resulting data (Qandile & Oganesyants, 2015).

On the other hand, current audit practice assessment indicates that the audit system is a quasi-comprehensive system that covers the majority of higher-education aspects. However, this system tends to be process-based rather than outcomes-based, while a more reasonable contemporary approach ascertains the importance of focusing on performance achievement and outcomes. Results derived such focus on different quality audit practices revealed a lack of credibility when taking into consideration of data collection methodologies and limited evidence of quality practice effectiveness on higher education all over the world (Ewell, 2010; Harvey & Williams, 2010; Luckett, 2010; Shah, 2012).

With respect to the system approach and the systematic standpoint, input resources audit is also important because of the common sense regarding the relationship between the amount of education resources and the level of educational outcomes (OECD, 1989). Despite the international, inclusive research endeavors, the results of that research did not reach any universal law regarding the correlation relationship between input and output as well as the causal relationship between resources and their impact on educational performance or student achievement (Rossmiller, 1982). The main conclusion regarding this issue is that inputs and processes are important for achieving educational outcomes; however, it may or may not make any significant educational difference.

On the other hand, using self-study-report, peer review and reputation approach in quality audit practices was the main reason for the weaknesses of data credibility and assessment results. According to this technique, data collection depends on reviewers and questionnaires rather than performance objective metrics, hence, the assessment data is affected by different types of bias. In conclusion, the current quality audit regimes neglected the importance of identifying specific quality concept resulting in doubts about metrics validity, measurement techniques and procedures and data creditability.

#### *Lack of Educational Philosophy*

Any quality audit system in education should rely on the clearly established educational philosophical guidelines to the targeted merit of education. During the sixties and seventies of the twentieth century, clear philosophical

frameworks were calling upon universities to adopt new trends for higher education innovation and development. Mastery Learning, Competency-based Education and Performance-based Education are examples of applicable trends of comprehensive educational philosophy during that era. The core principle behind those trends is to have a built-in quality system that guarantees student learning. In contrast, the recent quality practices do not belong to any philosophical treatise in education, as they are imported from other disciplines which are different in structure, sources and goals (Qandile, 2015).

The prevalent information about the current quality practices in education is that they are a series of successful managerial efforts started with the approach "Total Quality Management" for improving production in industrial engineering field (Tambi et al., 2008). The history of quality audit in higher education shows quick changes in limited time. After the total quality management, there was quality control before the third generation, "quality assurance". These quick changes may reflect the development of quality field itself in industry, and business settings. They also reflect the unsuitability of such quality theoretical frameworks and practices in educational settings. Therefore, the lack of evidence of quality assurance steadfastness was clear in some countries as it started to think about alternative quality systems with measurable and quantifiable learning outcomes criteria. For example, there have been discussion and real actions in UK higher education to switch the focus from "quality assurance" to "quality enhancement" based on continuous feedback and support embedded in different practices (McClaran, 2010). Australian education also started to focus more on "assuring learning" instead of "quality assurance" in general (Lawson et al., 2014). Such examples are good stimulators to rethink the suitability of imported quality to education settings and to what extent it may align with the adopted philosophy of education.

#### *Contradiction with Educational Literature*

Many quality practices stand on wrong assumptions or are inconsistent with educational literature. One of the most important examples is the position of the "student" in the educational process. According to business and marketing theories, designing a quality system should focus on customer satisfaction, who is the student from the marketing viewpoint. Education strongly believes that the student is the corner stone of the educational process; however, he is the raw material that educators process to produce manpower to the customer, hence, the customer of higher education is society and employers (Qandile, 2015).

A further example is the principle of "conformance to requirements approach." This principle reduces quality to a set of specified attributes or characteristics to achieve in the absence of any solid evidence to assure that these are the standardized or mastery attributes. On the other hand, considering quality as continuous improvement broadens the conformance framework and renders it unreachable. Furthermore, viewing education as a system creates further difficulty in conceptualizing quality because different component parts of the system have different requirements (Sahney et al., 2004).

In addition, benchmarking, which is a common practice technique to assess the quality of different aspects at universities, is a confusing technique when compared with the solid literature of educational evaluation and assessment. Specialists in assessment consider "Absolute Criterion Reference Assessment" when assessing mastering or competence performance, while they consider "Norm Reference Assessment" when assessing is compared to the averages or prevailing norms. Benchmarking is a type of "Norm Reference Assessment" that cannot guarantee achieving mastering levels of performance (Lee Dunn & Morgan, 2002). Furthermore, benchmarking with other universities can lead to illogical comparison and false assessment when the benchmark university is widely different from the assessed university in vision, mission, targeted goals, recruiting students and faculty, etc. These differences make different models of quality that are illogically compared.

Another example of contradicting with educational literature is classifying and assessing educational objectives. Some quality audit system classifies the levels of cognitive learning into two domains (NCAAA, 2008). According to educational literature, generations of educators have studied and been trained to classify cognitive learning into six levels according to Bloom's taxonomy (Bloom, 1956). Ignoring the stable literature and choking



scholars with different cognitive structures may waste their time to adapt themselves to the new knowledge or confuse them when trying to adapt the new knowledge with their prior stable cognitive structures.

On the other hand, some practices have no justification base from educational literature. For example, training faculty includes hours of lecturing by trainers for many days, while those faculty are adult learners who need to play an active role in learning sessions according to the Andragogy literature (Qandile & Al-Qasim, 2014). In addition, what they call "Best Practice" is not only an unjustified practice, but also inconsistency with scientific logic. According to scientific rules, the good practices need to test and re-test experimentally before being part of science. It is also important to draw attention to one quality audit standard that has no real theoretical justification when most quality audit systems identify the faculty/student ratio as 1:25 while there is no specific solid literature evidence or fundamental philosophy regarding such ratio identification.

The most bewildering that many quality practices are far from any quality framework. If quality review in higher education is looking for achieving quality rather than quantity of university performance, it should focus on competencies and qualified performance. Examining the audit criteria indicated many conflicts with this main principle. For example, the auditing process looks at the number of research articles published by faculty members, not the quality and return of these publications, the number of workshops conducted, not the focus of these workshops, the number of workshop attendances not what they really achieved, and likewise, conferences organized, students' attendance, and students' response to questionnaires, etc.

In general, the whole quality audit practices and indicators are in need for revision in order to be rebuilt in line with justified literature, and the audit process needs to integrate with a comprehensive system of metrics.

#### *Doubts of Impact Evidences*

The literature of the past two decades recorded a general dissatisfaction of faculty members and heads of departments who expressed discontent with the quality audit techniques and procedures required by quality assurance and accreditation bodies worldwide. Those scholars describe quality audit practices as a waste of resources, lacking true value for higher education improvement (Lillis, 2012). Shah (2012) points out that there is limited evidence of quality systems effectiveness though external quality audits in higher education as implemented for two decades in the United Kingdom, Australia, New Zealand, Sweden and Denmark. The review of 60 external quality audit reports from 2001 to 2010 in Australia concludes that the effectiveness of educational audit is controversial with regards to the actual assessment of academic performance (Shah, 2012).

Harvey and Williams (2010) examined publications about internal quality audits in higher education from 1995 to 2010 focusing on quality measurement instruments, and they concluded that quality assurance systems did not lead to the projected enhancement in higher education performance. Likewise, Ewell (2010) reiterates that the quality assurance mechanism in American higher education has become more intentional and transparent, but the goal of providing adequate evidence of students' learning remains elusive. In South Africa, Luckett (2010) conducted a meta-reflection study to investigate the failure of a quality assurance system's ability to impact students' graduation rate despite Higher Education Quality Committee's agenda to adopt best quality assurance practices. Lillis (2012) criticized higher education institutions worldwide for investing significant resources in quality assurance systems while empirical evidence demonstrating the effectiveness of these systems does not exist, and the methodological approaches for determining higher education effectiveness in such systems are underdeveloped.

In general, Studies draw attention to the weaknesses of self-study-with-peer-review, widely used as a model for ensuring the quality of teaching, research and engagement activities of higher education institutions. Stensaker (1999) summarized the assessment of quality audit practices when he indicated that there are some strengths and weaknesses in the quality practices and audit design, and the need for future improvements to this design is inevitable. This inevitability summarizes the earlier crucial drawbacks of current quality practices and ascertains the need for reforming higher education quality audit.

### *Inevitable Innovations*

The earlier review of tertiary quality audit criticisms concluded the urgent need for higher education quality audit reform. This reform should construct solid “Educational Quality” rather than the current imported quality audit standards and practices. The author coined the term “Educational Quality” to ascertain the educational identity of the new version of quality in higher education. This identity guarantees that the main source for establishing educational quality is the educational literature that does not conflict with literature from other disciplines. The development of “Tertiary Educational Quality” would have three major phases as the following.

### *Developing a Specific Concept*

The fundamental phase to establish tertiary educational quality is to identify a specific definition for quality of education, and clarifying its link to related concepts, such as, distinguished education, mastery education, competency education, etc. (Qandile, 2015). This definition is essential for next phases as it will work as a guideline for collecting fundamental related literature and it will be a starting point for the quality system validation. This definition should be adopted by educators and align itself with specific educational philosophy.

### *Establishing Theoretical Framework*

Collecting educational literature that supports the adopted identification of educational quality is a crucial task to establish a solid theoretical framework for the new version of tertiary quality assessment (Qandile, 2015). This should be a well-structured theoretical framework that is deduced from different branches of education literature, such as educational psychology, instruction, educational assessment, history of educational innovations and basically fundamentals of education including the philosophy of education.

### *Developing Instruments and Metrics*

Tertiary educational quality cannot be assessed without quantitative measurement of actual performance. The assessment of different aspects of performance at the university requires valid and credible instruments and metrics based on observable and measurable standards with economic orientation (Lillis, 2012; Sing, 2010), then, educators can guarantee objective, valid and credible performance assessment. In this sense, educational quality can be assessed by the efficient production of educational outcomes (Rolle, 2004).

## CONCLUSION AND IMPLICATIONS

Tertiary quality audit research positively assesses quality practices as currently implemented in the higher education. On the contrary, the careful literature review shows considerable doubts regarding this assessment conclusion. The scope of this conclusion cannot be overestimated taking into account the huge budgets spent on quality audits with conflicting evidence of educational effectiveness and improvement. The critical review of the cited literature pointed out different major drawbacks and disorders related to quality concept itself as well as the quality audit practices. The major problem with this quality regime is its lack of consistency with education discipline as it was born and developed to be implemented in different disciplines such as business and industry. Since current quality audit regime was imported, it did not fit educational literature or suited educational settings. This may entail negative effect on university scholars, increase the pressure to drop out the whole audit process or think about other assessment alternatives. Thus, the need for innovations in this field, based on the current research critiques and future outlook, is inevitable.

This study draws attention to the necessity for a new version of quality audit that may help to achieve better performance assessment through accurate instruments and proper metrics. The new paradigm should foreground and adopt “Educational Quality” of higher education rather than the customary quality in education. This coined concept ascertains the importance of educational literature derived from different education branches, especially the foundations of education, and history of educational innovations to establish sound assumptions and theoretical frameworks for quality in education. Educational quality should adopt performance audit paradigm to examine the university outcomes. It tends to measure the whole university activity impact on

achieving goals, and maintain the economics of education orientation, so it takes into consideration productivity, efficiency and effectiveness metrics. In other words, quality review should strive for sustainable education based on well-developed measurable and operational criteria showing the relationship between quality management, funds for higher education institutions, and how the employment of available resources operate to ensure institutional success in satisfying the university mission and objectives (Pipjelink, 2011).

The study recommended three consecutive inevitable innovations to reform higher education quality assessment, these innovations are to identify a specific definition for quality, establish educational quality theoretical framework and develop quantitative economic metrics for measuring university performance. Nevertheless, the accomplishment of these innovations is not an easy or limited task, hence, cooperation between universities may facilitate reaching such goals. In addition, the outcomes of the third phase will be in need for wide experimental research in different educational settings to reach better quantitative metrics. Therefore, global cooperation would be imperative to establish the new version of educational quality in higher education. This global cooperation would definitely reduce the time and budget needed to produce international mechanisms for higher education quality assessment.

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# Indigenous WIL Exchange: Lessons from the University of Victoria, Canada – University of Newcastle, Australia Experience

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## ABSTRACT

The growth of work-integrated learning (WIL) over the past two decades has seen the development of a wide range of programs to meet the needs identified by students in terms of prospective career opportunities. More recently, however, increasing attention has been paid to issues of diversity, both among student participants and in terms of placement opportunities. While international placements have a long history in WIL, more recent developments in Indigenous WIL have emerged in response both to the educational goals of Indigenous students and to the needs identified by their communities of origin; at the same time, to the best of our knowledge, there have been no Indigenous-focused international WIL programs.

This paper will describe a new international Indigenous WIL exchange program between the University of Victoria's Co-operative Education Program and Career Services (Canada), and the Wollotuka Institute at the University of Newcastle (Australia), and situate its development in the literature on international and Indigenous WIL programming. It will also present results of assessments of the participating students' development of cultural competency, contributing to the literature in this area by describing our efforts to tailor current work in this field to the specific experiences and needs of Indigenous learners. The examination of this Indigenous WIL exchange program will provide a unique perspective into the cultural dimensions of learning that takes place for students, organizations and practitioners involved in the program, and offer some provisional thoughts on issues to keep in mind for other professionals undertaking work of this kind.

## INTRODUCTION

The Co-operative Education and Career Services Program at University of Victoria (UVic) located in Victoria, British Columbia (Canada), entered a unique Indigenous work-integrated learning international exchange partnership with the Wollotuka Institute at the University of Newcastle located in Callahan, New South Wales (Australia). Another unique feature of this program was the hybrid nature of the exchange, namely the Australian student came to Canada for an academic term, while the Canadian student went to Australia for a cooperative education work term. This exchange model was established through the University of Victoria's CANCOM-COOP project with funding from the Canadian Queen Elizabeth II Diamond Jubilee Scholarship program.

The first student exchange took place in the Fall of 2015, when a UVic student completed a co-op work term at the Wollotuka Institute in Australia, and an Australian student completed an academic term at the University of Victoria. The latter included participation in the LE,NONET Preparation Seminar followed by a LE,NONET community internship. Both students were assessed on their intercultural competencies at the beginning and at the end of their WIL experience. There were also a number of support structures in place for the students to ease their transition into their host country and institution.

This project provided an opportunity to share knowledge and to connect Indigenous students from Canada with other Indigenous communities across the world. The examination of this Indigenous WIL exchange program will provide a unique perspective into the cultural dimensions of learning that takes place for students, organizations and practitioners involved in the program, with a focus on the unique characteristics of an Indigenous exchange, and offer some provisional thoughts on issues to keep in mind for other professionals undertaking work of this kind.

#### UNDERSTANDING WORK-INTEGRATED LEARNING (WIL)

Work-integrated learning (WIL) is an umbrella term to describe a range of experiential educational activities that integrate theoretical learning at an academic institution with practical application in workplaces relevant to student's program of study or career goals (Sattler, Wiggers, & Arnold, 2011). WIL programs such as co-op offer many benefits to students. Through an exhaustive review of research, Dressler and Keeling identify an array of career benefits including: stronger career identity and career decision-making, along with increased employment opportunities, salary progression and career progress (Dressler & Keeling, 2004). Learners can also gain skills not taught anywhere else in the curriculum (Little, 1998) such as self-management (Reeders, 2000), self-confidence and willingness to take initiative (Postle, 2000). Personal capabilities identified through Dressler and Keeling's research included: increased self-efficacy, self-confidence, autonomy, initiative, and responsibility, and improved teamwork, interpersonal relationships, time management and ethical orientation (Dressler & Keeling, 2004).

Furthermore, work-based placement learning contributes to improved academic performance in students by developing interpersonal and intrapersonal skills (Jones, 2008). WIL programs have also been shown to support student engagement and retention through strengthening the learners' understanding of a subject or the relevance of their studies to a range of contexts (Avenoso & Totoro, 1994; Carini, Kuh, & Klein, 2006; Kuh, 2010; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Somers, 1986). In addition, WIL programs that help students develop a greater understanding of the needs of the workplace can increase their workplace engagement (Ipsos Reid, 2010).

Crucial to the learning process through any form of experiential education is an opportunity for students to reflect upon their learning (Schön, 1983). This reflection enables the student to make meaning from the experience, and engage in future experiences with that learning helping to shape their responses, beliefs and actions (Kolb, 1984). Reflection, guided by this new meaning, is oriented toward future action, with the potential to transform assumptions and intentions underlying this action (Aoki, 1984; McRae, 2015).

#### WIL AT UNIVERSITY OF VICTORIA

In the co-op program at UVic, this process of reflection is supported through two primary pedagogical practices: a competency assessment module and a final reflective assignment. The competency assessment module is based on a competency framework with a set of competencies that allow the student to set learning goals not necessarily linked to a standard of achievement, but rather to the whole learner (European Centre for the Development of Vocational Training, 2009). These learning goals are established at the beginning of each work experience and then assessed by both the student themselves and their employer supervisor at the mid-point and end of each work term. The core competencies included in this module are personal management, communication, managing information, research and analysis, project and task management, teamwork, commitment to quality, professional behavior, social responsibility, and continuous learning (University of Victoria, n.d.).

For students engaged in an intercultural experience, the framework includes a set of intercultural competencies based on cultural intelligence theory developed by Earley and Ang (2003) that identifies four dimensions of competence required for effective intercultural encounters: meta-cognition, cognition, motivation and behavior (Earley & Ang, 2003; McRae & Ramji, 2011). Cultural intelligence is a distinct construct that can explain how people vary in their ability both to cope with diversity and to function in cross-cultural settings (Ang & Inkpen, 2008).

The *motivational* dimension of cultural intelligence relates to an individual's ability to focus attention and energy toward culturally diverse interactions (Ang et al., 2007). This concept is based on the expectation of success and the value given to this success. Individuals with high levels of motivation are intrinsically and extrinsically motivated and have the self-efficacy (Bandura, 1977), to be successful in these situations (Ang et al., 2007). Individuals with high motivation have a strong drive to engage in culturally diverse interactions. They see value in diversity and have an inherent interest and ability to function effectively within challenging diverse settings.

The *cognitive dimension*, or cultural knowledge, is about learning the norms and practices of different cultures and includes an understanding of cultural universals and systems, as well as cultural differences (Van Dyne et al., 2008). Individuals with strong cultural knowledge understand that different systems exist in different cultures and result in culturally specific social, political, economic and interpersonal interactions and contexts

The *meta-cognitive*, or strategic, dimension refers to an individuals' awareness before and during intercultural interactions and involves capabilities such as planning, monitoring, and revising understandings of culture (Ang & Van Dyne, 2008). This awareness requires conscious self-reflection while engaging in cross-cultural interactions, where an individual actively engages in challenging their assumptions and biases, and developing new strategies to improve these interactions (Van Dyne, Ang, & Koh, 2008). Individuals with this ability are better prepared for, and better able to adjust while engaging in, culturally diverse interactions. The final dimension of cultural intelligence, *behavior*, relates to the ability to appropriately adapt verbal and non-verbal behaviors for culturally diverse situations (Ang et al., 2007). Behavior is the most apparent dimension to others and the most easily used to interpret, or misinterpret, intent (Ang & Van Dyne, 2008). Individuals who have strong abilities in the behavioural dimension appreciate the effect their verbal and non-verbal behaviors have on others, and communicate effectively.

