

Building an excellent foundation for research: Challenges and current research needs

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The delivery of research-informed education is a fundamental principle held by universities and is a principle that work-integrated education (WIL) should not be exempt from. In the 1980s and 1990s, critical reviews of the WIL literature suggested WIL research required significant development. Since these reviews were conducted a significant, well-developed body of literature has formed and increasingly WIL models of delivery are relying on research findings to inform program design. However, despite these successes, significant challenges and research gaps still exist. Authors in this APJCE special issue have given attention to a number of areas that present as challenges. The area of negative and neglected research findings are highlighted and the reexamining the nature of the relationship between the student and workplace supervisor has been discussed. A model of enabling transformative learning is presented and an investigation of the influence of WIL experiences on undergraduate student study direction choices has been reported. Other areas in need of further research attention are also discussed. (*Asia-Pacific Journal of Cooperative Education, Special Issue, 2015, 16(2), 89-99*)

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Research in work-integrated learning (WIL) has advanced considerably over the past 100 years. It is interesting to note the change in commentators' descriptions of the state of the WIL literature. R. L. Wilson (1988) conducted a review of the research in cooperative education (co-op; then the common term, however, international usage now favors the broader term WIL, see discussion by Gardner & Bartkus, 2014; Groenewald, Drysdale, Chiupka, & Johnston, 2011), which indicated there was an often-made criticism that not enough quality co-op research had taken place at the time. Wilson also commented that the nature of the published literature tended to be predominantly focused on the pragmatics of day-to-day delivery of co-op programs and the research was not meeting 'the ideals of scientific inquiry' (p. 83). Wilson went on to call for more empirically based research, likely referring to predominantly quantitative research approaches (however, see Zegwaard & Hoskyn, 2015, for discussion around the more recent shifts from quantitative to qualitative research). Nine years later, Bartkus and Stull (1997) also conducted a critical view of the state of the co-op literature and found that the literature was described as 'sketchy, sparse, limited, spotty, and uncertain' (p. 7). Even though these remarks may seem harsh, it is important to acknowledge that the research focus reflected the pressing matters of the time, however, it also described a research field that needed to shift from the early developmental stages to more advanced research. Interestingly, when the review was repeated 15 years later, Bartkus and Higgs (2011) commented that the state of WIL research had significantly advanced and was in a considerably stronger state than from 10 years earlier. Similarly, it has been argued that as a research field, WIL has grown and matured (Zegwaard, 2012), and shown evidence of research approaches, and critical interpretations, using theoretical underpinnings (Zegwaard & Coll, 2011). This maturing of the research field has also been reflected by the establishment of university-based WIL/experiential education orientated research centers, for example, the Centre for the Advancement of Co-operative Education at

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the University of Waterloo, and the Research Institute for Professional Practice Learning and Education at Charles Sturt University, in addition to similar activities by associations, for example, the WACE Institute of Global and Experiential Education, the WACE international research symposiums, and the various research roundtables held in conjunction with national association conferences.

WIL research may have advanced significantly but there still are considerable challenges to overcome. There are important areas requiring greater research attention. Increasing institutional demand for greater accountability is driving the need to validate commonly accepted practices with evidence, and with changing technology comes exciting new opportunities to change our practices. In this special issue on *Building an Excellent Foundation for Research* (2015), the theme from the inaugural WACE International Research Symposium held at University West, Trollhattan, Sweden, some of these challenges are identified and explored.

WORK-INTEGRATED LEARNING RESEARCH GAPS AND NEGATIVE IMPACTS

There is a tendency of published WIL research and scholarly discussion articles to emphasize the positive impacts WIL can provide students, employers, and institutions (refer to the vast collection of citations within reviews of benefits by Braunstein, Takei, Wang, & Loken, 2011; Crump & Johnsson, 2011; Dressler & Keeling, 2011). It is undeniable that participating in WIL can offer a multitude of positive benefits to all the key stakeholders. However, it must not be ignored that participating in WIL can also generate negative impacts, nor can it be ignored that WIL research does occasionally generate negative or undesirable findings. The WIL literature is also not complete and still contains difficult gaps in need of in-depth research.

