Using electronic portfolios to explore essential student learning outcomes in a professional development course

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The following study utilizes an ePortfolio platform to examine desirable employment competencies during an introductory level professional development course for cooperative education students at a large, research intensive institution. The researchers created course activities allowing 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 promoted early during students' undergraduate careers through formative feedback in an ePortfolio development process. The results of this study suggest that ePortfolios could be used as a medium to encourage student confidence with respect to employment preparation. 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. (*Asia-Pacific Journal of Cooperative Education, 2016, 17(4), 387-397*)

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With a considerable number of college students leaving colleges and universities with significant levels of debt, it is critical that higher education institutions ensure students' readiness for professional employment post-graduation. Higher education institutions are increasingly evaluating best practices to ensure students are prepared for their transitions to the world of work. Specifically, institutions offering formal work-integrated learning opportunities for students provide a sound platform for which to promote 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). Institutions have attempted to answer the call on higher education to authentically assess students' progress to develop and provide evidence of competencies through the use of electronic portfolios (ePortfolios) (Ferns & Comfort, 2014). As the technology changes, institutions focus on the implementation challenges (Ferns & Comfort, 2014; McDermott & Gallagher, 2011). Use of ePortfolios to assess learning should focus on the process of reflecting on learning within the context of learning outcomes. The following study focuses on the suggested learning outcomes resulting from the LEAP Report and utilizes an ePortfolio method to exhibit student learning and perceived confidence prior to one's first cooperative education experience. Specifically, this study shares details about ePortfolio usage with higher education contexts; discusses how ePortfolios could showcase student learning; addresses how written communication and teamwork competencies can be promoted as a result of intentional integration into courses; and shares how ePortfolio assignments can enhance student confidence with respect to job search preparation.

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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 repository of selected work to convey their skills, provide narrative context to their life experiences, and reflect on their learning over time. 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 multiple academic terms. The ePortfolio serves as an archive for significant developmental experiences as students demonstrate competencies to be showcased in electronic format.

The Becta 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)" (Hartnell-Young et al., 2007, p.4). Further, this study postulates "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.

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 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). Additionally, general education requirements can be assessed through ePortfolios representing various disciplines over time and through multiple platforms (Benander, Robles, Brawn, & Refaei, 2016). 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 institutions can encourage students taking ownership of their learning by asking them to provide a personal interpretation of their education in ePortfolios while attaching meaning of the learning to their lives.

ePortfolio methods for examining student learning are becoming increasingly more common in higher education settings due to the versatility of the platform for showcasing students' competencies and lived experiences. Reardon, Lumsden, and Meyer (2004) utilized ePortfolios to showcase student learning over the course of students' undergraduate experiences. The researchers claimed that ePortfolios were 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 posited that ePortfolios could 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 conclusion of their collegiate experience (Kilgore, Sattler, & Turns, 2013; Sattler & Turns, 2015). Results focused on how ePortfolios facilitated student development towards effective reflection through scaffolding. Few studies present evidence of how students are encouraged to actively transform their experiences around identified learning objectives to better articulate their development.

The Association of American Colleges and Universities (AAC&U) conducted research on 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 college 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 competencies 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). Alarmingly, 63% of these same employers did not believe that new college graduates had 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 attested 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 work-integrated learning programs should be utilized to better prepare students for their transitions to the professional employment 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).

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. Students participated in a 55-minute class session dedication to introduce the ePortfolio and associated assignments. The researcher not listed as the instructor of record walked students through a sample ePortfolio. Through the sample ePortfolio, students learned what pages they were expected to build in their ePortfolios. They were encouraged to be as creative as possible to embed images, documents and videos as related artifacts. Grading for the ePortfolio assignments was maintained on the university's learning management system and students submitted the URL of their ePortfolio through the same system. Video tutorials were provided to students in advance to foster a flipped classroom environment, where students were expected to learn material prior to the class meeting. In-class activities and discussion fostered students' perspectives as it related to the learning objectives.

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). 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. The researchers administered a survey to employer partners to measure the extent to which employer partners valued the AAC&U essential learning outcomes in prospective employees. Selection of the specific learning outcomes were driven by survey results from the co-op employer partners. The results of the survey confirmed that employer partners of

the researching university significantly valued AAC&U's essential student learning outcomes, but most significantly 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 published criteria with qualitative questions to increase student understanding of the competency (Rhodes & Finley, 2013). In-class activities required students to meet in groups of two or three students to share their ePortfolio content. 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 provided multiple forms of feedback over time as iterative feedback is acknowledged as an integral component of the ePortfolio development process.

The researchers employed a program evaluation methodology (Whitley, White & Adams, 2013), whereby the goal is to evaluate students' use of ePortfolios in a first-year introductory professional development course. 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 required 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 iterative design process of their ePortfolios to make ongoing improvements. 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. After the pre-assignment confidence survey, students were provided with a detailed outline of an assignment requiring them to reflect on significant teamwork experiences in their lives. Students were asked to articulate how they have used teamwork in the past and how their teamwork could be directly transferrable to professional contexts. The assignment outline was driven by the adapted AAC&U feedback rubric addressing teamwork competence. 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 could potentially enhance 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 the students with a detailed outline of an assignment requiring them to reflect on their personal written communication competence as well as characteristics of strong writing. Students were asked to show an example of written communication abilities in their electronic portfolios. The assignment outline was driven by the adapted AAC&U feedback rubric addressing written communication competence. 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 could potentially enhance students' confidence levels regarding the variable of written communication in a professional environment.