Research on cultural intelligence has demonstrated that it can be used to predict a number of outcomes: adjustment, well-being, cultural judgment and decision-making, and task performance in culturally diverse settings (Van Dyne et al., 2008). Cultural intelligence has been shown to have predictive validity over and above demographic characteristics, personality, general mental ability, emotional intelligence, cross-cultural adaptability, rhetorical sensitivity, cross-cultural experience, and social desirability (Van Dyne et al., 2008).

#### CULTURAL INTELLIGENCE AND INTERNATIONAL EXCHANGES

Student mobility today is at levels not seen before. CBIE (2015) reports that 2014 saw over 5 million internationally mobile students (Canadian Bureau of International Education, 2015). Students embarking on international experiential learning opportunities enjoy many benefits. Ninnes and Hellstein (2005) state 'the internationalization of higher education appears to provide increasing opportunities for academics to become global travelers, makers of difference, effectors of personal change, and facilitators of global progress' (quoted in Intolubbe-Chmil, Spreen, & Swap, 2012, p.166). According to Davis and Mellow (2003) an international experiential learning opportunity will challenge the participant's identity, understanding of their own culture and their perspective on the global job market (quoted in Elmore, 2006, p.117).

Cultural intelligence provides students with a tool to assess and develop their cultural intelligence as they navigate the challenges posed during these international opportunities. These challenges are further magnified when the international exchange also involves an additional cultural aspect that this Indigenous international exchange program poses.

#### INTERNATIONAL INDIGENOUS WIL EXCHANGES

Indigenous perspectives are traditions and customs of the Indigenous people of the land, with spiritual, emotional and physical relationships to the land (Cardinal, 2001, p. 180). Cardinal claims that Indigenous people have several levels of knowledge in relation to their environment, land and ancestors (2001, p.181). Lavallée also includes a relationship to 'all living things, and with the earth, the star world, and the universe' in her description of Indigenous epistemology (2009, p.23). Kirkness and Barnhardt recommend that universities need to 'create an environment in which [Indigenous] students began to "feel at home", in order to recruit and retain more

students' (1991, p.5). They also highlight the insight that Indigenous students are not seeking higher education just for a job, but have deeper reasons connected to responsibilities to their families', communities' and nations' goals of self-determination, social and economic development, and cultural revitalization. They recommend that education systems need to respect Indigenous students, be relevant to their worldviews, offer reciprocity in their relationships with others, and help them exercise responsibility over their own lives.

Monroe and colleagues (2013) claim that successful Indigenous education requires an authentic foundation of cross-cultural awareness globally. They assert that students need to become familiar with a variety of cultural worldviews and be able to engage in intercultural dialogue (p.325), and they use the term *Indigenous knowledges* in the plural to acknowledge the diverse cultural ways of knowing between Indigenous communities. They also highlight that although there is a shared history of colonization and some shared values in relation to the land, there are also distinct differences (p.320). These insights played a key role in shaping the programming at UVic for the incoming Australian student through the CANCOM-COOP program, supported by specific guidance from Elders.

#### THE UVIC-UON INDIGENOUS EXCHANGE PROGRAM: DEVELOPING INTERCULTURAL COMPETENCE THROUGH AN INDIGENOUS LENS

As mentioned earlier, student exchanges took place in both directions, with one student hosted by each partner institution. As a debriefing with Wollotuka Institute had not yet happened at the time of this submission, the majority of this paper focusses on the programming developed for the incoming Australian student.

The Australian student completed an academic exchange, taking courses in the Faculty of Education, as well as the LE,NONET Preparation Seminar, which is part of the Indigenous Studies Interdisciplinary Minor Program at UVic. In January 2016, the student completed a LE,NONET Community Internship with the WSÁNEĆ School Board (WSB), an Indigenous-operated organization providing education ranging from the pre-school to adult level, and located on the Tsarlip Nation in Brentwood Bay, BC.

LE,NONET (pronounced "le-nong-it") is a SENĆOŦEN word gifted to the university by the late Earl Claxton Sr. (YELKÁTFE) and Elder John Elliott (STOLØEŁ) that literally means "paddling a canoe in a storm and making it through to the other side. In a more figurative sense, LE,NONET can also be taken to mean "success after enduring many hardships." Through the LE,NONET Project, Hunt and colleagues identified a series of key principles and best practices for supporting Indigenous student success (Hunt et al., 2010, p. 106). These include reciprocal learning, supporting Indigenous identity development, culturally relevant programming, community building, relationship building and individualized programming.

Current LE,NONET programs, offered through the Office of Indigenous Affairs, have been developed based on the principles identified by the LE,NONET Research Project. Courses are delivered as part of the Indigenous Studies Minor Program. LE,NONET provides supports to Indigenous students in three key areas: academic (Preparation Seminar, Community Internships, Research Apprenticeships, Graduate Seminar), social and cultural (Campus Cousins mentors) and financial (bursaries for students with identified needs, stipends for students completing Community Internships and Research Apprenticeships). These supports, along with the key principles they espouse, are highlighted in this section.

With respect to the principle of reciprocal learning, the visiting student from Australia had many opportunities through the LE,NONET Preparation Seminar to share Australian cultural knowledge with classmates, staff and faculty. During time spent at UVic, classmates from the Wollotuka Institute in Australia came for a tour of campus, adding an opportunity to heighten cross-cultural awareness between Canada and Australia. In addition, a group of Indigenous students from another Australian university visited UVic for a two week exchange, where they were connected with students, faculty and staff, and also had a community visit to the Australian student during the Community Internship at WSÁNEĆ School Board (WSB). This provided Indigenous community members the chance to connect and share cultural similarities and differences from the visiting exchange student, and also interact by hosting a group of students from another Australian university.



*Indigenous identity development*, another principle identified by the LE,NONET Research Project, was fostered in the classroom, through the community on campus, as well as in a local Indigenous community during the Community Internship. There were many opportunities to share stories and experiences and to build cross-cultural awareness.

*Culturally relevant programming* was provided for both students, and began with a welcome and departure ceremony (for the incoming and outgoing student) guided by Elders from the local Indigenous nations. Indigenous Coast Salish cultural traditions were followed by providing a traditional welcome to the Lekwungen territory by an Elder from the Songhees Nation, an opening prayer by an Elder from the Tsartlip Nation, and a Blanketing Ceremony for each student to bless and protect them on their journeys. The Elders also provided words of encouragement to the students, reminding them to maintain their connection to their own homeland and cultural traditions. The Australian student also was able to make connections to a variety of Elders both on-campus as part of the Elders' Voices Program, and also within community during the community internship.

*Community building* began within the LE,NONET Preparation Seminar, and the relationships to staff and faculty within the First Peoples house. However a key element to the visiting student's experience was the support and encouragement from the Campus Cousins program, a group of upper year undergraduate and graduate students who volunteer their time to create events and provide opportunities for social networking and community building. The Campus Cousins embraced the incoming visiting student and ensured the student was welcomed, included, and invited to many events.

Relationship building opportunities were provided through the LE,NONET Preparation Seminar, staff and faculty at UVic, the Campus Cousins, and the community internship. Lifelong connections were built and that will continue through future student exchanges and continuation of the partnership with Wollotuka Institute.

*Individualized programming* was achieved through the guidance of the LE,NONET Preparation Seminar, where students have the opportunity to choose a community internship that meets their cultural, academic or spiritual needs. The visiting student was studying education, with a keen interest in Indigenous operated education programming. The *WSB* was chosen due to the multiple levels of educational programs: pre-school language immersion, elementary school with language immersion, high school and adult basic education programming. In addition, the *WSB* offers university preparation programs and community-based language programs through UVic beginning with a certificate and laddering into a bachelor degree and master degree.

#### WIL COMPETENCY ASSESSMENTS

Both the incoming and outgoing students were assessed prior to the exchange and given an opportunity to outline their learning goals. They both assessed their learning using the core competency framework, which includes learning objectives. This is a self-assessment tool for students to identify their level of competency with respect to core competencies such as personal management, communication, managing information, research and analysis, project and task management, teamwork, commitment to quality, professional behavior, social responsibility, and continuous learning.

Both participants also assessed their intercultural competencies and set learning objectives for this field, which included cultural drive, cultural knowledge, strategic thinking and appropriate behavior. In addition, the participants and their WIL supervisors assessed their core and intercultural competencies mid-way through the exchanges, and at the end. The Australian exchange student also completed the LE,NONET community internship contract with the supervisor, which identified goals, supervision details, as well as tasks, responsibilities and skills to be developed. The student also submitted a reflective learning journal, and completed a mid-point evaluation in collaboration with their supervisor. The mid-point evaluation form reviewed tasks and responsibilities set out in the contract, assessed progress to date, application of Indigenous ethics and protocols, and solicited examples of student reflecting on their own ethics and self-location during their placement. The student and the supervisor also had an opportunity to identify areas of strength, skills and abilities, as well as areas for the student to focus on for the remainder of the placement.

The student also completed a second journal reflection paper, as well as a final evaluation completed by both the student and supervisor. This evaluation focused on assessing the student's ability to appreciate diverse ways of knowing and being, their willingness to engage with diverse members of the community, their commitment to understanding and abiding by the community protocols, their capacity to self-reflect and self-locate in relation to the community, and their overall respect for, and understanding and appreciation of, the community. In addition, this form provided examples of the student confronting a challenge and how they overcame it, examples of applying suggestions that they were asked to focus on for the remainder of the placement, changes identified in student, and areas to reflect on when back in the classroom.

Comparisons were made with each student's assessments and reflections, keeping in mind the differences between an academic placement and work-term placement were very different in terms of access to resources and opportunities to connect with Indigenous communities. Due to ethical considerations, we are unable to focus on the results of these assessments, but rather will focus of program implications.

### PRELIMINARY FINDINGS

As this is an Indigenous specific cultural exchange, involvement of the Elders to provide guidance and support to the participating students is paramount. A traditional welcome to the territory is a culturally appropriate way to connect visitors to the land upon arrival. The blanketing ceremony was a way to show respect for the students by providing a blessing and protection for the students' journeys. The Elders also offered words of encouragement and reminded the students to stay connected to their own cultural teachings through language and ceremony. The Elders also play a critical role in providing a cultural orientation to their country and territory of origin, and provide cross-cultural teachings.

Supports for students need to be identified for students studying abroad prior to departure, both at their home institution and their exchange institution. Regular check-ins should be scheduled to ensure there are no difficulties that the student abroad is experiencing. While it was anticipated that the LE,NONET instructors and Elders would be the main source of support for the visiting Australian student, it was in fact the Campus Cousins, a network of Indigenous students, who had the most impact not only for the visiting student but also the hosting students. As a result, it became clear that peer mentorship is a key element to building community connections at the host institution.

An orientation to each country would be beneficial, especially Indigenous culture, history of colonization and contemporary issues. Each institution needs to develop the curriculum for the orientation, and the incoming student should have an introduction prior to departure, as well as an orientation upon arrival that will introduce them to academic, social, emotional and cultural supports they can access during their exchange.

The intercultural competency assessment model used in this case provided much insight into the relevance of cultural intelligence within the Indigenous context. While students going on international exchanges or WIL placements have to develop their understanding of their host culture, in this case, students had to enhance their understanding of their host country as well as the Indigenous culture within that country. This paper has described multiple ways in which efforts were made (through the LE,NONET programming) to enhance the Indigenous culture-specific knowledge for the incoming student. However, keeping in mind that the differences between the exchanges (e.g., academic vs. work-term) a culturally appropriate assessment model needs to be developed not only to capture the core competencies and the intercultural competencies, but also the specifically Indigenous aspects of the exchange, such as similarities and differences of Indigenous epistemologies and the impact on bringing that knowledge back to assist one's own community to help address contemporary issues.

### NEXT STEPS

Working closely with the partnering Institution will be important to determine what worked well and areas of improvements for the student experience. As this was a pilot project, further research needs to be conducted on best practices with Indigenous exchange programs. While there are many common experiences for Indigenous students globally as a result of colonization, it is important to acknowledge cultural differences and to provide

opportunities to learn how to work across differences. Other institutions wishing to embark on similar projects should consider ways to develop and assess Indigenous-specific intercultural competencies as part of Indigenous WIL projects.

With capacity allowing, the next exchange will include two students travelling together to each institution, which will allow for peer companionship, mentorship and support. To further research and assessment endeavors, ethics approval will be sought to elaborate on research findings and the ability to share with other institutions wishing to work in this area. Additional partnerships with Indigenous centers and institutions will be sought to increase the Indigenous cultural diversity experiences for students travelling to and from UVic. The assessment model will be modified to ensure the same assessment methods are being used and that an Indigenous specific cultural competency framework is created. An Indigenous methodology that honors the diversity of Indigenous cultures will be developed for the purposes of this research project.

It will be mandatory for UVic students travelling abroad to complete the LE,NO~~NET~~ Preparation Seminar prior to departure. This will provide students with a foundational understanding of ethical considerations for working in Indigenous communities and how to follow the teachings of the Elders to carry and practice our own Indigenous teachings with them, as well as working with a good mind and heart. It will also be recommended that host institutions develop a culturally relevant orientation for incoming visiting Canadian students. It is hoped that these measures will help set the conditions for students to develop their intercultural competence within the indigenous context, in an international setting.

## CONCLUSION

The creation of an Indigenous-focused international WIL exchange has provided an opportunity to explore issues not contemplated by standard international opportunities. A preliminary assessment of the first exchange has identified the importance of culturally-relevant supports while also contributing to the literature on international WIL exchanges. At the same time, it has also identified the benefits of such international experiences, not only for those students undertaking them but also for the students at the host institution.

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# Is the Learning in WIL Truly Valued: Stakeholder's Perceptions of Academic Standards and Grading Practices in WIL?

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## ABSTRACT

This paper outlines the current perceptions of academic standards and grading practices in work-integrated learning (WIL) and provide current stakeholder perceptions from a qualitative constructivist grounded theory study in the Human Services sector. WIL academics acknowledge the different learning and teaching environments which exist between WIL and non-WIL courses and WIL academics are developing specific programs and courses to meet the needs of all stakeholders. Academics accept work within a WIL course at a lower standard than a non-WIL course. Assessment is said to drive student learning, though the value of a 'grade' within WIL is still not clear. Field placement students do not want their learning to be assessed beyond a pass/fail grade. Is then, the 'learning' in WIL as important as 'learning' in non-WIL courses? The challenges to mainstreaming WIL are not new and pedagogies that underpin WIL still need to be developed to reach parity with non-WIL courses for WIL to secure its place in quality teaching and learning agendas.

This leads to the importance of the research which has been identified in the study. If government driven agendas have directed Higher Education institutions in Australia to enhance the employability of graduating students and to meet the needs of a market-driven economy by graduating globally work-ready employees with the capacity to walk straight into a graduate position. WIL needs to be valued for the unique opportunity it provides students in 'learning' how to develop the workplace employability skills required by future employers

*Keywords: Learning, academic standards, grading practices, perceptions, WIL*

## INTRODUCTION

The fundamental purpose of higher education is to enhance the skills of students and ultimately to prepare them for employment after university (Von Treuer, Sturre, Keele, & Mcleod, 2011). With a market-driven economy the higher education sector has been directed to enhance the employability of graduating students therefore increasing the skills base of the workforce of the future (Von Treuer et al., 2011). These changing demands have created an expectation that universities "will respond in innovative ways to meet both the learning needs and career goals of all its students" (Orrell, 2004, p. 1) and that universities will look beyond only the technical skill and class-room based knowledge to develop specific workplace employability skills (Brodie & Irving 2007; Ferns & Pegden 2012).

The workplace is a "site of knowledge with its own curriculum" (Brodie & Irving, 2007, p.12) and students are immersed in an 'authentic' and holistic learning experience involving highly complex activities (Ferns & Moore, 2012). Work placements are supported by employers who are recruiters, valued by students who wish to be work ready, and initiated by academics who want students to experience theory in practice (Orrell, 2004). WIL is seen as having a significant part to play in the development of the attributes and capabilities desired by employers. Historically WIL has been part of a student's higher educational experience for over 100 years. Educational theorist Vygotsky (1978) spoke of learning being a social activity achieved through collaboration and experience which interrelates with Dewy's (1997) seminal theory of active learning occurring within the environment. WIL is more than merely providing the physical environment of a workplace as a site for students to experience work or to learn professional practice (Smith, 2012). WIL allows for the strengths of theoretical orientations of

academic education to be blended with the rich tacit practice knowledge of the university and workplace (Cooper, Orrell, & Bowden, 2010). The dispositional, conceptual and procedural knowledge of a profession can be learnt “through the experiences in practice settings and through authentic experiences” (Billett, 2009, p.3). The educational worth of students engaging in WIL can be shown through developing specific curriculum and teaching resources to be used before, during and after the WIL experience (Billett, 2009). WIL is now an important element in university and national education agendas.

Clear definitions exist of what constitutes WIL, and what university and accrediting bodies expect as learning outcomes, across different programs of study, both internationally and nationally. Internationally WIL is an ‘*umbrella*’ term used to describe all educational programs, with purposefully designed curriculum and learning strategies that combine and integrate theory within the practice of work (Atchison, Pollock, Reeders, & Rissetti, 2002; McNamara, 2013; McLennan, 2008; Patrick, Peach, Pocknee, Webb, Fletcher, & Pretto, 2008; Smith, Meijer & Kielly-Coleman, 2010). WIL is seen by many individuals within the university sector, to be crossing the boundaries of traditional learning and teaching practices. WIL is not new, nor are the explicit learning outcomes experienced by students. If learning is about how we perceive the world, understand and make meaning of the world and learning is multifaceted, students need to recognize their own learning needs and be able to identify the strategies required to meet them (Fry, Ketteridge, & Marshall, 2009). When the subject matter is perceived by the student as having relevance for their own purpose significant learning will take place (Moon, 2006). How a student perceives their learning environment influences their approach to learning and high quality learning outcomes.

Although WIL is viewed as a valuable and increasingly essential component of both undergraduate and postgraduate student learning experiences, the development of rigorous pedagogies to underpin WIL and its assessment are still being developed (Groenewald, 2009). A challenge for WIL is to “maintain academic standards and high quality learning outcomes” (McLennan & Keating, 2008, p.10) due to the perceived differing demands of all stakeholders. Therefore academic standards must address what a student is expected to learn, through learning outcomes clearly linked to assessment items, and to graduate attributes. One of the biggest challenges to designing a WIL program is assessment (Brodie & Irving, 2007; Orrell, 2011). Defining what is to be assessed and the purpose (learning outcomes) is paramount (Zegwaard, Coll, & Hodges, 2003), as academic standards of WIL are contentious and assessment of performance is undertaken by different stakeholders.

Assessment of WIL is less clear. Often, WIL is assessed using a non-graded, pass/fail result. There are clear advantages and disadvantages of this approach. WIL can also be assessed using competency-based, competent/not-competent; or a graded pass, 1-7 or pass to high distinction grading scale. Differing perspectives of the grading process and what constitutes a deserved grade exists between students and educators (Tippin, Lafreniere & Page, 2012). “Inadequate assessment is a lack of understanding about the nature of learning in the workplace, what is being learnt and how (Richardson, Kaider, Henschke, & Jackling, p.338). Patrick et al. (2008) reported that assessment of WIL is integral to effective WIL design and key issues remain in higher education developing and implementing effective assessment methods.