In this APJCE special issue, Patricia Rowe (2015) presents a challenging study exploring established WIL researchers and practitioners perceptions of research gaps and negative findings. P. Rowe's work draws attention to some difficult areas seldom well discussed. For example, P. Rowe discusses the work of J. W. Wilson and Lyons (1961) where only small differences were found between co-op and non-co-op graduates' confidence in obtaining their first job after graduating, an area that subsequently has received little attention. P. Rowe also identified the concern that many WIL programs lack academic staff actively researching and challenging the practices of the program and P. Rowe goes on to identify a significant list of negative and neglected research findings related to each of the key stakeholders. P. Rowe ends with two important challenges; that decision-makers should be more aware of WIL research findings and that the underlying motive to undertake research needs to shift away from justifying the existence of programs to the more challenging educational issues that are currently neglected.

STAKEHOLDERS PERSPECTIVES

Considerable work was undertaken in the past century around key stakeholders perceptions of, and benefits from, participating in WIL (see reviews by Braunstein et al., 2011; Crump & Johnsson, 2011; Dressler & Keeling, 2011). These earlier works were crucial in developing critical thinking around the nature of the relationship between the key stakeholders. Of late there has been a focus around stakeholder responsibilities (A. Rowe, Mackaway, & Winchester-Seeto, 2012), understanding their underlying motivations (Fleming & Hickey, 2013), expectations (Patrick et al., 2009), positions of influence (Cooper, Orrell, & Bowden,

2010), change in organizational commitment (Pennaforte & Pretti, 2015), and inclusion of workplace supervisors in student assessment (Peach, Ruinard, & Webb, 2014).

The work reported by Fleming (2015) in this APJCE special issue highlights the complexity of the relationship between the student and the workplace supervisor, and brings to attention the importance of workplace supervisors providing a quality and challenging learning environment. The research work also identifies that even though students learn by verbal instructions and observation of tasks, it is through developing professional relationships, and engaging in meaningful interactions within those relationships, that the deeper contextual understanding of what it means to be a professional develops. This aspect of Fleming's work adds further to the increasing focus in the literature on what role work placements can provide around developing professional identity. Fleming (2015) goes further to identify the importance of the role of the academic/university supervisor in the reflective integration of the newly acquired knowledge from the workplace with on-campus learning. Earlier work by Fleming and Hickey (2013) also explored some of the complexities between the key stakeholder relationships and highlighted that some long-accepted assumptions around the nature of the relationship of the three key stakeholders can no longer be assumed to be true. In fact, considerable shifts may have occurred in the nature of the tripartite relationship where it is now more accurate to view the relationship as a strategic alignment rather than a partnership. In this APJCE special issue, Fleming (2015) points out that, despite having greater understanding around the nature of the relationship between the key stakeholders and their influence on the quality of the student learning, further research is required to understand the importance of workplace colleagues situated around the student in the workplace and their influence on the student learning experience.

LEARNING OUTSIDE THE CLASSROOM

A fundamental believe within WIL is the expectation that learning occurs beyond the classroom context. However, learning experiences beyond the classroom context, or for that fact, beyond the campus context, are not unique to WIL. It should be kept in mind that beyond our 'realm of familiarity' sits a wide array of other 'beyond campus experiences' that can provide valuable learning experiences for students.

Helyer and Corkill (2015) in this APJCE special issue report on research comparing university teaching staff perceptions of different learning modes, such as experiential learning, flipped classrooms, and MOOCs (massive open online courses). The importance of informal learning is discussed and an argument is presented for a shift away from the traditional thinking that the university is the primary place for classroom higher learning. The research found that university teaching staff related well to the term 'experiential learning', however, found it difficult to relate to 'flipping'. The research also suggests that MOOCs could be a useful learning opportunity for students whilst in the workplace. The authors acknowledge the limitations of their small scale work, however, this work does remind WIL researchers and practitioners that a vast array of different modes of delivering education lays beyond the traditional university classroom-based teaching and WIL placements. The possibilities, of using these different modes of delivering education, whilst students are on placement presents as an exciting area for further new WIL research.