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 due at the conclusion of the academic term. Specifically, 67% of students enrolled in the course utilized peer feedback throughout the development of their course assignments in an organic and non-required manner.

The researchers utilized a rubric method throughout the ePortfolio section of the course to provide students with formative feedback from peers and professional staff. 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% of students indicated that rubric feedback from peers influenced the creation of the final ePortfolio for the course. Further, 71.8% of students indicated that peer feedback convinced students to change portions of their ePortfolio. Additionally, 92.3% of students indicated that rubric feedback from professional staff (i.e., researchers) influenced the creation of their final ePortfolios and 82% 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% 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 results of the present study suggest that the incorporation of ePortfolios in higher education assignments may offer legitimate benefits to students. Specifically, they may enhance student confidence in numerous valued career education competencies. Knowing that structured ePortfolio assignments could contribute to enhanced confidence levels in students is noteworthy on several fronts. As educators, a central role should be the continued preparation of students for their inevitable transitions to the world of work. Teaching methodologies that contribute to this effort should be prioritized whenever possible. Utilizing ePortfolios as a reflection tool to showcase student learning is a principal example of furthering student development in the career development space. Further, as first and second year students often struggle to feel self-assured prior to work-integrated learning experiences (e.g., co-ops, internships) educators should be aware of those practices that could contribute to greater student confidence and self-efficacy. Perhaps the use of ePortfolios and assignments aimed at essential student learning outcomes from AAC&U could be used to enhance student confidence and self-efficacy in preparation for work placement experiences.

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 could 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 exhibiting these competencies in a professional context. 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 could 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 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. Future studies could consider assessing students' levels of confidence at different touchpoints during the job placement/interview process. Since the ePortfolio was developed in the first year, there exists the potential for students to add more experiences (e.g., their co-op experiences) to further enrich their narrative. 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, evaluating 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 an academic course. 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 indication is clearly noteworthy. Students in this study illustrated 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.

Results of this study possess 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 a small sampling of the student population.

Outside the scope of this study, ePortfolios were implemented in sections of the Introduction to Cooperative Education course for engineering students at the researching institution. Students in select engineering disciplines will be required to enroll in a mid-curricular professional development course that will require students to build and/or update their ePortfolios. This implementation presents the possible opportunity for a final touchpoint in the form of a capstone experience utilizing ePortfolios, thus creating a potential avenue to examine ePortfolios' facilitation of student learning longitudinally.

CONCLUSION

Cooperative education is based on a three-party relationship between the university, student, and co-op employer (University of Cincinnati, 2010). An ePortfolio could be seen as the interfacing vehicle for all three constituent groups. For ePortfolios to become useful for co-op employer partners, more students need to build ePortfolios creating a critical mass to generate sufficient interest. Upon reaching that critical mass, employer partners will soon discover the power to evaluate students' candidacy for a co-op position that transcends the traditional resume and interview. Student-generated ePortfolio content that addresses the student learning outcomes outlined by the AAC&U offers employers qualitative data that addresses the behavioral, situational, and skills-based interview questions they may have. In the end, the employer-student interaction through the interview process could then be directed to address student interests and person-organizational fit. The ePortfolio is the way to make this connection.

For the student, an ePortfolio offers an outlet for creative freedom and ownership of their learning. Embedded in the ePortfolio development process, students showcase not only their skills, but their digital identity and web-based presence. The implication of portraying themselves through the Internet offers a new sense of reality on how their presentation of self is reflected back to them. Such feedback could incite new perspectives on how students view relationships, present and organize evidence of their learning, and derive meaning from their experiences.

Finally, university faculty could use ePortfolios as a tool for teaching and instruction with a heightened focus on validating students as knowers in the learning process. Educators have a critical responsibility to provide validation to students as they progress through their personal development journeys (Baxter Magolda & King, 2004). It should be acknowledged that the sharing of life experiences and personal learning through a public medium suggests a degree of vulnerability and trust on behalf of students. ePortfolios should be seen as an

opportunity for educators to provide validation to students regarding their expression of significant life experiences through their personal narratives. The researching institution cares deeply about the validation process and believes that providing a student voice in the learning process can help them grow in their academic and professional careers. Through the use of ePortfolios, students' current knowledge can be validated, establishing a baseline of current experiences. Reflections published in student ePortfolios offers students a point of comparison with peers to consider future learning goals for the duration of their experience at the university and beyond.

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If the manuscript is deemed acceptable for publication, and reviewers' comments have been satisfactorily addressed, the manuscript is prepared for publication by the Copy Editor. The Copy Editor may correspond with the authors to check details, if required. Final publication is by discretion of the Editor-in-Chief. Final published form of the manuscript is via the Journal website (www.apjce.org), authors will be notified and sent a PDF copy of the final manuscript. There is no charge for publishing in APJCE and the Journal allows free open access for its readers.

Types of Manuscripts Sought by the Journal

Types of manuscripts the Journal accepts are primarily of two forms; *research reports* describing research into aspects of Cooperative Education and Work-Integrated Learning/Education, and *topical discussion* articles that review relevant literature and give critical explorative discussion around a topical issue.

The Journal does also accept *best practice* papers but only if it present a unique or innovative practice of a Co-op/WIL program that is likely to be of interest to the broader Co-op/WIL community. The Journal also accepts a limited number of *Book Reviews* of relevant and recently published books.

Research reports should contain; an introduction that describes relevant literature and sets the context of the inquiry, a description and justification for the methodology employed, a description of the research findings-tabulated as appropriate, a discussion of the importance of the findings including their significance for practitioners, and a conclusion preferably incorporating suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical discussion of the importance of the issues, and implications for other researchers and practitioners.