Grading is a powerful tool which can identify the most valuable kinds of learning in a course and is “a symbolic representation of the level of achievement attained by a student” (Sadler, 2009, p.807; Sadler, 2005). Grades are purposeful by having implications for a student’s sense of achievement and subsequent learning (Shim & Ryan, 2005). Woolfe and Yorke (2010) ask why assessment approaches do not reflect the blending of academic and practical components of a WIL course, for to grade the practical component pass/fail and academic assessment on a finer scale, leads to academic work being privileged. How students perceive grading fairness has also been identified as a precursor to student’s level of satisfaction in the grade awarded (Gordon & Fay, 2010), and the psychological response a student has to grades can be linked to their understanding of, how grades are assigned fairly (Gordon & Fay, 2010; Sadler, 2009a). An Australian case study by Jones et al., (2008) used broad literature available on WIL to investigate the academic standards and associated assessment practices. Although the findings were based on one particular industry (Urban and Regional Planning), the results can be transferred across other WIL contexts, due to the most significant initial outcome identifying that “the academic standards for

WIL is central to securing its place in a quality learning and teaching agenda" (Jones, Coiacetto, Budge, Coote, Steele, Galls, & Kennedy, 2008, p.251). A WIL curriculum needs to be designed with an underlying understanding of the centrality of practice to workplace learning.

## METHODOLOGY

The aim of the study was to identify why current academic standards and grading practices were being used, in the School of Human Services & Social Work (HSV), when research identifies disadvantages to a student's academic and professional future. Stakeholder perceptions, and the impact of assessment grading practices in WIL courses within HSV were obtained from the study. Students within HSV undertaking a WIL course are currently assessed using a pass/fail grading system for individual assessment items and receive a result of a fail or non-graded pass upon completion. The Constructive Grounded Theory (CGT) study used two separate research instruments, (survey & focus groups) to improve the quality of data collected. Statements extracted from the literature review were used to guide the questions used in the stakeholder questionnaires. The response rates were low in some categories with only two of 25 employers responding and 12 (31%) of academic staff, five (20%) of field supervisors and 14 (35%) of students responding. Within the completed surveys, not all questions were completed by an individual participant and this occurred across all stakeholders. The main areas focused on were grading, the field supervisor, and GPA score. The questions allowed for both dependent and independent variables to test the relationship between concepts and to describe information (Nadi, 2003) for example 'who should assess a student's achievement in WIL'. The surveys included comparable questions across the student, field supervisor and academic participants as well as individual questions for each stakeholder group. The employer's survey did not have any questions related to the other three stakeholder groups. The focus groups were given a set of open-ended phrases.

## SURVEY AND FOCUS GROUP PARTICIPANTS

The survey participants chosen for the study included 40 students currently enrolled in a field placement course; 24 field supervisors from organizations from the schools online data base system (SONIA); 24 employers at the same organizations and 38 academic staff currently involved in both delivering WIL courses and non-WIL courses in HSV. To increase the number of academic participants, the academic staff in a Griffith University elective WIL course (community internship) agreed to become part of the academic stakeholder group. Academic staff received a mailed copy of the invitation, with students, employers and field supervisors being invited to participate via email. Due to the low response rate an invitation to take part in a focus group, resulted in 1 group of five students, and three separate focus groups attended by a total of seven academic colleagues. Colleagues who participated in the focus groups identified also as external field supervisors, and past employees from the human services sector. The core categories; confidence in grading, individual recognition, GPA score, grading methods, and effort and motivation were used within the focus groups to prompt discussion. The research had ethics approval granted by the human ethics committee at Griffith University.

## LIMITATIONS

Due to the participants being non-random in terms of data being obtained from academics within HSV and only one other course and students only within the school, the transference of results is limited. Although the field supervisor and employer participants were randomly chosen, they have had contact with the researcher in some capacity and this may have reduced the number of responses. Statistical analysis by using tools such as SPSS was also not used within the study, due to the number of responses. Limiting the study to not include statistics may also limit the rigor of the study, even though a CGT study is about gathering the lived experience of a participant and keeping their voice in the findings.

## RESULTS AND DISCUSSION: STAGE 1 SURVEY

The survey data provided feedback showing that three forms of grading were being used: graded pass, non-graded pass and competency, by both the academics and field supervisors to assess student learning in WIL.

Students have only been involved in being assessed by a non-graded pass. Figure 1 below shows the majority of academics (n= 7) were involved in the non-graded pass/fail system.

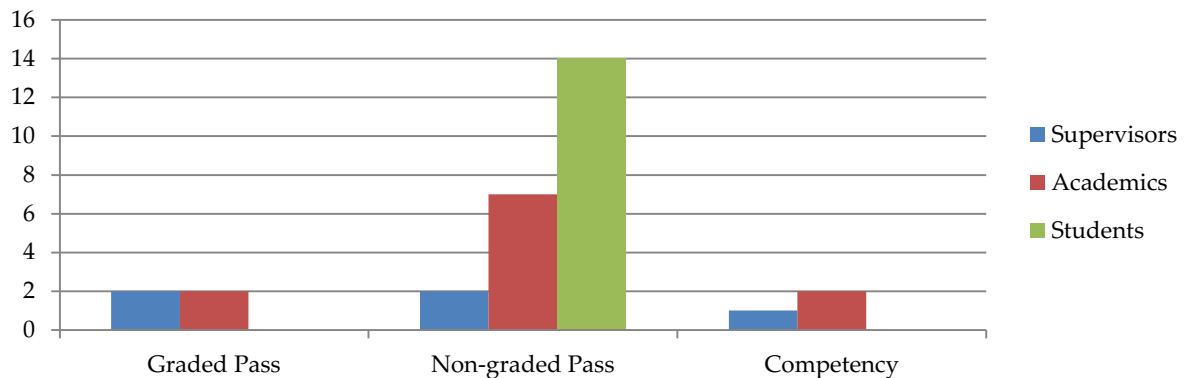


FIGURE 1: Current form of grading practices

Both field supervisors and academics were asked, should WIL be graded? The results below in Figure 2, show only 1% difference between more field supervisors would like WIL graded and only 1% difference between academics (n=5) who do not want WIL graded. Academics were asked if they had the same expectations on academic work in non-graded courses. Data also shows a 2% difference between academics (n=7) who didn't expect the same expectations on academic work and academics (n=5) who expected the same level of academic work as non-WIL courses.

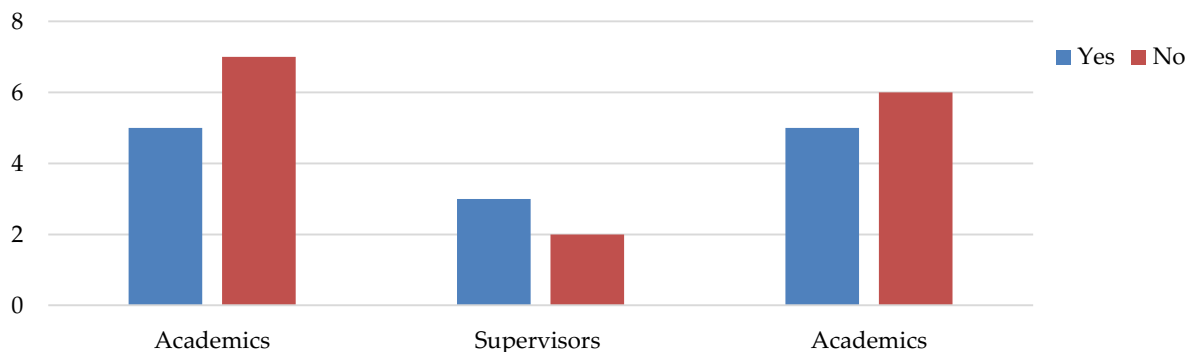


FIGURE 2: Academic expectations and Grading WIL

This identified that academics on average do not want WIL graded and are happy to accept work at a lower standard, whereas supervisors would prefer to see WIL learning graded. Supervisors discussed this would allow further information in more detail about a student and their work readiness. The concepts identified for the advantages to grade WIL as a non-graded pass were; less pressure on students, variables in the placement experience/fairness and removes levels of experience and competence of the field supervisor. One academic commented; "as students undertake very different types of placements. Grading as a pass/fail, makes grading more equitable." The concepts identified for the disadvantages for grading WIL as 'non-graded pass', are; student motivation, supports learning and variability in placements. Academics from a graded WIL course commented that; "students are motivated to achieve and increase their GPA and students comment on their displeasure with previous PASS/FAIL courses saying their efforts are not rewarded, not motivated to excel, so they appreciate this course's grading schema. "I believe students are more invested in deeper learning and breadth of opportunity in the experience in a workplace; sure it takes longer to grade than to just decide whether



something is satisfactory or unsatisfactory but the purpose of grading is to support student learning. It's a quality process."

### INDIVIDUAL STUDENT ACHIEVEMENT

Academics were asked; what form of grading shows a student's individual achievement. The highest response rate academics (n=9) believed graded pass, academics (n=5) non-graded pass and academics (n=3) believed competency showed an individual student's achievement as shown in Figure 3 below.

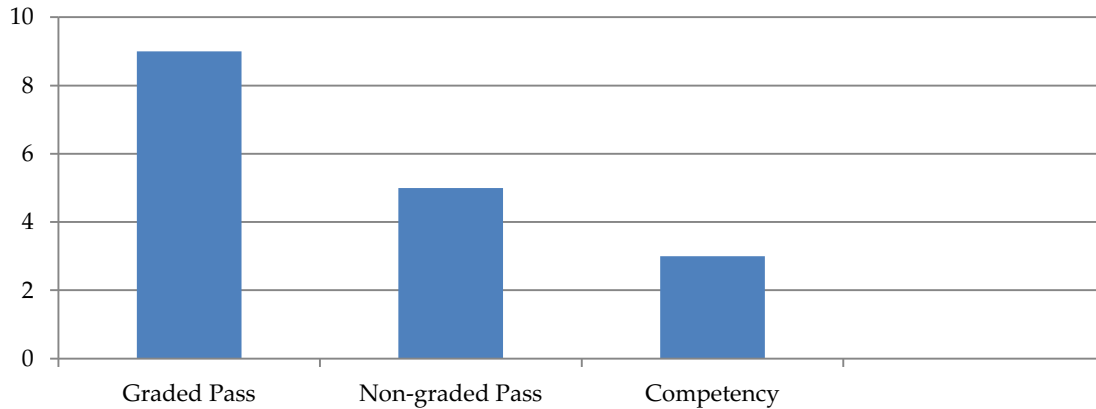


FIGURE 3: Individual Achievement in WIL

Academic staff (n=11) and students (n=12) are aware on average how grades affect a GPA score. What could be the underlying reason for students (n=9) to not wish for grades in WIL to count towards their GPA. If Academics (n=8) believe a WIL grade should count towards their GPA score; how can fewer academic staff wish for WIL to be graded as shown in Figure 4 below.

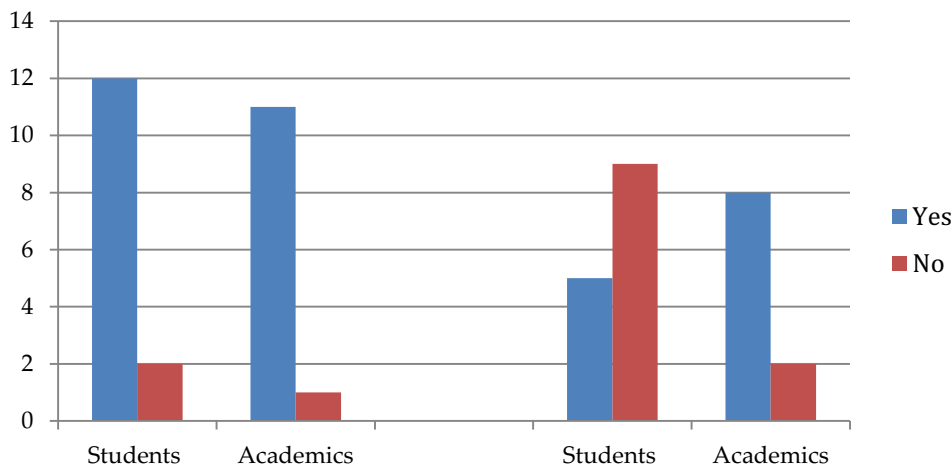


FIGURE 4: Achievement and GPA Score

Students said "they are already coping with quite a lot of stress and extra levels of stress are placed on them during field placement and if they care about their GPA and they want to keep it high, it would be additional stress to perform at their best to obtain a higher score and it might have implications with their clients and they may act out in front of their supervisors." Academics within a WIL course which is graded stated; students are more motivated to increase their GPA for future careers and study.

### RESULTS AND DISCUSSION: STAGE 2 FOCUS GROUPS

The five categories which emerged from the focus group data were; devaluing WIL, learning versus grading in WIL, purposeful assessment, student identity, and the field supervisor.

### *Valuing WIL*

Without prompting or suggestion a student simply stated; “I think it’s a horrible idea to think of grading students on placement”. This first opening statement opened the dialogue which linked to previously identified concepts of; student motivation and effort in pass/fail, prioritization of work and academics expectations which can be linked to the category of ‘devaluing WIL’. Students discussed how they didn’t put as much effort into their writing pieces for placement as they were all non-graded and put their effort into the graded pieces for other academic courses being undertaking alongside field placement, even knowing that in doing so, they could have had a negative effect on their learning during placement. Focus group participants discussed that giving a student written feedback on their effort was more important than receiving a grade on their WIL assessment, even though you give student’s written feedback on their effort in non-WIL courses which are graded. Academics voiced that a negative outcome can eventuate through students not being motivated to put effort into their learning while on field placement, “some are quite happy to just do enough to get their pass”.

### *Learning Versus Grading in WIL*

Students who are opposed to grading their field placement spoke of “working towards their grade rather than their learning”, “I think we do placement for our learning we don’t do it for a grade”, and “the whole point of going on placement is that you are learning through the whole experience and I think it’s the same with the learning plan and reflections, the goal of those is not necessarily the grade it’s about the process the grade is irrelevant.” Why are the students differentiating between learning in WIL courses and learning in non-WIL courses? Should not the goal be learning in both and the student have the same passion to be rewarded through a grade?

The current process of assessment fairness and how in non-WIL courses this is through moderation practices was discussed. How can you moderate in field placement when “you can have university supervisors, onsite supervisors and your course convenor, which is too many and it would be very difficult to be objective”, “it would be very difficult to grade fairly when we all learn in such different ways, it doesn’t seem that it would be conducive to learning to grade other than a pass/fail.” Are students actually aware of what is involved in ‘moderation?’ Different styles of student learning are not associated with just the workplace.

Students complete the following assessment items, reflective practice and learning plans with guidance from their field supervisor in all programs. Process recordings are currently only used as an assessment item by one program. Why then as students discussed in the focus group are they completing process recordings and learning plans and receiving no feedback? When an individual student is to be guided by the supervisor as the professional in the field, why is there inconsistency in the value and therefore use of the learning plan by supervisors? Students gave both negative and positive responses to the supervisor’s using the learning plan. “I never saw my supervisor; my supervisor never looked at my learning plan, never asked me about my learning plan. My learning plan had zero use during my placement. Played so little a role in what I learnt and really played no role in my placement.” “I had quite a different experience with every week at supervision we would look at my learning plan for that week and the few weeks ahead to see if we were on track. I was fortunate to have a supervisor who was invested and gave the time to help me achieve those goals.”

Academics find students are struggling with identifying what they are being assessed on. In the social work program the academics feel that the student has the whole placement to develop their potential and understanding and with different contexts in different placements it’s okay for them to walk away with awareness and “in some ways this is why it makes it difficult to grade, because the context counts so much in terms of where they are at in their learning and understanding. I guess you could grade though you would have to be very careful on how you assess them.” Reflective practice is a main piece of assessment for our students and they are given feedback to “identify areas of improvement in the way you think about practice.” They are not given a mark we give them real feedback, “so as long as they do them to some level of competence they are going to pass”. This is the same for the project report which is discussed at the mid-placement liaison visit. It’s “how valuable is the project to your learning and how valuable to the organization in terms of supporting them.”

Though, in the end it's also just a piece of evidence and ticked off as completed." Here in the first instance lies the diversity of field placement evident even within one school. There are two programs accredited by different bodies and therefore different accreditation standards apply for field placement.

#### *The Field Supervisor*

Throughout all the focus groups when discussing any individual code a focus participant would mention the added involvement of the supervisor. Codes of effective communication, the supervisor's role and supervisor's relationship all were discussed in relation to the word 'grade' being mentioned. The extra stakeholder in every placement which makes a WIL course different from a non-WIL course is the inclusion of a supervisor. Academics mentioned "my concern is have we placed too much pressure on the supervisor around assessment, have we asked too much of them? One program may have an onsite supervisor who works for the organization and an external supervisor for one student. The other program has all field supervisors in the organizations, "we don't use external supervisors so it would be too much to ask the field supervisor to mark a student's piece of work." A student spoke of her experience of two supervisors, "I had a difficult time in my placement between my infield supervisor and external supervisor and so I was unsure in how I was going. I felt that I shouldn't be there."

The relationship between student and field supervisor was also identified by both academic and student participants within the focus groups as playing a role in how students learn during placement and how they are being assessed. Students during the focus group discussed how "supervisors feel obliged to provide students on placement with a higher grade than perhaps they deserve, based on the relationship they form with their student and their mentoring role, essentially feel they are being graded themselves." Academics spoke of why it is important to have the right supervisor; "the right supervisor can make or break a placement, so with self-awareness and knowing how you learn and getting feedback about those things you need to have a good supervisor that understands as well." Students discussed; "I believe I was there to fill a quota. I didn't get adequate supervision; my supervisor was from another field. I was being held accountable for things I didn't understand after being left to my own devices. I think there was a huge breakdown between the university and supervisor." A relationship is required that will guide a student to become a future practitioner who is "an effective, self-directed and agentic learner throughout their professional life (Billet, 2009b). Students wished to meet their supervisor before commencing placement and both academics and field supervisors agreed this needs to be considered and discussed.

### CONCLUSION

What a student needs to learn and how to appropriately assess their learning within the field of Human Services remains a contentious issue. A student showing their capability through demonstrating their employability skills and growth as a professional practitioner should be as important within the program as a purely academic course, or the transference of knowledge into practice will be deemed less important. The future human service practitioner needs to take responsibility for managing their participation in the practice setting and therefore their learning (Billett, 2015). For change and progress to remain the focus of learning, and for theory and practice to not become competing domains within a WIL university curriculum (Cooper et al., 2010), all concerns need to be identified and raised as challenges/limitations to a successful WIL course to capitalize on the uniqueness of both learning environments. Consequently the design and management of a WIL curriculum is imperative and assessing the outcomes of WIL keeps it productive and focused on student learning outcomes.

Assessment plays a significant role in a student's experience of Higher Education and impacts on the quality of their learning and what a student achieves and is central to the curriculum (Boud, 2009). Research shows the impact grades can have on a student's future employment and study and positive impact on a student's sense of achievement. Should educators set out the expectations and assessment criteria in WIL courses to align with non-WIL courses in a degree/program? Or are stakeholders' expectations so different in WIL that academic standards and grading practices cannot align with the expectations in non-WIL academic courses to be valued the same

within a university program? To embed WIL into existing policies and place equal status for WIL and non-WIL assessment processes within the university domain may be a step towards parity (Yorke & Vidovich, 2014). A clear framework is needed to understand what a 'grade' means within a WIL course and its associated degree program focusing on learning outcomes.