TRANSFORMATIVE LEARNING IN WORK-INTEGRATED LEARNING

Miller and Sellar (1990) described three educational orientations; transmission, transaction, and transformative. Van Gyn and Grove-White (2011) explored these further in the context of WIL, which subsequently was further discussed by Eames and Cates (2011) using relevant theories of learning. Van Gyn and Grove-White (2011) describe transmissional learning as “ensuring the transmission of knowledge, skills, and values (p. 32)” and transactional learning as “emphasizing the development of skills needed to acquire knowledge (p. 33)”. Transactional learning differs from transmissional learning by the focus on the learner’s ability to learn, whilst transformative learning is focused on “the growth in critical consciousness, autonomy, and independent thinking (p. 36)”. Most of the discussion on learning from participating in WIL tends to focus on transactional and transmissional orientations of learning. However, there needs to be greater recognition that during work placement transformative learning can, and does, occur. Transformative learning identifies that learners develop as a critical agent of change within their own professional environment, an important attribute needed for becoming a successful professional (Campbell & Zegwaard, 2011; Trede, 2012). Surely, a fundamental goal of any comprehensive WIL program must be to develop emerging professionals with critical minds that can shape how the future workplace looks.

In this APJCE special issue, McRae (2015) presents a theory-informed research project exploring perceptions of transformative learning held by students, workplace supervisors, and placement coordinators. McRae discusses the enablers of transformative learning, which tend to vary for each case, however, seven enablers were found to be in common across the cases. McRae (2015) continues on to present a comprehensive model for enabling transformative learning WIL. The model, and the critical discussion around the model, makes a strong case that learning within WIL programs goes beyond transactional and transmissional learning. The article also explicitly brings Yrjo Engestrom’s work on Activity Theory (see further details in Engestrom, 1999, 2014) back to the attention of WIL practitioners and researchers.

WORK-INTEGRATED LEARNING IMPACTING STUDY DIRECTION

It has long been identified that WIL experiences enhance career clarification (see review by Dressler & Keeling, 2011, and citations within). Additionally, statistical modelling has identified links between workplace experiences and academic performance (Gomez, Lush, & Clements, 2004; Mandilaras, 2003; Tanaka & Carlson, 2012) and with job performance (Tanaka, 2015). However, the influence of work placements on students’ study direction and paper/course choices has to date been very limited. A qualitative study identified a link between undergraduate workplace experiences and students choices to undertake postgraduate studies (Zegwaard & McCurdy, 2014), however, little work has been undertaken to identify the existence of links between workplace experiences and undergraduate study choices.

Drysdale, Frost, and McBeath (2015) in this APJCE special issue present a quantitative study investigating if there are differences in the number of changes to degree majors (i.e., changes to students’ study specialization, degree, or entire study program) between co-op and non-co-op students across five different disciplines (the article uses the term co-op rather than WIL to reflect the North American context of the study). The findings showed that the number of changes students make to degree majors was significantly lower for co-op

students than non-co-op students; however, when co-op students did change their degree major it was mostly because they felt staying with their current major would negatively impact on their future goals. It was suggested that during their work placements co-op students gained a better appreciation of the range of possible career paths within their current study direction, therefore, tended not to make change to their degree major. However, non-co-op students may be less informed about career options and, therefore, could be changing degree majors reflecting their current personal interests rather than long-term goals. The article by Drysdale and colleagues provides a clear indication of the immediateness of impact that co-op/WIL has on study direction and paper selection.

OTHER AREAS IN NEED OF RESEARCH

In addition to the research published in this APJCE special issue, it is important to consider a number of other areas in need of further research and development.