#### FUTURE RESEARCH

This qualitative constructive grounded theory study identified more questions, than answers. Further research is required to establish if a student's current assessment in a WIL course values the unique learning and growth that occurs in a field placement, to graduate human service practitioners who are work-ready to practice in an every changing international mobile society. The research will need to look more closely on current practices which exist between all stakeholders, and place the student at the center of a new more flexible WIL curriculum.

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# Evaluation of a Three Year Study Investigating Staff Workload Associated with CWIE Delivery: Implications for Research and Practice

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## ABSTRACT

Cooperative and Work-Integrated Education (CWIE) is thought to be more work and resource intensive to design and deliver than classroom based courses, with much of this work reportedly undervalued and unrecognized. Academic workload is notoriously difficult to measure, and with few available studies on CWIE workload, our research set out to systematically collect empirical data on the amount and type of work involved for staff in teaching, administering and supporting CWIE courses. A self-report survey tool was administered to academic and professional staff at an Australian university to capture quantitative weekly data for nine categories of workload tasks including assessment, student/partner related activities and curriculum delivery. Qualitative data was also collected via individual interviews and a focus group. Over a three year period, 61 course offerings have been surveyed, with 30 staff participating in semi-structured interviews. Data collection is in its final phase, due to finish in February 2016. This paper will provide an initial evaluation of the mixed-methods study, based on the experience of the research team and feedback from participants sourced through semi structured interviews. Participants appreciated the study, highlighting its value in recognizing the work involved in delivering quality CWIE, and were highly satisfied with the survey tool. However, there were a number of challenges encountered during the study including maintaining data quality, capturing the complexity of workload as well as work completed outside of formal teaching periods. Implications for future research are discussed, as well as the impact of this study on CWIE policy and practice.

## INTRODUCTION

Accurately measuring academic workload is challenging. Previous research has tended to rely on self-report data (e.g., Kyvik, 2013), where staff indicate the amount of time they spend on various tasks per week. Such data can be limited by recall errors depending on whether data is collected in real time or retrospectively (Bentley & Kvik, 2013). There is also the potential for individuals to exaggerate workload (Tight, 2010) and/or for the survey instrument to fail to account for important categories of 'hidden' workload. Measuring CWIE workload is especially difficult because CWIE is not accounted for in most academic workload models (Emslie, 2011), and teaching and administrative roles can be interconnected in CWIE (Bates, 2011). Few studies have systematically investigated the workload associated with CWIE, and this lack of empirical evidence makes estimating resource requirements, costs and skill sets associated with the design and delivery of such experiences difficult (Clark, Rowe, Cantori, Bilgin, & Mukuria, 2016). Two exceptions are Bates (2010, 2011) in Australia, and Peters, Academia Group Inc (2012) in Canada. Both identified a number of tasks involved in the delivery of CWIE, however did not measure actual workload hours. Recently a few studies are starting to emerge which focus on the workload implications of particular types of CWIE, for example Acton, Chipman, Lunden, and Schmitz's (2015) investigation of workload associated with simulations, but these are not comprehensive of all types of CWIE.

In 2012 a study was initiated at a large Australian university to measure workload associated with the teaching, administration and support of CWIE courses. At that time, the University had recently implemented an

institution wide CWIE program called PACE (Professional and Community Engagement). The organization and structure of PACE differed to other CWIE initiatives which were positioned within particular disciplines with a long history of practice-based learning (e.g., teaching, engineering and health sciences). By contrast, PACE courses are offered in almost every discipline of the comprehensive University. While these courses are almost all convened by academics in departments (e.g., business, statistics, sociology, psychology), they are supported by academic and professional staff located in a central PACE office and Faculty-based PACE teams. As a result the division of labor between course convenors and non-academic staff (e.g., professional staff providing partner development and student support services) differs to other CWIE models.

PACE also differs to other CWIE initiatives because of its size and scope. It aims to provide high quality CWIE experiences to all of the University's undergraduate students across all disciplinary fields, not just high achievers or those who are particularly community minded. Further, the program encapsulates an extensive range of CWIE experiences including service learning, community development projects, internships, fieldwork, practicums, and industry panels with project mentoring. Once fully operational, the PACE program will require the provision of well over 8,000 CWIE experiences per annum. While many staff embraced the vision of PACE from its inception, there were also concerns about how an initiative of this size would be resourced, how it would impact on academic workload, as well as whether existing workload models effectively captured all the tasks involved (e.g., sourcing and maintaining industry/community partnerships). In response to these concerns, the research team initiated the 'PACE Workloads Study', a research project designed to collect data on the amount of work and types of tasks involved in the design and delivery of CWIE courses at the University, with the aim of informing both institutional/Faculty resourcing frameworks and workload models, as well as contributing valuable empirical data to the broader CWIE literature.

Data collection for the 'PACE Workloads Study' formally commenced in 2013, and over a three year period (2013-2015), 61 course offerings have been surveyed. Of the 46 staff participating in the survey, the majority are course convenors, i.e., academics ( $n=35$ ), with a fewer number of non-academic/professional staff ( $n=11$ ).<sup>3</sup> Thirty participants have also partaken in individual semi-structured interviews and focus groups. The aim of this paper is to evaluate both the value of the study and the survey data collection tool, based on the experience of the research team and feedback from participants sourced through interviews.

## METHOD

### *Survey Instrument and Data Collection Procedure*

Prior to every teaching session all PACE course convenors were invited to participate in the research, and asked to complete the PACE Workloads survey tool which has two components: a one-off 'preliminary survey' that captures demographic information about the course and participant; and a 'weekly survey' that captures workload data (a more comprehensive description of the survey instrument is reported in Clark et al., 2016). The preliminary survey is completed five weeks before the formal teaching period begins and aims to identify potential variables that might impact on a course's workload in comparison to other courses (e.g., the type of CWIE activities that students undertake, the location of these activities and associated level of risk), as well as information on the participant including the nature of their employment (whether they are a course convenor, teaching assistant, professional staff member).

The 'weekly survey' captures workload undertaken before, during and after formal teaching periods (i.e., it captures preparation work as well as work associated with the delivery of the course) and measures the number of hours participants spend across nine categories of workload tasks: Curriculum development/preparation; curriculum delivery; assessment of student learning; student-related tasks; partner-related tasks; administration; risk assessment/legal/ethics/insurance; PACE-related research; and PACE-related organizational service and

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<sup>3</sup> The number of participants ( $N=46$ ) differs from the number of course offerings surveyed ( $N=61$ ) because some staff participated in multiple surveys.



leadership. The majority of surveys were completed through online survey software Qualtrics. However, a small number of participants opted to complete surveys via an Excel spreadsheet.

#### *Sources of Data*

Findings reported in this paper are based on two sources of data. Firstly, interviews undertaken with 19 participants (out of the 30 staff interviewed, 19 had also completed the survey), and secondly, the observations and reflections of the research team (as sourced from meeting minutes, researchers' notes, etc.). Staff who participated in interviews ( $F=16$ ;  $M=3$ ) were asked a series of questions about their workload as well as about the survey tool. The latter questions included: a) Did you experience difficulties completing the weekly surveys? If so what were they? b) Are there any aspects of your workload that you feel the survey does not adequately capture? If yes, provide details; c) Did you use the Excel spread sheet/s to record details of your workload during the week? If yes, were they helpful? If not, why? What improvements could be made? d) Is there anything else you would like to add about the survey? Interviews were scheduled towards the end of each teaching session (or shortly after), with the aim of encouraging participants reflections on workload that semester.

## FINDINGS AND DISCUSSION

#### *Value of the Study*

Seventy percent of participants explicitly stated the importance of the research and expressed appreciation that the study was being undertaken to identify hidden workload in PACE courses which are very different to teach and administer than traditional courses. This was a particularly interesting finding given that none of the interview questions directly asked participants to express a view about the value of the study – such reflections were unprompted. Staff commented on its value in revealing work “not seen by people” (Participant 2), as well as highlighting the need for existing workload models to account for variation not only between CWIE and traditional classroom based courses, but also variation across different types of CWIE courses (e.g., service learning experiences, international volunteering, local internships) and different disciplines. Participants appreciated having the opportunity to contribute to and inform workload model design and management discussions/decisions both as individuals and collectively (“the more voices you can get the better it is” – Participant 11). Indeed, the preliminary analysis of quantitative data from this study provided guidance for the revision of some Faculty based workload models in 2015 where the unique nature of PACE courses was formally recognized and extra time was allocated within the workload models.

Additionally, partaking in the study afforded participants a number of personal benefits including the ability to document their own workload data, which was helpful in drawing attention to the amount of time tasks take and in negotiations with their managers regarding workload allocations or securing additional staff/resources (“I feel like I'll be more educated and armed going into the workload discussion” – Participant 13). Participating in the study also contributed to positive feelings in some:

It's made me feel quite positive. Even though it's been quite time consuming, I'm really glad you're doing the work because I felt like the work associated with these units [courses] was going unrecognized and unnoticed and it was all a bit invisible. I was getting a bit down about it. (Participant 13)

The production of valuable evidence to inform workload negotiations is an important outcome of this study, given workload is cited as a major contributing factor to stress and burnout in academia (Lackritz, 2004).

#### *Feedback on the Survey Tool*

Overall feedback about the survey tool was very positive, with all 19 participants reporting that the survey was comprehensive, capturing the diverse range of workload tasks (both professional and academic) required in CWIE delivery. As stated by Participant 6, it “captured the essence of the job”. Likewise, few respondents reported problems completing the survey or understanding the survey questions or categories. Both findings can in a large part be explained by the extensive consultation undertaken in the survey design phase (see Clark et al.,

2016). Only two participants commented on aspects of their workload that weren't captured by the survey – workload associated with fieldwork trips and other courses which required the staff member to be 'on duty' 24/7, e.g., supervising students overseas.

### *Challenges and Strategies*

Despite the positive feedback, there were a number of challenges to collecting workload data via weekly online surveys. These are summarized in Table 1, and form the basis of the following discussion, as well as strategies employed by the research team to address them. The most frequently reported challenge by participants was difficulties in estimating time spent on tasks. This was mostly because of the fragmented nature of the way in which CWIE work is undertaken, i.e., in "bits and pieces" (Participant 3) and having to manage urgent student/partner matters as they arise. As noted by Participant 3, dealing with such matters "disrupts your entire workflow in your day because you've got to respond". The "erratic" nature of CWIE workload has been noted in other studies, particularly for professional staff involved in the recruitment of internships and projects (Levin, Pocknee, & Pretto, 2010, p. 9).

Many expressed concern they may have under reported time spent on particular tasks. In response the research team developed Excel spreadsheet diaries for participants to promote more accurate record keeping of workload tasks during the week. These spreadsheets were continually refined over the duration of the data collection period. Most participants reported keeping track of their hours during the week using a diary, calendar or phone app if they didn't use Excel. Spreadsheets also encouraged staff to record their data in real time, rather estimating hours retrospectively when online surveys were issued at the end of each week. Although the survey itself wasn't time consuming, keeping a diary or records of workload during the week proved difficult for some, and others completed surveys late because of workload pressures. In such cases, participants estimated the hours in retrospect, which is not desirable given its susceptibility to errors of recall (Kyvik, 2013).

A related concern identified by the research team was the potential for overestimating workload. In an earlier version of the survey, participants recorded their workload hours for nine individual categories of workload tasks, but there was no option to review their responses in terms of the total hours worked, before submitting the survey. In response to one data set collected in the first session, where the workload hours appeared higher than expected, a summary table was developed and inserted at the end of the survey so that participants could double check the accuracy of their workload hours for each individual task category as well as the total workload across all categories (refer to Figure 1).

Only a few participants expressed concern that they had not allocated workload to the correct task categories. This was mainly in response to a perceived overlap or "blurring" of some responsibilities, namely between teaching and administrative tasks:

...sometimes I had to think is this admin or is this teaching...maybe I wasn't consistent in my decision making time-to-time, but it's hard...even finding the clients; if you think about it, is this admin or is it teaching related activity?... What do we call admin? I mean what do we call teaching? When students are involved then it's teaching. When students are outside it's not. (Participant 18)

Task	Hours
Development/Preparation of Curriculum-Related Materials	5
Curriculum Delivery	
Assessment of Student Learning	3
Other Student Related Tasks	10
Partner Related Tasks	1
Risk Assessment, Legal, Ethics, Insurance Related Tasks	
Administration (General) Tasks	2
PACE-Related Research	
PACE-Related Organisational Service and Leadership	
<b>Total</b>	<b>21</b>

FIGURE 1: Screenshot of weekly survey showing summary table

This issue has been reported in the literature as a distinct feature of CWIE courses (e.g., Bates, 2011). The interconnectedness of teaching and administrative roles makes it particularly difficult to measure the work involved in sourcing, negotiating and maintaining industry/community partnerships for example (Clark et al., 2016). There were also difficulties for some staff in separating course work with other PACE related work, or work between different PACE related jobs, as well as capturing work completed outside of formal teaching periods because of the “nature of the units” which was “ongoing” (Participant 13):

...you need to be aware that these units [courses] just go from 1 January to 31 December. That's the nature of them. I - it's just not a sessional experience. I work all year on this unit. There isn't a day where I don't do something either for the unit for next year, send out an email to a potential new partner. You're always scoping for new partners. (Participant 13)

There could also be overlap in workload across sessions (i.e., staff starting one course when a preceding one was still running due to the amount of preparation work involved). This was especially difficult for professional staff responsible for administering multiple courses, where workload for each could be difficult to separate. The unconventional nature of CWIE courses makes it difficult to collect precise data for particular session offerings. While participants were asked to estimate any preparation work done in the preliminary survey to partly address this problem, an alternative might be to commence surveys at different times for different courses depending on when staff begin their initial preparations. The downside to this approach is that it will be time consuming to administer, as well as for participants to complete (with preparation for some courses starting a year in advance).

Several participants commented on difficulties with the survey in capturing the complexity of workload – the “grey stuff” (Participant 3). Responses fell into two categories. Firstly, comments regarding the depth/richness of data:

The complexity of partner engagement, the complexity of student engagement, the complexity of assessing things. It doesn't capture that at all. It's kind of a coarse tool which will cover a layer but it will not do the complexity so it's a good thing that you do interview as well. (Participant 11)

And secondly, difficult to measure variables, such as the well-being of staff:

...what's not collected is the mental health stuff, how much stress that you feel under, the impacts on your physical or mental health. (Participant 17)

Semi-structured interviews proved a useful method for capturing both the complexity of workload and providing contextual information on other variables not picked up by the survey, as well as revealing nuances of the diversity of CWIE courses offered. They were thus used as both a verification and risk mitigation tool to check and validate survey data, as well as exploring participant's perceptions more deeply (Clark et al., 2016).

TABLE 1: Data collection challenges and strategies to address them

Challenges	Strategies
Ensuring data quality: <ul style="list-style-type: none"> <li>• accuracy of time estimates</li> <li>• participants over/under estimating workload</li> </ul>	<ul style="list-style-type: none"> <li>• Excel spreadsheets</li> <li>• Summary table inserted into survey</li> </ul>
Capturing the complexity of workload, e.g. <ul style="list-style-type: none"> <li>• aspects of workload not captured</li> <li>• clarifying/interpreting tasks</li> <li>• overlapping workload across sessions, jobs etc.</li> <li>• emotional aspects, e.g., stress</li> </ul>	<ul style="list-style-type: none"> <li>• Regular check ins with participants to ensure correct completion of survey</li> <li>• Check and validate survey data and clarify any 'odd' data via interviews</li> <li>• Collection of "pre-survey" preparation time estimates</li> </ul>
Less than full participation in the study, possibly due to: <ul style="list-style-type: none"> <li>• the sensitive nature of workload, or</li> <li>• staff already full capacity not having the time</li> </ul>	<ul style="list-style-type: none"> <li>• Participatory and consultative approach to research design</li> <li>• Individual data de-identified and reported at level of 'course type'</li> <li>• Strategies to minimize time required to complete survey include Excel spreadsheets, flexibility in mode of data collection</li> <li>• Additional funding sought to extend the data collection period for 12 months</li> </ul>
Less than full participation during the survey period, due to: <ul style="list-style-type: none"> <li>• Low motivation of participants</li> <li>• Participants not having the time</li> </ul>	<ul style="list-style-type: none"> <li>• Research Assistant support offered</li> <li>• Regular follow up phone calls/visits (when required)</li> </ul>

From the perspective of the research team, ensuring the highest possible response rate was a major challenge (the completion rate was 77%). Participating in the study demanded substantial commitment from staff, with approximately 24 weeks of surveys (five weeks of preparation work, 15 weeks of work during formal teaching periods as well as four weeks after the end of each session (i.e., marking, finalizing of grades). The participation rate of professional staff was especially low, which was of concern as one of the research questions was about the division of labor with respect to CWIE courses. This prompted the research team to organize a focus group to gather non-academic staff perspectives as an alternative to completing weekly surveys.

Motivation and/or lack of time was an issue for a small number of participants even when support was provided by the research team, as reflected by the drop-out rate (23%). In the first session of data collection, response rates were so low that a number of strategies were initiated including follow up phone calls to participants both to identify the reasons for non-completion and offer assistance. These were successful, although time consuming for the research team. The resourcing required to administer this type of survey is a limitation of the study, although providing extra support was deemed necessary to ensure data quality. Senior academic managers in each faculty and the union were also asked to raise awareness of the study to course convenors within their Faculties, as well as encouraging staff to participate in the research. Because of the relatively low response rate in the first two years of data collection, the research team applied for and were successful in obtaining a competitive learning and teaching grant to extend the data collection period for a further 12 months. This confirmed the institution's support for the research, as well as its commitment to CWIE (the initial two years of the research was funded out of the PACE operating budget).

## CONCLUSIONS

To our knowledge this is the only study which has attempted to measure workload systematically across different types of CWIE delivery modes. Future research could extend our findings either through comparative studies between institutions, or more deeply explore some of the issues identified in this paper. Alternative methods of collecting workload data were considered during the design of the study, however the research team decided that none of the alternatives (such as randomly choosing a few weeks in which to collect data from participants) would capture the same level of comprehensive data that this study yielded. CWIE workload fluctuates greatly from week to week over the duration of a teaching session, and it was of interest to the research team which periods were busiest for CWIE course convenors. Hence, random time sampling methods such as mobile phone apps which ask participants to record their activities in the past hour, were not appropriate for this type of survey. While weekly surveys can be time consuming for participants to complete, as well as research teams to administer, we feel that for such a study it was the most effective method.

In conclusion, our study has been welcomed by University staff, particularly its value in recognizing hidden workload associated with CWIE delivery and providing evidence to inform workload negotiations and models. The survey tool has received positive feedback, although a number of challenges were experienced collecting workload data via weekly online surveys, e.g., in the recruitment of participants, ensuring data quality, and resourcing. We hope the reflections reported here will benefit other researchers and institutions seeking to measure workload associated with CWIE courses, as well as contributing valuable knowledge to the wider literature on measuring staff workload in universities. Findings of this research will be used to inform funding and workload models at the University concerned, as well as helping identify the “most efficient, effective and sustainable modes of delivery for WIL courses” (Clark et al., 2016, p. 10). Some CWIE models and delivery modes are more time consuming and resource intensive to deliver than others, however the quality of learning outcomes for students and benefits to partners also need to be considered – high quality CWIE may justify the need for additional resources.