Use of Technology

Technology is advancing at a very rapid pace and presents a significant challenge to universities as it may substantially change the way universities look and operate in the future (Oliver & Goerke, 2007). However, the impact of new technology on the delivery of WIL programs and the opportunities new technology could present to enhancing learning outcomes for students participating in WIL has seldom been explored. Thus, so far, WIL literature reporting on opportunities of technology has largely been limited to use of learning platforms such as Moodle or Blackboard (e.g., Hay & Dale, 2014; Howison & Finger, 2010), ePortfolios (e.g., Dinan-Thompson, Lasen, & Hickey, 2010; Ferns & Bosco, 2014; McDermott & Gallagher, 2011), and online blogging or reflective journals (e.g., Lucas & Fleming, 2012; Woodley & Beattie, 2011), in addition to the suggestion of using social-media platforms such as Facebook and Twitter (Howison & Finger, 2010). The area that has received the most attention so far has been ePortfolios and online reflective blogging, and this has already seen some exciting changes in the delivery of WIL programs. However, the use of new technologies in WIL could go far beyond these areas and presents as an exciting area for future research.

Integration of Learning

Integration is one of the fundamental words in WIL and because the word 'integrated' is part of the term WIL it seems to be automatically assumed that integration occurs. However, how one 'integrates' skills and knowledge learned during workplace experiences with on-campus learning (and vice versa) is still poorly developed (Coll et al., 2009) and the literature suggests that the claim of integration tends to be more rhetoric rather than reality (Coll & Zegwaard, 2011). An effective enabler of integration could be the use of explicit and critical reflection of workplace learning during on-campus learning activities (Coll et al., 2009). However, to truly and effectively allow for explicit integration, many institutions would require a whole-of-program curricular redesign (see discussions by Johnston, 2011). A significant challenge to effective integration is that established university structures seldom provide the flexibility to allow extensive integration of workplace learning with on-campus learning. Thus, the development of effective means of integration and, in particular, the implementation of such approaches still presents a significant challenge to WIL researchers and program developers.

Professional Identity Development

Early work on what constitutes a 'work-ready graduate' was dominated by discussions around acquisition of technical competence. These discussions eventually included the additional acquirement of desirable behavioral skills (non-technical or 'soft' skills) as key attributes required of work-ready graduates (behavioral skills seem to now dominate these discussions). The literature is now increasingly identifying the need for new graduates to have a sense of self-awareness of their professional identity and professional ethical behavior (Bates, Bates, & Bates, 2007; Campbell, Herrington, & Verenikina, 2009; Campbell & Zegwaard, 2011, 2015; Trede, 2012; Trede, Macklin, & Bridges, 2011). That is, graduates that understand what it means to be a professional in a professional context rather than just being able to engage in a set of tasks and interactions in a professional context. Such graduates would be enabled to cause change around them for the betterment of the workplace and its practice, which means these graduates would be agents of change rather than participants of the norm. During WIL experiences students see professional behavior and are required to actively engage with and practice these professional behaviors. However, research is still needed on what aspects, and to what extent, graduates require these abilities when entering the workplace. Further research is also required around how to structure such learning into WIL programs to cause this learning to be explicit. It presents as an exciting and developing area for WIL research.

Assessment of Student Learning

Assessment has long been a topical and contentious issue for WIL (Canter, 2000; Coll, Eames, Zegwaard, & Hodges, 2002; Yorke, 2005) and likely will remain so due to the unpredictable, variable, and social nature of WIL (Garnett, 2012). Despite attempts, many traditional assessment practices are difficult, or even inappropriate, to apply to the WIL context and it has been recognized that assessment practices in WIL requires a major rethink (Ferns & Zegwaard, 2014, and other papers within the APJCE special issue on assessment). There is an impressive body of literature discussing challenging areas around assessment in WIL (see Hodges, 2011, and citations within), however, there still is a pressing need for further work to develop truly authentic, robust, reliable, and defensible assessment practices that measure and informs student learning whilst participating in WIL.

Resilience, Persistence, Motivation, and Expectation

Four important words receiving increasing profile in primary and secondary education, but seldom used in WIL literature are; resilience, persistence, motivation, and expectations (Hattie, Biggs, & Prudie, 1996; Sautelle, Bowles, Hattie, & Arifin, 2015; Seaton, Parker, Marsh, Craven, & Yeung, 2014; Waxman, Gray, & Padron, 2003). Much of these discussions stem from concern that students require greater resilience to successfully manage the challenges of education (and life in general) as well as an ability to persist and be self-motivating when these challenges become difficult or result in failure. The ability to overcome setbacks or failure, whether small or large, is a fundamentally important ability new graduates must possess when entering the workplace. In addition, research has also shown that setting high (and clear) expectations of learning has positive effects on student learning outcomes as students tended to rise to meet the expectations (Rubie-Davies, Hattie, & Hamilton, 2006; Walkey, McClure, Meyer, & Weir, 2013), especially if these expectations are supported by student empowerment (Sibthorp & Arthur-Banning, 2004).

There has been little research on what impact WIL placement experiences have on students' resilience, persistence, and motivation, nor what direct impact clear expectations (by the student, employer, and placement facilitators) could have on WIL learning outcomes. A few recent studies indicate this is a promising field for research. For example, a study by Reddan (2013) showed a direct link between students' motivation to do well during work placement and the grading scales used, Edgar and Connaughton (2014) discussed the importance of maintaining motivation to enhance placement learning outcomes, and Drysdale and McBeath (2014) showed that participating in WIL had mostly positive outcomes on students' hope, self-concept, and motivation. It should be a priority to investigate how WIL programs could be structured to allow students to (safely) experience setback and failure, and to capture these experiences as positive and valuable learning opportunities for the student. In addition, research should be undertaken to further understand how participating in WIL impacts on students' resilience, persistence, and motivation and, vice versa, how resilience, persistence, and motivation impacts on students' learning outcomes from participating in WIL placements.

Researchers and Practitioners

The WIL community needs to continue to build up and invest into its own community and, particularly, the individual people within the community. There appears to be two pertinent needs in the WIL community: the development of new emerging researchers and the development of WIL practitioners who are not research active. The growth in the number of PhD candidates undertaking research in WIL is an encouraging sign, however, the area of developing new researchers and practitioners has, thus far, received little direct attention by the community. Perhaps it is seen that conferences and preconference workshops suffice or it is assumed to occur naturally within their respective tertiary educational institutions. However, the WIL community can, and should, do more because there are younger, emerging researchers that need to be nurtured and supported to enable them to be future researcher leaders and to ensure that the next generation of researchers can continue to build upon the knowledge laid out by past and present researchers.

There has also been a significant shift towards WIL practitioners who are not researchers that provide a vital component to the successful delivery of WIL programs. The WIL community needs to be mindful of this shift and recognize that with this shift new needs develop. These practitioners require access to opportunities to learn more about different best-practice models and an appreciation of the theories that underpin best practices. Such opportunities could be enabled by relevant national associations providing, for example, exchange opportunities where a practitioner could work for a period of time alongside an established and mentoring researcher. Associations could also provide professional development opportunities, such as, courses/modules, conference workshops especially suited for practitioners who have little or no research opportunities, or symposiums with a strong research focus such as the WACE research symposium from which this APJCE special issue derives.

CONCLUSIONS

The research-informed understanding present in the current WIL literature has significantly advanced since the reviews of 1988 and 1997. Increasingly WIL researchers are conducting theory-informed research and critical literature-informed interpretation, and then linking the interpretation back to the growing body of literature. Such work subsequently allows

for the development of research evidence based WIL programs. However, as P. Rowe (2015), and other authors of this APJCE special issue, have highlighted there are still significant challenges and gaps in the literature in need for further research. In addition, as the work by Fleming and Hickey (2013) indicated, there are areas perceived as well explored and accepted that need to be revisited and retested to determine if the validity of the understanding obtained at the time still holds true today.

Universities maintain that the delivery of research-informed education is a fundamental principle of university education - WIL should not be an exception to this principle. The WIL community must continue to advance research in order to challenge our established practices, continue to advance best practice, and to validate the claims the community so passionately believes. Researchers should be encouraged not to limit research activity to 'safe' areas or to projects that focus on validating their respective programs (albeit, these are important areas), but to also be bold in their research endeavors, drawing in relevant research-informed understanding from areas beyond the sphere of WIL, and take risks with research in order to push further the limits of our understanding.