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# Measuring Jobs in Work-Integrated Learning

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## ABSTRACT

Work-Integrated Learning (WIL) researchers have often been disappointed that the effect of work experience in cooperative education, sandwich, and internship programs seems to be so limited. It has been argued that WIL researchers need to pay more attention to the jobs held by students if we are to understand these conflicting, weak, or even negative findings. But what aspects of WIL jobs are most likely to affect future academic and job performance? This article examines the literature from Industrial/Organizational Psychology on jobs, looking at it from the point of view of the employer, the institution, and the student, and suggests measures most likely to affect subsequent behavior.

*Keywords: Work experience, KSAOs, job analysis, cooperative education*

## INTRODUCTION

In an address at the first WACE Research Symposium, Rowe (2014) examined the literature on the effects of work experience in undergraduate education and concluded that these effects were modest at best. A survey of long-time work-integrated learning (WIL) researchers supported this conclusion and noted a number of areas where the results had been disappointing. Researchers have tended to treat the work experience gained in WIL programs as either present or absent, without considering characteristics of the work experience (such as amount of time, relevance to the program, etc) and how they might influence any effects. Rowe argued that researchers instead needed to turn their attention to the actual jobs held by WIL students and the various job characteristics that may affect the work experience of students. But how do we measure these jobs, and what aspects of jobs might be critical? And most importantly, how do we use this information and compare across all the very different jobs held by students? The purpose of this paper is to show how it may be possible to answer these questions by drawing upon studies in industrial/organizational psychology.

A first step in looking for measures of jobs that might be of relevance to WIL is to consider the various expectations of our three stakeholders – employers, colleges and universities, and students. First, employers report that their primary interest in participating in cooperative or work-integrated education is in attracting and recruiting future employees. Clearly, what is important to them in a co-op student are the same attributes that are used in selecting permanent employees – knowledge, skills, abilities, and other attributes (attitudes, personality, etc.) of the individual, often referred to in the industrial/organizational literature (e.g., Catano, Wiesner, Hackett, & Methot, 2005) as KSAOs. Employers, therefore, are looking for evidence that the prospective employee has acquired the KSAOs that are required for the job in question. Students who have spent work terms in settings where they could acquire the KSAOs are the ones most likely to be hired. Not surprisingly, then, students who have worked for that employer and performed well have the best chance of being offered the job, as the work term has given the employer the opportunity to assess these characteristics in a real life setting. Indeed, over half of the WIL employers who participated in a large-scale survey hired a WIL graduate for a permanent position (Sattler & Peters, 2012). The best measure of the quality of the work experience from the perspective of the employer is, therefore, the similarity of the KSAOs of the candidate and the KSAOs required by the job, and more indirectly, by the percentage of students employed permanently by organizations participating in WIL.

The second stakeholder to consider is the institution, whose interests are both academic and financial. While faculty members generally see the benefits of WIL, especially for students, they have concerns over finding enough high-quality placements (Peters, 2012). The academic expectations from the point of view of faculty members is either that on-the-job experience can replace some classroom programs (e.g., surveying) or that

students participating in WIL programs will show enhanced academic performance and improved employment opportunities upon graduation. The aspect of jobs of importance here is the extent to which the tasks on the job match the curriculum of the program, and thus similar to the employers, faculty are (or should be) interested in KSAOs. The financial expectations of the administration, apart from the costs of running the program, are around issues of recruiting and retaining students, and completion rates. The relevant measures are therefore ones related to the extent to which students' expectations are met and thus are similar to the ones that are described in the next section on students.

What are the expectations of the benefits of WIL held by students? By far the strongest motivation for entering co-op or other WIL programs is to gain experience that will enhance their chances of getting a good job upon graduation. Moreover, upon graduation those students in WIL programs reported that they were more employable and had gained practical experience (e.g., Sattler & Peters, 2013). Those benefits should be greater if they were employed in WIL jobs that provided them with the opportunity to acquire the appropriate KSAOs for the jobs and careers they desired. We also know (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005) that applicants are attracted to jobs with work environments and organizational characteristics that will provide a good fit and high levels of job satisfaction. Whether that means that they should have been very satisfied with their work terms or have noted high levels of satisfaction in workers in that occupation or organization is not clear.

Note that developing KSAOs is an important aspect of the expectations of all three stakeholders. The classic way to measure jobs is by "job analysis", a procedure well known in human resources and by most jobholders. Job analysis is "a systematic process for gathering, documenting, and analyzing data about the work required for a job" (p. 117, Catano et al., 2005), and provides both a description of the job and the basis for inferring KSAOs. There are a number of different job analytic procedures, each with their own advantages and disadvantages. Note, however, that job analysis almost always provides a unique description of each job as well as an associated set of KSAOs, and thus is almost useless for WIL researchers looking for common job characteristics that might be important in predicting future behavior. The question, therefore, is how can measures of KSAOs be used by WIL researchers to measure work experience.

Jobs, however, are only one aspect of work and work experience. A number of writers (e.g., Jacobs & Gerras, 1992; Lance, Hedge, & Alley, 1989; Rowe, 1988) have remarked upon the variety of definitions and measures of work experience that have been used in research on the effects of work. The most popular of these measures is time on a job. Certainly the assumption in WIL is that some amount of time (six work terms, one year, part-time through the academic year, etc) provides the necessary experience to affect future behavior. A number of meta-analytic studies, however, have demonstrated that measures of time on the job have limited effects on such criterion variables as job performance (e.g., Hunter & Hunter, 1984). It is important to point out that nearly all of these studies examine time on the job with performance on that same job, not as a predictor of future performance on a different job. This point is important in the development of measures of co-op work experience as we generally are looking for work experience to predict future job performance.

Two articles, published nearly two decades ago, provide a starting point for developing other measures. Quinones, Ford, and Teachout (1995) proposed a multidimensional view of work experience, with two dimensions – measurement mode and level of specificity. They suggested three levels of measurement mode: time, amount and type (the last a more qualitative measure such as difficulty or complexity). Three levels of specificity were also proposed: task, job, and organization. The two dimensions then can be arranged as a 3 X 3 categorization scheme. Each of the nine cells describes a different measure of work experience, such as number of organizations, job complexity, or time on a task.

The second article, by Tesluk and Jacobs (1998) expands the multidimensional concept of work experience from the 3 X 3 matrix proposed by Quinones et al. (1995) to include work group and occupation to the dimension of level of specificity, and density and timing to the dimension of measurement mode, making a 5 X 5 matrix. Not only do each of these measures play a role in experience but they may also interact, as, for example, the impact of



the work group may be more important for the new employee than ones who have been in the organization for a longer time. In addition they state that individual difference factors such as ability and contextual factors such as hiring policies that may influence work experience, must be considered. While Tesluk and Jacobs make a major contribution to our knowledge of the construct of work experience, the complexity of their multidimensional, dynamic, and multilevel model makes it difficult for WIL researchers to choose appropriate measures of jobs and work experience.

The purpose of this paper and the preliminary research reported here is to assist other researchers in how to measure jobs and work experience, not to develop a new test. To that end what is described represents the process by which researchers might draw upon industrial/organizational psychology in their research.

## TEST MATERIALS

The first step is to specify the stakeholder whose evaluations of jobs are pertinent to the issue at hand. Because of the importance of students to the success of co-op education their evaluations were chosen as the example here, though some discussion of institutions and employers will be considered later. The procedure that was followed in item development was to prepare some items based on previous research and use them as a basis for discussion with current co-op students at a local institution. To date four senior students have participated in these discussions.

Given that traditional job analysis measures are not suitable, the matrices proposed by Quinones et al. (1995) and Tesluk and Jacobs (1998) were used to generate items but an effort was made to incorporate KSAOs into these items. Which of the cells might be most important for co-op or WIL students? The aspects chosen for measures here were all those suggested by Quinones et al. plus two from the Tesluk and Jacobs model. In addition, interaction with the work group, and career rather than occupation, were included in the level of specificity dimension, and timing from the measurement mode, were chosen from the Tesluk and Jacobs paper. Because of the importance of supervision for WIL students on a work term it was added to the interactions with work group level. Potentially, therefore items could be written for 20 cells (see Table 1). Recall that typically employers use time in the job (cell #6) as the preferred measure of work experience and therefore must be included, but as was noted earlier this measure is not a strong predictor of performance or future success. A more relevant item might be the number of times a task was performed (cell #1) the measure most closely related to performance in the Quinones et al study. Items were written for some of the other cells in the various versions used with the participants. Finally, a measure of job satisfaction was included.

Some problems were encountered in writing items for some of the cells: unlike permanent employees WIL students spend a short time (4 months in this case) in any one job but may hold a number of different jobs with different organizations over their time in university. Thus some questions pertaining to all of their work experience were asked, other items were limited to one organization, job, or even task. Participants viewed and discussed only a subset of items, as various wordings and scales were tried out.

## RESULTS AND DISCUSSIONS

The discussions with the four participants provided a rich source of information for the development of future items. First, it became clear that items incorporating KSAOs or some variant of them resonated most strongly with the students. More effort will have to be put into appropriate items of this sort. Second, the participants had difficulty with the meaning of "task" and tended to think in terms of their jobs (e.g., research), rather than the tasks that constituted the job. Even full time employees are sometimes surprised to learn what tasks are in their own job descriptions, so perhaps this issue should have been anticipated. Future items will need to provide a definition of task.

It is also tempting to write "what" questions: What tasks did you perform? What type of organization did you work for? etc. In some cases (the former question) this yields such a variety of answers that comparison between work experiences is impossible, though the latter question may be more useful as it tends to be more limited in

the range of answers. Other issues they had with these initial surveys were the scales used, the clarity of the questions, and the use of a paper-and-pencil survey rather than a web-based version.

#### *Preliminary List of Items*

Table 2 provides a list of items organized by cells based on the discussions to date. Some cells have items that have not yet been presented to co-op students, most notably some of the items in the timing and career cells. They were added as the participants mentioned experiences that seemed to fall into these cells. While this list is regarded as preliminary and is likely to be altered as more discussions take place, it may provide some guidance for researchers looking for a way to measure work experience. In practice these items would need to be modified. For example, in the discussions to date only one task and one job (the “best” and “worst” jobs, and the first or last work term position) have been evaluated, and other variables have been added. More important, most researchers would not want to use all of the items, and would select ones that seem more relevant to the outcomes they are investigating.

#### *Other Stakeholders*

Rather different items would be required for research that dealt with employers or faculty or administrators in the educational institution. As mentioned earlier employers are looking for students with the appropriate KSAOs to perform the job assigned on the work term but also have the potential for permanent employment. The sort of items that should be developed then would be ones that asked employers to specify the level of knowledge, sets of skills, necessary abilities, and other, perhaps “soft” skills, necessary to perform the tasks in the job. Much of this material would be found in the job descriptions that are used and the requirements of the job, but they would be evaluated in a way that made comparisons between jobs and employers possible. This array of KSAOs should be matched against the KSAOs typically found in students in the program at the level from which the employer is selecting students. Given the desire of students to have work experience related to their career goals (and the desire of employers to attract future employees), the KSAOs should also be connected to the job requirements of future employment. Thus one might have an item such as “What level of knowledge is required for this job?” and “How is this knowledge related to knowledge required for future employment?”.

The other stakeholders are the faculty members and administrators of the institution. Faculty members are looking for academic benefits, so measures of jobs should consider the relation between activities at work and their relation to the academic curriculum. Two such items might be “How much time did students spend working on tasks that were related to the academic program?” or “What skills did students bring back to the classroom that you did not have to teach (or that improved their academic performance?)”. Administrators might be asked “How long a work period is necessary to have an effect on retention until graduation?” or “What types of jobs attract new students to WIL?”.

## CONCLUSION

This paper has attempted to show how WIL researchers could make use of ideas from industrial and organizational psychology in a more rigorous examination of the work experience of students in WIL programs. An emphasis on the knowledge, skills, abilities, and other attributes (often “soft skills”) of the jobs held by students and how they match the career goals of the students, the curriculum followed in their program, and the needs of employers has been used here to propose a number of items for researchers to consider. Items like the ones proposed are not unusual in WIL research (see, for example, DeClou, Peters, and Sattler, 2013) but they have not been used to determine whether the effects of work experience are related to various characteristics of the jobs. Might Van Gyn, Cutt, Loken, and Ricks (1997) have found more benefits in academic performance if the extent to which the jobs were relevant to the academic curriculum been examined? Or would we have a better understanding of why Brown (1976) found the effects of co-op experience to disappear after a few years, had the similarity of work term jobs and post graduate employment been examined?

TABLE 1: Matrix of two dimensions of work experience measures

		<i>Measurement Mode</i>			
		Amount	Time	Timing	Type
<i>Level Of Specificity</i>	Task	1	2	3	4
	Job	5	6	7	8
	Work Group and Supervisor	9	10	11	12
	Organization	13	14	15	16
	Career	17	18	19	20

TABLE 2: Preliminary list of items<sup>4</sup>

Task	1. How many times each week was each task performed? 2. How much time (in minutes) was spent on each task? 3. How appropriate were the tasks to your knowledge or skill level? 4. How difficult were the tasks?
Job	5. How many jobs have you held? 6. How long (in months) did you work on each job? 7. Did they match your knowledge, skills, and abilities? 8. How complex were the jobs?
Interactions with work group and supervisor	9a. How frequently did you interact with your work group? 9b. How frequently did you meet with your supervisor? 10a. How much time did you spend with your work group? 10b. How much time did you spend with your supervisor?
Interactions with work group and supervisor	11a. Did you have the appropriate social skills to fit in to your work group? 11b. Did you have the appropriate social skills to use in interactions with your supervisor? 12a. What sort of interactions (e.g., positive or negative) did you have with your work group? 12b. What sort of interactions (e.g., positive or negative) did you have with your supervisor?
Organization	13. How many organizations have you worked for? 14. How long did you work for each of them? 15. Did you fit in to each of them? 16. What type of organizations were they?
Career or occupation	17. How many tasks were related to your future career? 18. What percentage of time was spent working on career relevant tasks 19. Was the work related to your career goals? 20. What type of career would you like to have?

<sup>4</sup> Numbers refer to cells in Figure 1.

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# Exploring Student Approaches to Graduate Employability: An Institution-Wide Perspective on Student Identity

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## ABSTRACT

Universities are adopting institution-wide projects designed to enhance opportunities for student work placements and work-related learning across all subject disciplines, as inclusion and graduate employability are increasingly expressed as university core values. However, there are large variations between programs and disciplines in uptake, with limited evidence explaining why this might be the case. Furthermore, disparate routes to higher education, for example through direct entry to advanced stages of programs, provide further variation of experience. This study uses identity theory (Stryker, 1980) to explore student perceptions of placement and work-related learning. Students involved in an institution-wide graduate employability project, designed to increase the availability of placements and work-related courses on degree programs, were invited to express their attitudes to work-related learning through in-class surveys. The survey was distributed to 103 students across three different programs. Students drew on resources for identity work including role models and imaginings of themselves in a working environment. However, while they were found to have used developmental networks to support decisions about university courses, many had limited access to networks that could support their career decisions. Finally, the study highlighted that many students lacked awareness of the new courses as opportunities for work-related learning.

*Keywords: Employability, work-related learning, student identity, professional identity, work placement, transitions*

## INTRODUCTION

Students have understandably high expectation of universities equipping them with the necessary skills, experiences and attributes to ease their transition to graduation and beyond into a graduate job (Moore, Sanders, & Higham, 2013). Recent re-formulations of human capital theory suggest an unproblematic alignment between education, work and earning, with higher education being seen by successive governments as a tool for upward social mobility (Marginson, 2015). Indeed, in the UK, divergent student funding models combined with challenging times for the economy have “placed graduate employability at the centre of the Higher Education agenda” (Pegg, Waldock, Hendy-Isaac, & Lawton, 2012, p. 4). Of course the precise definition and measurement of employability is hard to pin down. Employment rates are routinely published but data is generally reported six months from graduation, whereas many students take longer to secure their preferred graduate job (Elias & Purcell, 2004). Furthermore, the prestige of the university, together with ethnicity, mobility, and geographical location all affect employment outcomes (for example, Harvey, 2001). These factors are out with the university curriculum developer’s sphere of influence. High profile university interventions, such as the Career Edge model (Dacre Pool & Sewell, 2007), have been used, for example, to try to help students identify areas for further self-development (Dacre Pool, Qualter, & Sewell, 2014).

With public money from the Scottish Funding Council, a three year £1.6m Graduate Employability Project ran in a UK university between 2012 and 2015. The overarching aim of the project was to increase graduate employment rates. The project resulted in both faculty curriculum development and centralized support

activities. Curricula were re-visited to look for opportunities to embed employability into existing courses and to create new courses with a view to sustaining the outcomes. While employment rates overall improved (from 90% in 2012-2013 to 93% in 2014-2015), what was less clear was whether students felt differently about themselves, felt employable. This study was designed to consider the students' self-concept, or identity, in relation to the new courses, and in particular, to look at the social processes which support agency in students' self-identification as skilled practitioners.

#### IDENTITY CONSIDERED

Arising from symbolic interactionism, identity theory provides an overarching view of our self-concept as we enact our various life roles (Stryker & Burke, 2000). In our social interactions we are challenged to resolve identity conflict through notions of identity commitment and salience (Serpe & Stryker, 2011). For example, in an educational context, students have been found to balance a student identity with an emerging professional identity as their skills develop towards graduation (Daicoff, 2014; Smith, Sobolewska, & Smith, 2014; Wong & Trollope-Kumar, 2014).

Identity is said to be *constructed*; however the construction of an identity is not considered to be solely an act of agency and self-determination. Alvesson (2010) claims that identity construction, as considered at the extremes, is either entirely due to the individual constructing an identity through "effort and capacity" or the "outcome of social forms and discursive forces" (p.211). In an educational context, and through institution-wide initiatives, university interventions (including, for example, discourse of graduate employability and pre-placement preparation events) can be surfaced to act as a possible resource for identity construction.

#### IDENTITY WORK AND ADAPTATION

Identity work, leading to identity consolidation or adaptation, can be defined to be the construction of identity through interaction with others, in particular "forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence or distinctiveness" (Sveningsson & Alvesson, 2003, p.1165). According to Ibarra and Petriglieri, the "primary function of identity work is compliance with role requirements and their display rules", where display rules, in their study, are the external projections of professional identity (2010, p.14). Ibarra and Petriglieri observed identity work as employees sought to "convey images that conform to prototypic characteristics of those roles" (ibid, p.14). Each definition of identity work is reliant on the nature of relevant social interactions and the way the environment fosters productive interactions and prototypes; each of which can be influenced by institutional culture and infrastructure.