REFERENCES

- Bartkus, K. R., & Higgs, J. (2011). Research in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 73-84). Lowell, MA: World Association for Cooperative Education.
- Bartkus, K. R., & Stull, W. A. (1997). Some thoughts about research in cooperative education. *Journal of Cooperative Education*, 32, 7-16.
- Bates, A., Bates, M., & Bates, L. (2007). Preparing students for the professional workplace: Who has responsibility for what? *Asia-Pacific Journal of Cooperative Education*, 8(2), 121-129.
- Braunstein, L. A., Takei, H., Wang, F., & Loken, M. K. (2011). Benefits of cooperative and work-integrated education for employers. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 277-286). Lowell, MA: World Association for Cooperative Education.
- Campbell, M., Herrington, A., & Verenikina, I. (2009). Journeying from college to work: The changing identity of early-career police. *Journal of Cooperative Education and Internship*, 43(1), 55-64.
- Campbell, M., & Zegwaard, K. E. (2011). Ethical considerations and workplace values in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 363-369). Lowell, MA: World Association for Cooperative Education.
- Campbell, M., & Zegwaard, K. E. (2015). Developing critical moral agency through workplace engagement. In M. Kennedy, S. Billett, S. Gherardi & L. Grealish (Eds.), *Practice-based learning in higher education: Jostling cultures* (pp. 47-64). Dordrecht, The Netherlands: Springer.
- Canter, M. (2000). The assessment of key skills in the workplace. *Journal of Cooperative Education*, 35(2-3), 41-47.
- Coll, R. K., Eames, C., Paku, L., Lay, M., Ayling, D., Hodges, D., . . . Martin, A. (2009). An exploration of the pedagogies employed to integrate knowledge in work-integrated learning in New Zealand higher education institutions (pp. 95). Wellington, New Zealand: Teaching and Learning Research Initiative.
- Coll, R. K., Eames, C., Zegwaard, K. E., & Hodges, D. (2002). How do we see ourselves: An Asia-Pacific regional perspective on cooperative education. In R. K. Coll (Ed.), *STERpapers* (pp. 49-56). Hamilton, New Zealand: The University of Waikato.
- Coll, R. K., & Zegwaard, K. E. (2011). The integration of knowledge in cooperative and work-integrated education programs. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 297-304). Lowell, MA: World Association for Cooperative Education.