Student transitions have been explored widely, with a view to supporting individuals through times of personal change as they move from school or college to university (for example, Beach, 1999; Gale & Parker, 2014). Beach's (1999) mediational transitions offer an interesting possibility for framing some types of work-related learning, particularly where the educational activity occupies a middle ground between where the students are now and where they are going developmentally. Gale and Parker (2014, p.735) suggested a typology of three types of transition; of which one is a perspective on "transition as becoming" which is supportive of the idea that universities facilitate the emergence of diverse identities. Work-based learning can involve a temporary transition from university into the workplace, with the potential for consequent disrupted identities which have, in turn, been found to lead to identity work (Beech & Johnston, 2005). Identity theory has been used to explore transition, for example transitions from student to graduate (Smith et al., 2014), transitions during a professional life (Slay & Smith, 2011), and the transition from being employed to retiring (Birkett, 2011). These studies provide insights into identity construction and adaptation, not restricted to a current role, but as part of an overall life narrative.

Aside from gaining skills and capabilities, social processes have been identified as important in identity construction and adaptation; social processes such as the use of role models, developmental networks and experimenting with possible selves. In terms of **role models**, various studies have found that they act as a resource for identity adaptation through the observation of prototypical behaviors (for example, Higgins & Kram,

2001; Singh Vinnicombe, & James, 2006; Wright & Wright, 1987). Dobrow, Chandler, Murphy, and Kram (2012) define **developmental networks** as those people and groups of people who take an active interest in an individual's career. Interaction with developmental networks has also been found to impact on identity adaptation. Wright and Wright (1987) found that acceptance and confirmation of abilities, as initiated by a mentor, led to an improved self-image, suggesting that this was due to self-verification (Swann, 1983). Sweitzer (2009) explored the developmental networks of doctoral students to find that both networks and discourse led to a change of self-image and consequent success or otherwise. Finally, studies such as Markus and Nurius (1986) have focused on the use of "**possible selves**". Markus and Nurius introduce the term to describe *imaginings* of whom one might become: in other words, a new self-identification. In a study of students transitioning to their first teaching job, Ronfeldt and Grossman (2008) found that students on placement negotiated how they saw themselves in comparison with the image of the professional projected through their university programs. Ibarra (1995) conducted a study into professional identity to find that participants drew on role models to enact a *provisional self*, followed by reflection and adaptation, until identity was consolidated in new roles. These three social processes (role-models, developmental networks and possible selves) are of interest in exploring student transitions from the classroom to the workplace.

Beech, MacIntosh, and McInnes (2008) considered identity work within situations of organizational change, developing a conceptual model which recognizes both opportunity and risk in undertaking identity work. Here, opportunity and risk refer to an individual's motivation. They are two sides of the same coin: different perspectives, rather than separate factors. Opportunity describes the perceived benefits of achieving positive professional identity outcomes, for example, a chance to gain status. Risk, for a student, could be the perceived need to self-identify as a professional, rather than a student, if the student has doubts about performing as a professional. Beech et al.'s model combines motivation with resources for identity work. Resources include skills, capabilities and status that can be used to establish or maintain an identity position. In the context of graduate employability a lack of resources for identity work could constitute a barrier to engagement with work-based activity.

Drawing together the social processes of identity adaptation with the risk/opportunity/resource conceptual model leads to the research questions posed by this study:

- In the context of an institutional imperative to increase work-based and work-related activity, with a view to improving graduate employability, what is the nature of identity work observed in students?
- Do the new work-related courses lead to recognizable student identity adaptation social processes?

Bearing in mind the widely varying nature of curriculum development in the three different programs in the sample, combined with the different student learner journeys, the research questions are designed to explore student approaches to and experiences of different models of work-based and work-integrated learning.

## METHOD

An initial survey was developed with questions designed to elicit self-identification, mixing open responses with prompts to provide explanation. The survey questions attempted to explore self-identification and resources for identity work for students on programs where courses had been designed to enhance graduate employment outcomes. Questions were designed to uncover their attitudes to the new Graduate Employability Project courses, including the perceived advantages or drawbacks in undertaking work-related learning and work placements. The questions were designed to elicit perceptions of work experience and resources for identity work. In particular, specific questions were designed to explore the impact of role models, developmental networks, and whether students could imagine a possible working self. Three programs from two different schools were identified for this initial study: Film and Television (n=14); Graphic Design (n=61) and Vet Nursing (n=28). In all, 103 participants responded to the survey which was distributed in-class. In terms of demographics 84% were aged between 17 and 22 years old; 76% were female and 81% were white UK.

## RESULTS

To consider whether the overall goal of graduate employment played a factor in students' motivations for program choice, participants were asked "What was the motivation behind your program choice?" and invited to select any number of options from a list: interest in the subject was selected by 30% of respondents; following a specific career path was selected by 24%; enjoyment of the subject by 15%; and opportunity for personal development by 13%.

Students were asked about their work placement and work-related learning intentions. This was clearly important to students throughout their program: 91% of respondents either strongly agreed or agreed that "From the time I first joined my course I knew that I wanted to gain relevant work experience"; while 94% of students agreed that, as their studies progressed, they came to realize that gaining relevant work experience would be useful.

In terms of developmental networks, and to explore how students reached decisions about participating in work-related learning opportunities, they were asked who gave them encouragement. Family and friends were most influential, followed by lecturers, other students on the course, then placement and careers staff. The responses are provided in Table 1. Students were able to select any options that applied. Of the "others" students' responses included: people in the industry, students' partners, and tutors.

TABLE 1: Sources of encouragement to gain relevant work experience

	Total agree	Neither agree nor disagree	Total Disagree
My friends and family members	77%	17%	5%
My lecturers	74%	18%	7%
Other students on my course	72%	19%	7%
Placement and careers staff	51%	34%	7%
Others – please let us know who:	22%	24%	

To determine agency, participants were asked if they had attended any placement or careers talks. Only 3% of respondents had not attended *any* events. Participants were asked how these had helped. Five students provided responses of more than one word. The following, which highlights gaps in knowledge, is representative:

They have taught me what people in the industry are looking for in interns but I wish there had been more mandatory meetings to help me further prepare and find placements. I don't know if I am meant to have one by now or not.

## IDENTITY WORK AND ADAPTATION

As resources for identity work, the identity adaptation themes of role models, developmental networks, and possible selves were explored through the survey. Respondents were asked if they had any role models in the industry they wanted to work in: 64% said "Yes", while 36% said "No". Those that had identified role models were asked if they had met them or knew them to speak to and 21% said "Yes"; 79% said "No".

To explore students' developmental networks, the survey asked students who they tended to approach for advice about careers, as an open question. Responses are summarized below in Table 2, by counting the number of times each category of advisors was mentioned. The table also shows the breakdown between those who



answered positively to the question of whether they had applied or secured a place on a work-related learning or work placement course (“Yes to placement”) and those that had not (“No to placement”).

TABLE 2: Talking over decisions affecting future career planning

Mentions	All	Yes to placement (n=42)	No to placement (n=61)
Family or family member (not partner)	64	30	34
Friends/peers/other students (includes partners/spouses)	31	14	17
Lecturers/tutors/careers staff	26	11	15
Industry	9	2	7
No one/myself	7	5	2

Students were then asked if they would know who to approach for additional information or advice on gaining relevant work experience: 32% said their program team and 23% said the careers service. Other responses included the placement office (9%) and the student services hub (9%).

To explore whether respondents could imagine a possible working self, they were asked if they could easily imagine themselves in a work environment: 86% said “Yes”, 13% said “No”. They were then asked “Where do you see yourself in 10 years’ time?” 66% replied with a specific career in the area of their degree topic. One student clearly envisioned a future working self, responding to this question with this image: “In an office with big windows editing films”; 25% replied with a more general indication of working (for example: “working”; “a good job”), and 8% replied that they had no idea. Students were then asked if they had applied for a work-related project and 40% answered positively (the “Yes to placement” group above).

## DISCUSSION

Following the curriculum development described above, work-related learning was a mandatory component of these students’ program of study. However, respondents did not always recognize the work-related elements within the newly developed courses. Of those who had applied for work-related learning, 80% recognized that it was part of their program; of those who had not applied only 61% recognized it as part of their program. Over half the total respondents (61) were 3<sup>rd</sup> year graphic design students. For these students, the semester following the survey offered three graduate employability activities: study abroad, work placement or a studio-based live project. There was considerable confusion about the purpose and nature of these activities. Via a free text response 26% of the design students said that a “work-related or work-based module” was not offered: for example answering “Not been offered” or “Not given the opportunity”; and 13% did not know whether this was part of their course or not, for example answering “I don’t know if there’s any”. However, some had accurately understood the course structure, answering: “We are doing placements next semester”.

Role models have been found elsewhere to provide a valuable resource for identity work, including as a way of modelling new behaviors (Ibarra, 1995). The majority of the respondents in this study agreed that they had role models in the industry in which they wanted to work; however, of these, only 21% knew their role model to speak to. Gibson (2003) found that “close” role models are most widely used amongst early career employees while in later stages role models were used to affirm individuals’ self-concept and more likely to be “distant”. So, for our undergraduate students, near role models would be helpful at this stage in their career but, for most respondents, the potential of role models as a resource for identity work was not being realized.

The respondents’ developmental networks were found to be focused in the main on family members. Dobrow & Higgins (2005) found that dense networks, where individuals in the network were themselves interconnected, impacted negatively on clarity of identity, suggesting that this was due to a lack of valuable resources for

experimenting with possible selves. Furthermore, Archer (2007) found reliance on close family networks was less likely to lead to self-development and social mobility. In this study, most responses to questions about who students talk to about study and career options, and who they get encouragement from, mention family, above university staff, friends, and people in their industry, respectively. More significantly, for those who had applied for work-related learning or a work placement 31% had access to a wider network than just family and friends; while only 24% of those that had not applied had wider networks (and 10% of those mentioned a single person – in most cases their mothers). The university draws on alumni to speak to students about their work and it also runs an optional mentoring program for all direct entry students. These types of activities did not appear to impact significantly on this group of students.

Students who replied that they could easily see themselves in a working environment in the main cited that they had previous work experience to draw on, both within and outside university. The extent to which students, including undergraduates, come to university with some measure of professional identity should not be underestimated. Other responses included: “I feel like I am growing out of education”; “I am passionate about my field” and “I work hard and believe I can find a relevant job.” For those that couldn’t picture themselves in a working environment, reasons included “I don’t feel very confident”; “I don’t know what I want to do”; “I don’t feel qualified enough” and “Not been taught enough practical knowledge.”

Returning to Beech et al.’s (2008) conceptual model of identity work, students were largely found to have the motivation and opportunity to undertake identity work as evidenced by their strongly positive response to the question of work experience being useful to them. In practice, the participants in this study were observed to be acting as agents through engagement with careers services and seeking advice. However, some of the rich resources for identity work were not readily accessible. While most of the students had role models in the industry and could envisage themselves in a work environment, their developmental networks were found to be overly reliant on family and friends, rather than more diverse networks which would be richer resources for identity work. The new employability courses had been designed, through increasing the opportunity for identity work, to support students’ capacity for identity work, however, in some cases, a lack of resources was observed.

Students were using role models and possible selves as resources for identity work, though their developmental networks could usefully be expanded to provide more support for identity transitions. Indeed, imagining a professional self was easy for 86% of the group. Looking more closely at the responses from the group of students who said that they had applied for a work-related opportunity, 71% had been influenced in their overall program choice by having such an opportunity. For those that had not applied, only 50% had been influenced. As 94% had come to realize that work experience would be useful to them, the lack of pre-application influence would appear to indicate lack of information or understanding about this element of the new employability courses at the pre-application stage.

Given an employability focus, the implication of this study is that universities should structure curricula and the learning experience so that students both recognize and engage with it, irrespective of their individual subjectivities. Early clarification of employability module mapping with clear messages designed to signpost advice and mentoring provided by the university could make the opportunities available more closely related to student aspirations and, more effectively, lay the foundation for identity adaptation to a skilled practitioner.

#### STUDY LIMITATIONS AND FUTURE WORK

The survey elicited useful information about students’ awareness and perceptions of work-related learning and resources for identity work. However, the responses need to be explored more fully. The study is also limited by the lack of diversity in the participant group. Future work to remedy these limitations is underway. This includes follow up interviews and extending the survey to new student groups across the university. In wider terms, a cross-institution study would be of interest as a means of comparing the impact of differing approaches on student self-identification.

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# Using Internship Placements to Road Test Threshold Learning Outcomes for Environment and Sustainability

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## ABSTRACT

In 2015 the threshold learning outcomes (TLOs) for Australian bachelor degree graduates in the discipline of Environment and Sustainability were released. The TLOs encompass four domains (Transdisciplinary Knowledge, Systemic Understanding, Skills for Environment and Sustainability and Ethical Practice) with 15 specific TLOs. In the present study the 15 Environment and Sustainability TLOs were road tested in the workplace via environmental science students' internship placement. Three stakeholder groups were surveyed (students, the students' host-supervisors and teaching staff). The groups were asked to provide the level of importance they placed on each TLO and, subsequently, rate student performance. Students rated their own performance. Host-supervisors rated the performance of the student they supervised and teaching staff rated a typical student upon graduation. Importance values of TLOs were similar for all stakeholders, however, teaching staff placed greater importance research skills. Teaching staff and host-supervisors rated student performance lower than students rated their own performance. In the domain Systematic Understanding students rated themselves between Adequate and Proficient while teaching staff and host-supervisors rated performance between Basic and Adequate. Teaching staff and host-supervisors also rated students' ability to reflect on practice as Adequate while students rated themselves Proficient. The school will use the results of the present study and a study that evaluated the importance and performance of graduate attributes and course learning outcomes to design a new major in waste management. At the time of preparing this abstract only 4 host-supervisors had completed the survey.

*Keywords: WIL, curriculum, graduate attributes, threshold learning outcomes.*

## INTRODUCTION

In 2010, the Australian Teaching and Learning Council, Learning and Teaching Academic Standards project supported discipline communities to articulate threshold standards, i.e., the minimum learning outcomes a graduate must achieve including; discipline-specific knowledge, discipline-specific skills including generic skills as applied in the discipline and discipline-specific capabilities (Australian Learning and Teaching Council, 2010). To date, threshold learning outcome statements were completed in 28 disciplines (Table 1). At this stage, the future of the Australian threshold learning outcome statements is unclear in relation to the Tertiary Education Quality and Standards Agency. Similar initiatives have been underway abroad. Harris (2009) summarized initiatives refining expectations of knowledge outcomes within subjects and disciplines, including the Tuning Process (Europe) which identified threshold-level learning outcomes for a wide range of subjects, and the Subject Benchmark Statements (UK) wherein subject-specific statements of learning outcomes are part of the national quality assurance framework (Harris, 2009).

TABLE 1: Threshold learning outcome (TLOs) for disciplines in Australia (Freeman & Ewan, 2014; Office of Learning and Teaching, 2015).

Discipline (Year of release)	Discipline (Year of release)	Discipline (Year of release)	Discipline (Year of release)
Law (2010)	Creative & Performing Arts (2010)	Building (2011)	Journalism, Media & Communications (2013)
Geography (2010)	Public health nutrition (2010)	Pharmacy (2011)	Mathematics (2013)
History (2010)	Science (2011)	Education (2011)	Biomedical Science (2013)
Creative & Performing Arts (2010)	Health, medicine and veterinary science (2011)	Marketing (2012)	Chemistry (2013)
Accounting (2010)	Architecture, Building & Construction, Education (2011)	Sociology (2012)	Agriculture (2014)
Engineering and Information and Computer Technology (2010)		Psychological Literacy and Global Citizenship (2012)	Finance (2014)
		Physics (2012)	Environment and Sustainability (2015)
		Biology (2013)	
		Economics (2013)	Tourism, Hospitality and Events (2015)

The TLOs for Environment and Sustainability have recently been published (Phelan et al., 2015). The TLOs were developed in consultation with more than 250 individuals; industry representatives, academics in the discipline, students and people with Indigenous interests. The TLOs were commissioned and endorsed by the Australian Council of Environmental Deans and Directors (Phelan et al., 2015). The Environment and Sustainability TLOs are presented in Table 2. Graduates are meant to meet, or exceed, all TLOs on graduation (Phelan et al., 2015).

TABLE 2: Threshold learning outcomes for environment sustainability (Phelan et al., 2015).

Domain	Threshold Learning Outcome	Abbreviated TLO
Transdisciplinary knowledge	1. Demonstrate a broad and coherent knowledge of:	
	1.1. environments at various scales, interdependencies between human societies and environments, and sustainability	1.1 Know: human and environment
	1.2. key environmental and sustainability challenges and their drivers	1.2 Know: key drivers
	1.3. holistic systems thinking and complexity.	1.3 Know: holistic
Systemic understanding	2. Demonstrate an understanding of diverse approaches to environment and sustainability, including:	
	2.1. disciplinary and transdisciplinary approaches to identifying and conceptualizing environmental and sustainability challenges	2.1 System: conceptualize
	2.2. different frameworks for knowing	2.2 System: frameworks
	2.3. their own and others' values, knowledge, ethical positions and interests	2.3 System: values
	2.4. the particular values, knowledge, ethical positions and interests of indigenous peoples globally.	2.4 System: indigenous

Skills for environment and sustainability	<p>3. Demonstrate well-developed cognitive, technical and communication skills through:</p> <p>3.1. addressing research questions by identifying, synthesizing and applying appropriate knowledge and evidence from diverse sources</p> <p>3.2. thinking critically and creatively in designing and evaluating sustainable alternatives and envisioning sustainable futures</p> <p>3.3. applying tools, methods, skills and theoretical knowledge for environment and sustainability practice</p> <p>3.4. working both independently and collaboratively</p> <p>3.5. communicating with diverse groups in various contexts using a range of written, oral and visual means</p> <p>3.6. engaging with Indigenous approaches to environmental and sustainability challenges.</p>	<p>3.1 Skills: research</p> <p>3.2 Skills: think critically</p> <p>3.3 Skills: apply tools</p> <p>3.4 Skills: teamwork</p> <p>3.5 Skills: communication</p> <p>3.6 Skills: indigenous</p>
Ethical practice	<p>4. Demonstrate an ethical professional, public and personal conduct by having capacity to:</p> <p>4.1. reflect on and direct their own learning and practice in the context of environment and sustainability</p> <p>4.2. participate constructively in decision-making consistent with principles of sustainable development.</p>	<p>4.1 Ethical: reflection</p> <p>4.2 Ethical: participate</p>

The aim of institutions is to map existing course learning outcomes against the discipline TLOs to ensure that graduates meet the minimum standard required. The present study is part of that process. Sothern Cross University has developed seven generic graduate attributes (GAs). For each GA the school teaching the environmental degree developed course learning outcomes (CLOs). There are 13 CLOs in total. In a study that was conducted in 2014 the importance and students' performance of GAs and CLOs were evaluated by students, host-supervisors and teaching staff.

The 2014 study showed that importance placed on GAs and CLOs were similar for the three stakeholder groups. Overall, host-supervisors were satisfied with student performance (mean of all CLOs 3.8 (approaching proficient) on a 5 point scale; n = 18). The lowest rating of performance by host-supervisors was 3.5 (between adequate and proficient) on a 5 point scale. Students also rated their performance quite high (mean of all CLOs 3.8 on a 5 point scale; n = 39). In contrast teaching staff rated performance of students quite low (mean of all CLOs 3.2 on a 5 point scale; n = 8). In addition, *post hoc* tests revealed that host-supervisors ratings of student performance was greater than teaching staff for 5 of the 13 CLOs while there were no significant differences between host-supervisors and students. Figure 1 illustrates the importance and performance of GAs and CLOs from the 2014 study.

The 2014 study enabled the comparison of GAs and CLOs that were developed "in house". At the time the survey was conducted the TLOs for environment and sustainability were in development. The current study provided the ability to evaluate the performance of students against nationally recognized threshold learning outcomes.

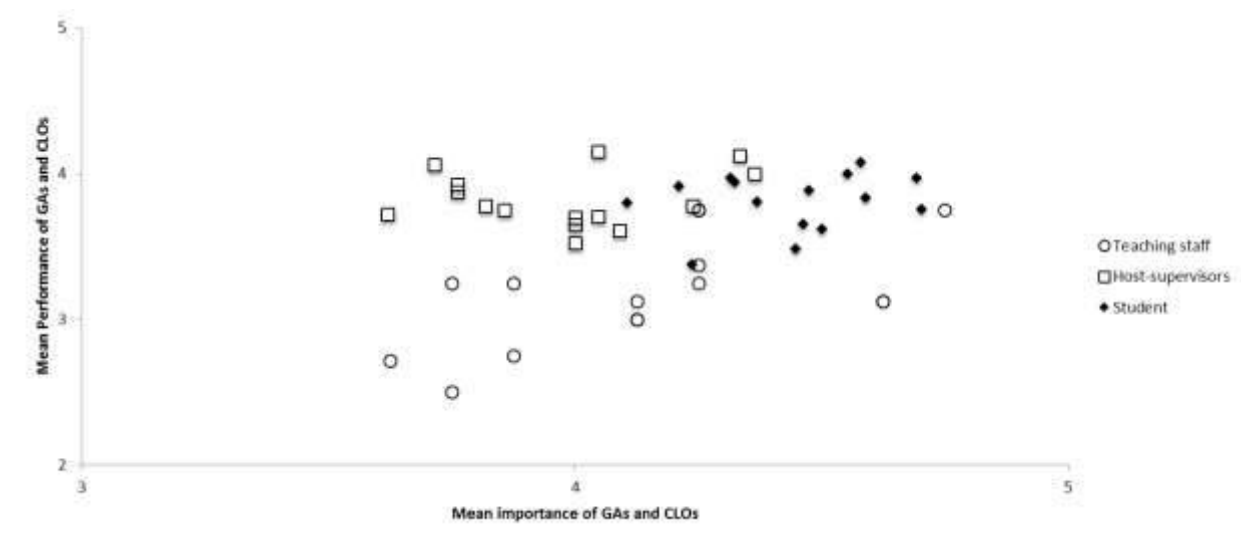


FIGURE 1: Mean importance and performance of seven graduate attributes and 13 course learning outcomes of three stakeholder groups (teaching staff n = 8; students n=38; host-supervisors n=18).

## METHODOLOGY

The study methodology was modelled on a study that used the Graduate Employability Indicator Survey developed by (Oliver, 2011) in health science and humanities disciplines (Ferns, 2012). The present study was comparative in nature and compared the importance and student performance of TLOs. The three major stakeholders in work-integrated learning were included (students, host-supervisors and teaching staff). The sample was drawn from the 2015 cohort of students enrolled in an internship unit, the supervising staff in the host organizations and teaching staff who are responsible for teaching core units of the degree. The internship unit requires the students to complete a placement for a minimum of 8 weeks (full-time). Students were not paid for their internship. The data were collected under approval from the Human Research Ethics Committee, Southern Cross University (ECN-13-192) using Qualtrics on-line survey. Students completed the survey on completion of their placement. Host-supervisors were invited to participate after they had completed their evaluation of the student. Teaching staff were invited to participate via email. Only quantitative data were collected in the present study.

The surveys were very similar for the three stakeholder groups, with minor modifications to the wording depending on the group. For example, Hosts (host-supervisors) were asked "How would you rate the student's performance?" while the student was asked "How did you rate your performance?" and teaching staff were asked "How would you rate a typical graduate's performance?" The rating system was based on the generic descriptions of stages of performance developed by the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education and the Department of Education, Employment and Workplace Relations (2013). The following options were available for the importance question (Meaning unclear, Not Applicable, 0 – Unimportant, 1, 2, 3, 4 and 5 - Great importance). The following options were available for skill level (Meaning unclear, Not Applicable, 0 –No skills, 1 - Low skill level, 2 - Basic skill level, 3-Adequate skills, 4- Proficient and 5 Professional skill level). The TLOs included in the questionnaire are presented in Table 2.

All statistical analysis was carried out using SPSS Version 22. One-way analysis of variance was used to compare means and Tukey Honest Significant Difference (HSD) was used as a *post hoc* test.

## RESULTS

The number of respondents (who agreed for their responses could be used in research) in each of the categories was as follows; Students - 11, Hosts –4, Teaching staff - 10. One of the TLOs (2.2 different frameworks of knowing) returned a significant number of "meaning unclear" responses (Students – 1, Teaching staff – 2 and Hosts – 2). The author asked for clarification of this TLO when draft Environment and Sustainability TLOs were



being reviewed. The “meaning unclear” responses were omitted from analysis. A comparison between groups of the level of importance placed on TLOs is illustrated in Figure 2 and reveals similarities in responses for the importance of most TLOs. There were no significant differences in importance of the TLOs. Although it is not significantly different ( $P=0.14$ ), Teaching staff (4.8) appear to place greater emphasis on research (TLO 3.1 Skills: research) than Students (4.0) and Hosts (4.1).

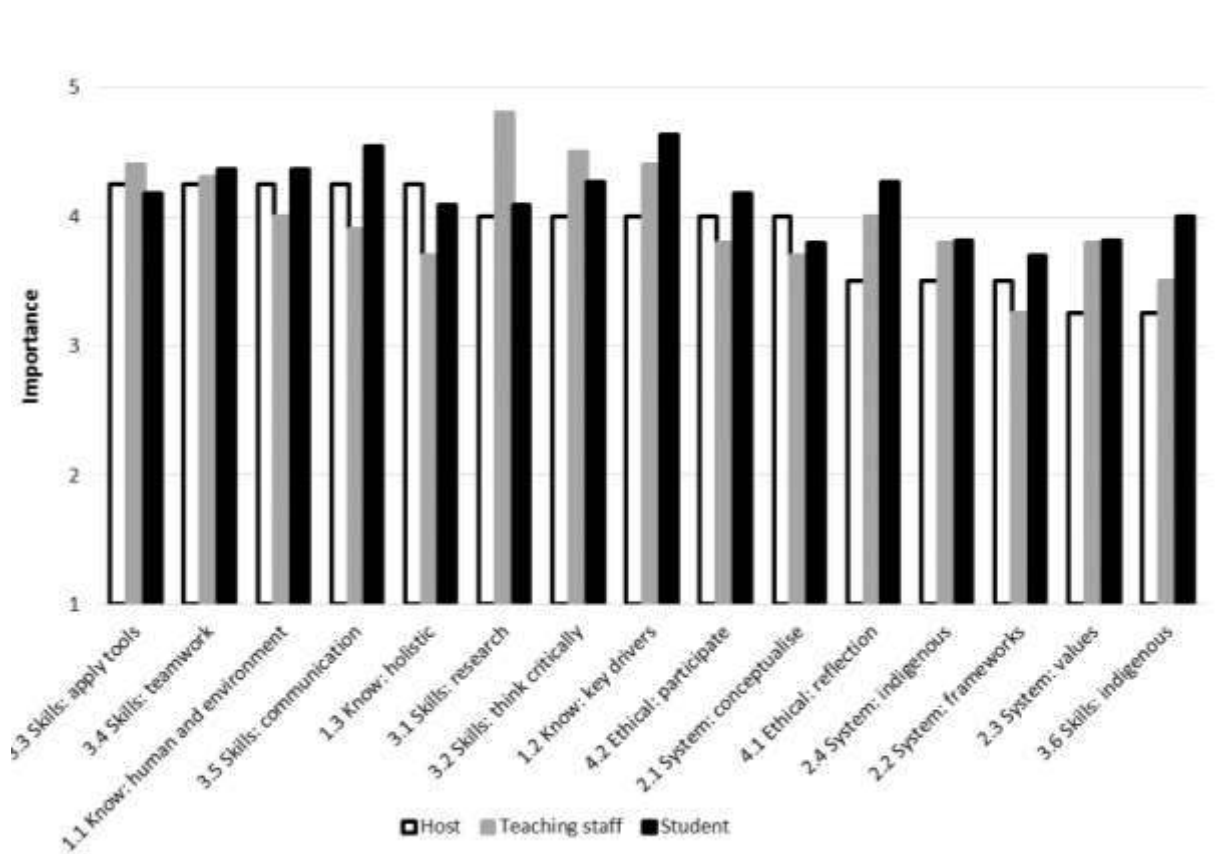


FIGURE 2: Comparison of the importance of threshold learning outcomes (TLOs) of environment and sustainability graduates (Teaching staff  $n=10$ , Hosts  $n=4$  and Students  $n=11$ ). TLOs are ranked left to right on the level of importance reported by Hosts.

A comparison between ratings of student performance of TLOs is presented in Figure 3 and reveals that Teaching staff and Hosts, on the whole rate the students’ performance lower than students rate their own performance. Analysis of Variance identified differences between means ( $P<0.05$ ) for TLO 2.2 System: frameworks, TLO 2.3 System: values, TLO 2.4 System: indigenous and TLO 4.1 Ethical: reflection TLO 2.3, TLO 4.1 Ethical: reflection. Because of the low response rate from Hosts only two of these differences were found to be significantly different using Tukey HSD. *Post hoc* tests identified significant differences ( $P<0.05$ ) in TLO 2.3 System: values (Teaching staff – 2.8 and Hosts – 2.8; Students – 3.7) and TLO 4.1 Ethical: reflection (Teaching staff – 2.7 and Hosts - 2.8; Students – 4.1).

Importance vs Performance plots illustrate differences in the patterns of the three stakeholder groups (Appendix A). Teaching staff and Hosts have similar patterns when importance and performance are compared. Students have a much smaller gap between importance and performance.

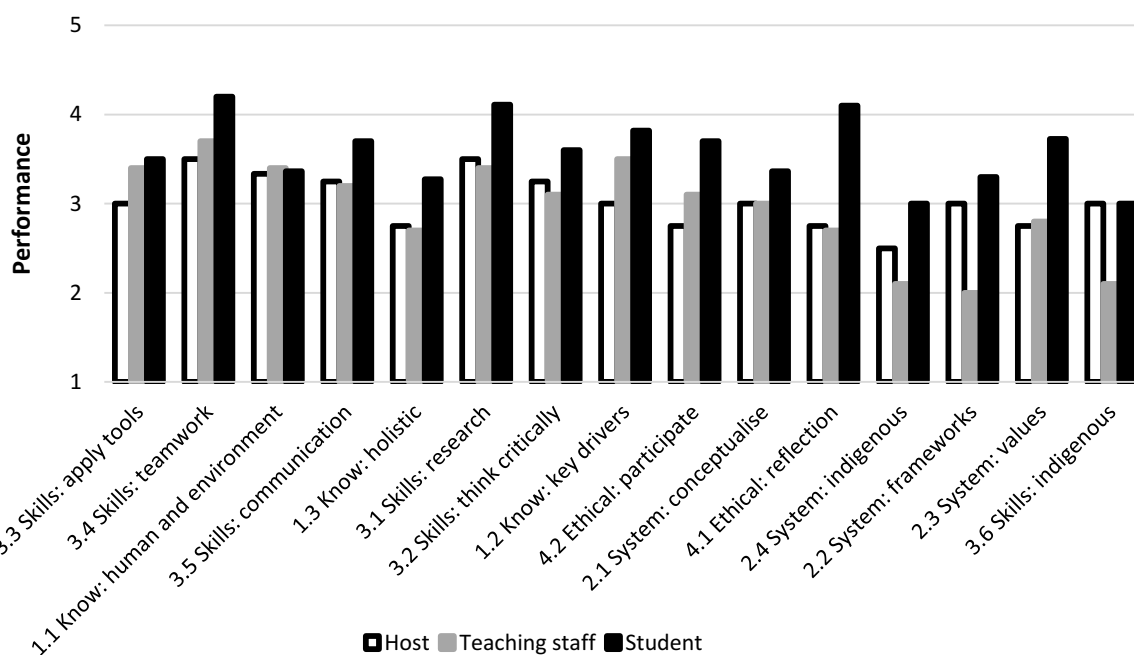


FIGURE 3: Comparison of the performance (1 – low, 2 – basic, 3 – adequate, 4 – proficient, 5 – professional) of threshold learning outcomes (TLO) of environment and sustainability graduates (Teaching staff n=10, Hosts n=4 and Students n=11). TLOs are ranked left to right on the level of importance reported by Hosts.

## DISCUSSION

### *How does the TLO study compare with the GA and CLO study?*

Results from the GA and CLO study in 2014 revealed that students and host-supervisors were better aligned with regard to performance. In the present (TLO) study students rated their own performance quite high (mean of all TLOs 3.6) and similar to the GA/CLO study (3.8). Host-supervisors, on the other hand, rated GA/CLO performance quite high (3.8) and performance of TLOs quite low (3.0). Teaching staff were consistent with their lower rating of student performance (GA/CLO 3.2 and TLO 2.9).

The number of respondents from host-supervisors was low (n=4) and may not be representative. As students complete their placements an invitation is sent to the supervisor to complete the survey. At the time of writing only 10 hosts had been invited to complete the survey.

The complexity of the TLOs may also be a factor that could contribute to a lower rating of student performance. Combining skills within a TLO may have made it more difficult for students to demonstrate their skills. Many of the TLOs combine of three or more skills (1.1, 1.2, 2.1, 2.3, 2.4, 3.1, 3.2, 3.3 and 3.5 – see Table 1). On the other hand, CLOs and GAs tend to be simpler (example CLO below).

Demonstrate imagination, initiative and enterprise in problem-solving.

TLO 3.2 is the closest to the CLO above “Demonstrate well-developed cognitive, technical and communication skills through thinking critically and creatively in designing and evaluating sustainable alternatives and envisioning sustainable futures”. As a respondent completing the survey it is easier to reflect on a students’ placement and remember how they solved a problem rather than associate CLO 3.2 to a task in the workplace. On the other hand, there is no context for problem solving. The problem may have little bearing on how the student performs as a professional working in the discipline of environment and sustainability.

### *What Skill Level is Required?*

The survey asked the respondent for the importance of a TLO but it doesn't ask the skill level required of a new graduate working in the profession. Ranking the Host importance levels from most important to least important (Figure 4) indicated that TLO 3.3 Skills: apply tools was one of the most important TLO. TLO 3.6 Skills: indigenous was rated least import. However, there is no indication that students should, for example, perform TLO 3.3 at a proficient skill level and TLO 3.6 at a basic skill level. With the small number of respondents five TLOs were equal first ranking. Of these TLO 1.3 Know: holistic had the greatest gap between importance and performance (4.2 and 2.8, respectively) (Figure 4). The Australian Qualifications Framework (AQF) describes the learning outcomes for all levels of post-secondary school learning from Level 1 (Certificate I) to Level 10 (PhD) (Australian Qualifications Framework Council, 2013). The graduates of bachelor degrees (Level 7) "will have broad and coherent knowledge and skills of professional work and/or further learning" (Australian Qualifications Framework Council, 2013). In the GA/CLO study and the TLO study the skill level of the student was scaled using Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education and the Department of Education, Employment and Workplace Relations (2013) core skills development framework. The scale provided the host-supervisor the ability to differentiate performance on a realistic scale.

It would be unrealistic for a host-supervisor to be expecting a student who has completed 2.5 to 3 years of study to be working at a Professional level for any of the TLOs. For some TLOs it is realistic that the student is Proficient. For example, one would expect that after 2.5 years a student would be able to find information to conduct a literature review to a Proficient skill level. However, this skill is incorporated into a more complex TLO "3.1 addressing research questions by identifying, synthesizing and applying appropriate knowledge and evidence from diverse sources".

In future surveys hosts will be asked what skill level they expect a new graduate to have to be work-ready rather than asking the level of importance.

### *Are Students Meeting the Environment and Sustainability TLOs?*

With only 4 respondents from host-supervisors it is difficult to assess the performance of students in relation to the nationally recognized environment and sustainability TLOs. The results so far indicate that the students' performance is Adequate. Based on the study of GAs and CLOs host-supervisors rate the students' performance as approaching Proficient. However, the CLOs need to be reviewed so that they align better with the TLOs and incorporate discipline specific context.

### *How will the Results be Used in Course Development?*

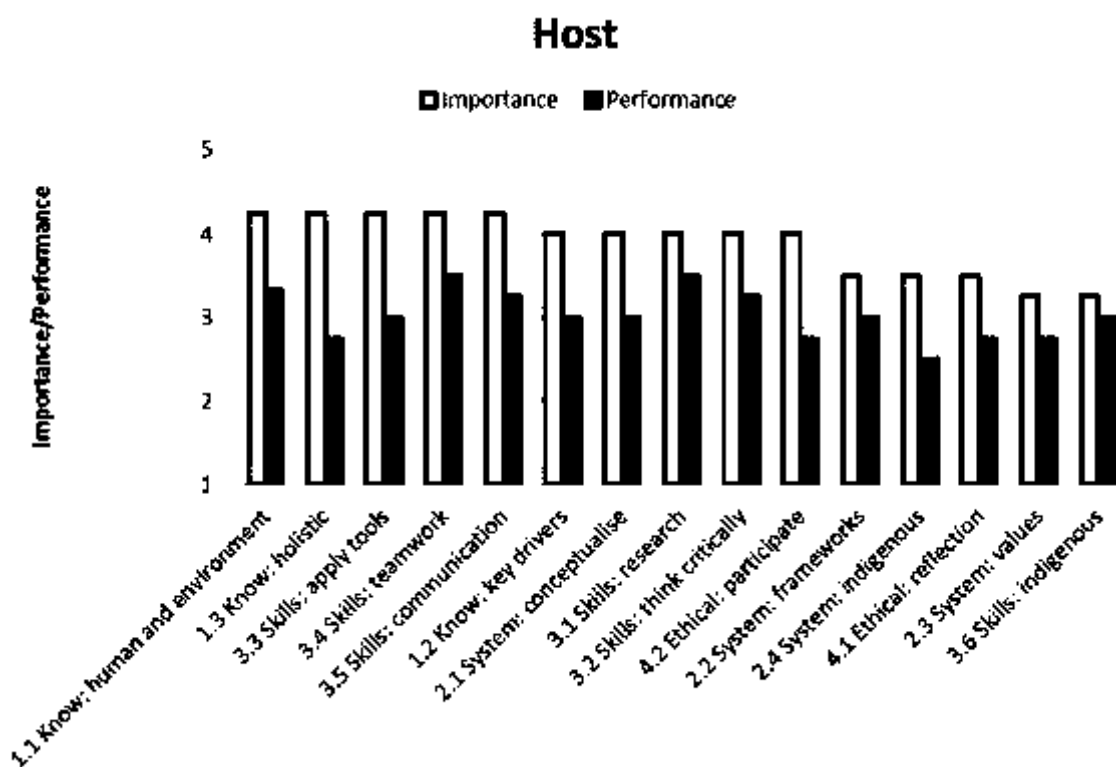
The school is developing a major in waste management. The development team is using the results from the GA/CLO study and results from the TLO study to design the core units in the new major. The current degree is comprised of 8 foundation units in first year that prepare students to study the core units of their chosen major. The core units of the waste management major will focus on the TLOs that are of greatest importance to the industry. In May, 2016, members of the course development team will be running a workshop with potential graduate employers in the waste management industry. At the workshop the team will work with industry to identify the TLOs of greatest importance and then define the skill level of the new graduate to be work ready. From the present study the course development team will have an indication of the gap that needs to be filled. In addition, the course development team will explore the types of assessment that best suits industry needs. Where possible suitable assessment will be incorporated into core units of the waste management major that increase skills in targeted TLOs. The aim will be to meet the industry's need of a work-ready graduate from the eight foundation and nine core units. The remaining seven electives will broaden the students' knowledge and further develop their skills.

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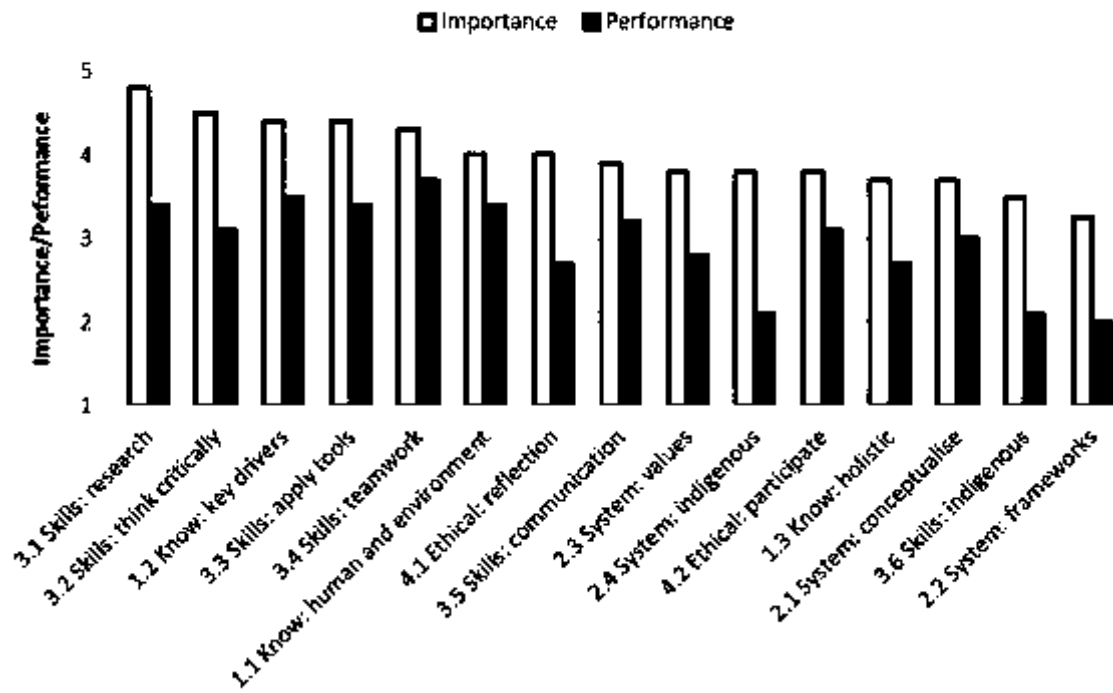
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## APPENDIX A

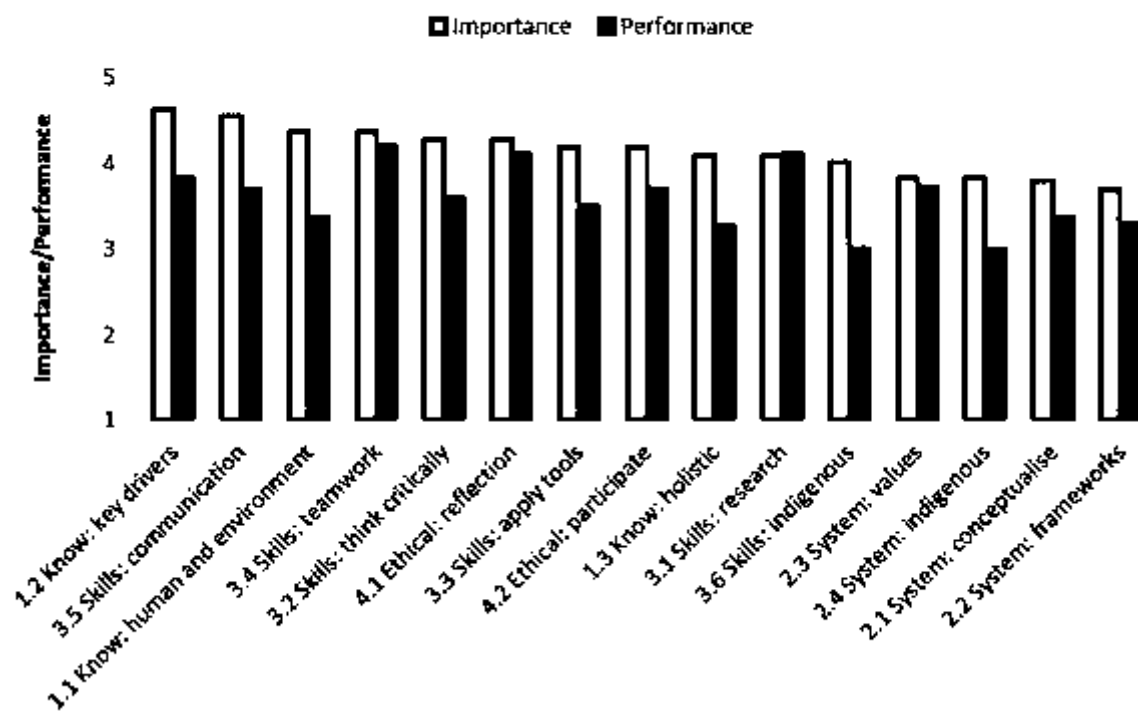
Comparison of the importance and performance of threshold learning outcomes (TLO) of environment and sustainability graduates for the three stakeholder groups (Teaching staff n=10, Hosts n=4 and Students n=11). TLOs are ranked left to right on the level of importance reported by the stakeholder group.



## Teaching staff



## Student





# Online Professional Development Module for WIL Practitioners: Participants' Experience and Impact on their Practice

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## ABSTRACT

With the shift towards increasingly younger, non-academic or non-research, Work-Integrated learning (WIL) practitioners, there is a growing need to provide professional development opportunities to encourage practitioners to advance best practice of WIL. In response to this need, an online professional development module was developed for emerging WIL professionals entitled 'Global Perspectives in Work-Integrated Learning'. The focus of the module was to provide an international perspective of different models of WIL delivery and linking relevant learning theories to the practice of WIL. The module has been presented twice and participants from both cohorts were surveyed. Both cohorts reported an increase in understanding of theories underpinning and different models of delivering WIL compared to before commencing the module. However, respondents also reported a need to develop their understanding further even after completing the module. Interestingly, when the first cohort of participants was surveyed eight months after completing the module, some reported initiating changes whilst others reported they had not. Similarly, the lasting impact of participating in the module, especially around participants' thinking about best practice, still seems to resonate.

## INTRODUCTION

As a community of educators continues to develop and advance its practices, the need to provide professional development to incumbent and, particularly, new-comers becomes increasingly important (Borko, 2004). Previously, considerable work has been undertaken to understand the benefits and needs of the key stakeholders of work-integrated learning (WIL) (see reviews by Braunstein, Takei, Wang, & Loken, 2011; Crump & Johnsson, 2011; Dressler & Keeling, 2011). However, aside from institutional benefits and needs, there seems to be little focus on the changing WIL community and the growing needs situated within these changes (Zegwaard, 2015). Indeed, as the WIL community continues to grow, it needs to invest in developing individuals within the community. A study exploring educators understanding around teaching the nature of science, found that developing a community of practice was useful for developing educators' understanding, however, it had limited impact unless professional development was also included (Akerson, Cullen, & Hanson, 2009). In a similar way, the community of practice for WIL practitioners and researchers (be that through national associations, World Association for Cooperative Education (WACE), or groups outside formal structures) has grown and matured over the years, and during that time the understanding on best practice of delivery of WIL has also significantly

advanced. Over recent years there has been a growing shift for WIL practitioners who are not research active nor enabled to do teaching, however, have roles vital to the success of the WIL program and the student learning. Such practitioners in particular require opportunities to learn more about different best-practice models and an appreciation of the theories that underpin best practices (Zegwaard, 2015).

In order to address the need for professional development for WIL practitioners, four national associations (ACEN, CAFCE, NZACE, VILAR<sup>5</sup>) constructed an online module which was made available to the members of the four associations. This proceedings paper describes the module structure, participants' experiences, and revisits the first cohort of participants eight months after having completed the module to explore any lasting impacts.

## MODULE DESIGN

### *Module Description*

The first module offered as part of the Global WIL course<sup>6</sup> provided a theoretical grounding in experiential learning theory and WIL. Two readings were chosen, an article that provided an overview of experiential learning from five different perspectives (Fenwick, 2000) and a chapter from the International Handbook for Cooperative and Work-Integrated Education that connected experiential learning theory to WIL specifically (Eames & Cates, 2011). The module instructors wanted participants to gain a common understanding of the relevant learning theory and, thereby, share a theoretical foundation regardless of the type of WIL program they were engaged with. In addition to the theoretical grounding, the course offered participants an opportunity to interact with fellow participants and instructors from four countries all of whom were similarly applying the theory to their WIL programs by considering an issue or problem from their particular context. The application of the participants' learning was realized through the on-line platform made available throughout the module.

### *The Online Platform*

In order to facilitate both an on-line learning experience and have all information available in one location, a word press blog was created. The blog was used by participants and facilitators and acted as a platform upon which to post reflections on readings, respond to the postings of others, and to present the issue or problem being considered. Photos of all participants and facilitators were published, and the participants were asked to make an 'gravatar' (a photo of the participant next to their comment). These efforts were intended to provide a personal touch, establish a connected cohort, and facilitate interaction.

The blog had the following components: welcome, module descriptor, weekly schedule, communications tools, facilitators, participants and links. The WIL module contained weekly activities requiring the participants to post comments through a chat feature, respond to the comments of others and engage in asynchronous communication with both fellow participants and instructors. Lock (2006) argued that successful online professional development should not merely be shifting of material online, rather, it requires changes to the flow of information and interaction that is more natural for an online environment. With that in mind, considerable effort was undertaken to consider the learning experience for the participants. The activities included reflections on the required readings, relating the readings to their own practice, reviewing a certain perspective in relation to their WIL practice, and identifying a current challenge or issue. The participants were required to provide feedback to others during the module. Throughout the module the instructors commented on the posts and engaged participants individually and through small group chats. The module ended with a webinar, where participants discussed their particular issue or problem and summarized the learning gained throughout the module. Given the globally distributed composition of the module participants, four separate webinars were organized to accommodate the ten different time zones throughout these four countries. All of this was

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<sup>5</sup> Australian Collaborative Education Network (ACEN), Canadian Association for Cooperative Education (CAFCE), New Zealand Association for Cooperative Education (NZACE), the VILAR Network, Sweden.

<sup>6</sup> Entitled 'Global Perspectives in Work-Integrated Learning'.



supported by email exchanges between the participants and instructors answering specific questions, offering encouragement and clarifying module requirements.

## METHODS

### *Sampling Method*

The module was delivered twice using the same content but with minor changes in the activity type. Participants from both modules were asked to complete an online survey (using SurveyMonkey) before commencing the module and after completing the module. The survey used a mix of agreeance statements (10 point Likert scale) and open ended questions. The pre-module survey consisted of 22 questions and gathered demographic data, asked about the level of experience with WIL, and explored self-perceptions about the level of knowledge and confidence around underpinning theories of learning and best practice of WIL. The post-module survey consisted of 30 questions and gathered similar data to the pre-module survey, in addition to exploring views on how participants thought this knowledge could change their practice and a set of module appraisal data.

The cohort of participants from the first module were surveyed again eight months after having completed the module to determine if they thought having participated in the module was still impacting their thinking about best practice.

The research had ethical approval from the University of Waikato, New Zealand.

### *Demographics*

Participants were drawn from four countries, through their respective national associations; Australia, Canada, New Zealand, and Sweden. Participants within both cohorts had a range of job responsibilities and backgrounds, however, both cohorts were relatively similar in range of diversity (Table 1). The size of the WIL program that the participants were involved with also varied widely from 9 to >6,000, with the range 100-500 being most common.

TABLE 1: Demographic data from participants having completed the first and second delivery of the module.

	Participants	
	First module	Second module
Number	34 started, 22 completed	39 started, 26 completed
Gender	18% male, 72% female	17% male, 83% female
Age		
Mean (years)	~53	~46
Job responsibilities		
Placement coordinators	46%	66%
Teaching	54%	40%
Research	33%	11%
Actively researching	50%	24%
Managers/directors	25%	26%
Faculty/academic	59%	54%
Staff/non-academic	15%	31%
Running WIL program	78%	79%
Qualification level		
Sub-bachelor	0%	1%
Bachelor/hons/grad dip	37%	24%
Masters	52%	44%
PhD	15%	24%
Years involved with WIL	8 years	6 years

## RESULTS AND DISCUSSION

### *Progress Through the Module*

Both cohorts of participants showed similar shifts between pre-and post-module perceptions on their ability and knowledge (Table 2). A significant component of the WIL module was focused on exploring and discussing relevant theories of learning, including engaging in discussions on how these theories could be put into practice and commenting on other participants' views. It was, therefore, perhaps not surprising that participants' views on their level of understanding of learning theories was significantly higher after having completed the module (5.16 to 7.61; 4.94 to 7.59;  $p < 0.01$ ). Interestingly, both cohorts held the view that even after having completed the module they still needed to gain a greater understanding (8.00 and 7.61, respectively; the post-module decrease in the second cohort was not statistically significant). It was expected that the 'need to gain further understanding' perception would decline after completing the module. It is likely that having engaged with the module did result in greater understanding, as indicated by the other data, it may also have led to a new realization of how much the participants did not know, resulting in their self-identifying the need to keep learning in this space.

TABLE 2: Responses to selected agreeance statements from the pre- and post-module surveys of both cohorts, and from the survey eight months after completing the module for the first cohort.

	Module 1		Module 2		8 months post-module one ( $n=16$ )
	Pre ( $n=28$ )	Post ( $n=19$ )	Pre ( $n=35$ )	Post ( $n=22$ )	
I have a good understanding of the theories that underpin my WIL practice	5.16	7.61***	4.94	7.59***	
I (still) have a need to gain more understanding of underpinning theories	8.28	8.00	8.33	7.61	
I believe my WIL program is well informed by theory	5.11	7.40***	5.64	7.29***	
I believe that I now have a good understanding of why WIL is practiced the way it currently is in my program	5.67	7.78***	7.41	7.70	
I now know how to enable effective learning for WIL students	7.28	7.89	8.17	7.88	
The knowledge I gained from this module will improve my practice		8.84		8.05	
It became evident to me during the module how I could apply theoretical knowledge in my practice		8.16		7.24	
The module allowed me to draw better links on how theory underpins practice		8.53		8.00	
Eight months after completing the module, my thinking about best practice and student learning has continued to be changed compared to before I started the module					7.63
Since completing the module, I still reflect on the discussions					6.63
Since completing the module, I began to read more literature					6.44

Note 1: statistical significance of difference using paired student t-test comparing pre-module data to post-module data, where; \*\*\* =  $p < 0.01$ , \*\* =  $p < 0.05$ , and \* =  $p < 0.1$ .

Note 2: Response rates were 82%, 86%, 90%, and 85%, respectively.

The first cohort differed from the second cohort in that prior to engaging with the module, the first cohort were unsure why their WIL program was practiced the way it was whilst the second cohort was more certain (5.67 and 7.41, respectively). However, the first cohort after having completed the module had a significant shift in their level of certainty on why their WIL program is practiced in the way it was (5.67 to 7.78;  $p < 0.01$ ). However, within both cohorts there were also mixed results where, for example, several in the second cohort were, in fact, less sure after having completed the module than before. It is likely that for these participants after gaining a better understanding of learning theories and best practice, they began to challenge their thinking on why their WIL program has its current practice rather than accept it as it was.

Interestingly, both cohorts seemed confident in their ability to facilitate learning for WIL students prior to commencing the module which did not statistically significantly ( $p > 0.05$ ) change after having completed the module (pre 7.28 to post 7.89; pre 8.17 to post 7.88, respectively). Considering both cohorts perceived a large gain in theoretical understanding, and felt confident on knowing how to improve practice as well as being able to draw better links between theory and practice after having completed the module, it is likely the module affirmed participants' thinking about ability to facilitate learning by providing a better foundation for their confidence to what was previously somewhat unsupported perceptions.

#### *Lasting Impact of the Module for First Cohort*

Eight months after completing the module, participants of the first cohort still identified a lasting impact of having completed the module. Immediately after finishing the module, these participants indicated their thinking about best practice and student learning had advanced and after eight months they still held a similar view (7.63), with one participant commenting that their thinking has "continued to evolve". Participants indicated that since completing the module they are still reflecting in the discussions from the module (6.63) and that they are now reading more literature than before (6.44 Likert). Three participants indicated they had returned to the module website to read the blogs again and one participant bound printouts of the blogs to be read later. When asked if participants could think of any other benefits gained from undertaking the module (in addition to the questions in the survey), the comments suggested that participants were now using a different 'lens' to interpret their practice. For example, one participant said "I am much more conscious of learning outcomes when thinking about programs", and another commented "I'm now evaluating more – ensuring that I have evidence for future planning".

Interestingly, 75% of the participants had indicated that since completing the module they have sought out other professional development opportunities, and 88% of these participants answered (very) positively to wanting to undertake another module covering a different topic.

The module may also have impacted on participants' practices. For example, when asked if the module had prompted participants to engage in particular activities, 63% indicated that they had changed some of their practices, 81% were planning to review an aspect of their practice or program, and 63% had initiated a (large or small) research project (however, this number may include those conducting PhD research projects).

One of the intended outcomes of the module was for participants to form lasting connections with other participants. However, only two participants indicated that they had been able to do this despite 69% indicating they desired to remain/renew contact with other participants. Responses to open ended questions indicated that time restraints was the main challenge. The desire of participants to remain in contact with other participants despite few being able to achieve this highlights an issue that needs to be addressed. Later offerings of the module could include a shared online space (e.g., Google Hangouts) that could continue as a convenient way to remain in contact. This echoes recommendations made by Akerson et al. (2009) who strongly advocated for continued interaction after engaging with professional development, going on to suggest that using online platforms will likely be effective.

## CONCLUSION

The module had a positive impact on participants' perceptions of their understanding in underpinning theories of learning. In line with discussion by Akerson et al. (2009), creating effective communities of practice requires professional development opportunities within the community. This online module sits comfortably within that thinking.

We need to remain mindful that the data collected is self-perception data, which is limited to participants' knowledge at the time of completing the survey. For example, the lack of change between the pre- and post-module data for confidence around facilitation learning, may be limited by participants' pre-module notions of understanding of their own abilities.

The participants particularly valued engaging in discussions with peers around challenges in their own workplace, however, very few were able to maintain these discussions after the module had completed. This presents as a significant shortcoming, therefore, for future offerings of this module a continuing post-module, shared online space (e.g., Google Hangouts) will be considered.

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