- Cooper, L., Orrell, J., & Bowden, M. (2010). *Work integrated learning: A guide to effective practice*. New York, NY: Routledge.
- Crump, S., & Johnsson, M. C. (2011). Benefits of cooperative and work-integrated education for educational institutions. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research, and practice* (2nd ed., pp. 287-294). Lowell, MA: World Association for Cooperative Education.
- Dinan-Thompson, M., Lasen, M., & Hickey, R. (2010). The potential of e-Portfolio – enhancing graduate employability in a professional program [special issue]. *Asia-Pacific Journal of Cooperative Education*, 11(3), 93-102.
- Dressler, S., & Keeling, A. E. (2011). Benefits of cooperative and work-integrated education for students. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 261-275). Lowell, MA: World Association for Cooperative Education.
- Drysdale, M. T. B., Frost, N., & McBeath, M. L. (2015). How often do they change their minds and does work-integrated learning play a role? An examination of ‘major changers’ and career certainty in higher education [special issue]. *Asia-Pacific Journal of Cooperative Education*, 16(2), 145-152.
- Drysdale, M. T. B., & McBeath, M. (2014). Exploring hope, self-efficacy, procrastination, and study skills between cooperative and non-cooperative education students. *Asia-Pacific Journal of Cooperative Education*, 15(1), 69-79.
- Eames, C., & Cates, C. (2011). Theories of learning in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 41-52). Lowell, MA: World Association for Cooperative Education.
- Edgar, S., & Connaughton, J. (2014). Exploring the role and skill set of physiotherapy clinical educators in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 15(1), 29-36.
- Engestrom, Y. (1999). Activity theory and individual social transformation. In Y. Engestrom, R. Miettinen & R. L. Punamaki (Eds.), *Perspectives on activity theory*. New York, NY: Cambridge University Press.
- Engestrom, Y. (2014). *Learning by expanding: An activity-theoretical approach to developmental research* (2nd ed.). New York, NY: Cambridge University Press.
- Ferns, S., & Bosco, J. (2014). ePortfolios as evidence of standards and outcomes in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 15(3), 269-280.
- Ferns, S., & Zegwaard, K. E. (2014). Critical assessment issues in work-integrated learning [Special issue]. *Asia-Pacific Journal of Cooperative Education*, 15(3), 179-188.
- Fleming, J. (2015). Exploring stakeholders’ perspectives of the influences on student learning in cooperative education [special issue]. *Asia-Pacific Journal of Cooperative Education*, 16(2), 109-119.
- Fleming, J., & Hickey, C. (2013). Exploring cooperative education partnerships: A case study in sport tertiary education. *14*, 3(209-221).
- Gardner, P. D., & Bartkus, K. R. (2014). What’s in a name? A reference guide to work-education experiences. *Asia-Pacific Journal of Cooperative Education*, 15(1), 37-54.
- Garnett, J. (2012). Authentic work integrated learning. In L. Hunt & D. Chalmers (Eds.), *University teaching in focus* (pp. 164-179). Victoria, Australia: ACER Press.
- Gomez, S., Lush, D., & Clements, M. (2004). Work placements enhance the academic performance of bioscience undergraduates. *Journal of Vocational Education and Training*, 56(3), 373-385.
- Groenewald, T., Drysdale, M. T. B., Chiupka, C., & Johnston, N. (2011). Towards a definition and models of practice for cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 17-24). Lowell, MA: World Association for Cooperative Education.
- Hattie, J., Biggs, J., & Prudie, N. (1996). Effects of learning skills interventions on student learning: A meta-analysis *Review of Educational Research*, 66(2), 99-136.

- Hay, K., & Dale, M. (2014). Moving through Moodle: Using e-technology to enhance social work field education. *Asia-Pacific Journal of Cooperative Education*, 15(2), 119-128.
- Helyer, R., & Corkill, H. (2015). Flipping the academy: Is learning from outside the classroom turning the university inside out? [special issue]. *Asia-Pacific Journal of Cooperative Education*, 16(2), 121-135.
- Hodges, D. (2011). The assessment of learning in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 53-62). Lowell, MA: World Association for Cooperative Education.
- Howison, S., & Finger, G. (2010). Enhancing cooperative education placement through the use of learning management system functionalities: A case study of the Bachelor of Applied Management program *Asia-Pacific Journal of Cooperative Education*, 11(2), 47-56.
- Johnston, N. (2011). Curriculum and curricular orientations in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 305-311). Lowell, MA: World Association for Cooperative Education.
- Lucas, P., & Fleming, J. (2012). Reflection in sport and recreation cooperative education: Journals or blogs? *Asia-Pacific Journal of Cooperative Education*, 13(1), 55-64.
- Mandilaras, A. (2003). Industrial placement and degree performance: Evidence from a British higher institution. *International Review of Education Economics*, 3(1), 39-51.
- McDermott, K., & Gallagher, S. (2011). Integration of eportfolios into cooperative education: Lessons learnt. *Asia-Pacific Journal of Cooperative Education*, 12(2), 95-101.
- McRae, N. (2015). Exploring conditions for transformative learning in work-integrated education [special issue]. *Asia-Pacific Journal of Cooperative Education*, 16(2), 137-144.
- Miller, J. P., & Seller, W. (1990). *Curriculum perspectives and practice*. Mississauga, ON: Copp Clark Pitman.
- Oliver, B., & Goerke, V. (2007). Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating engaging learning experiences for the Net Generation. *Australasian Journal of Educational Technology*, 23(2), 171-189.
- Patrick, C.-J., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2009). The WIL [Work Integrated Learning] report: A national scoping study. The final report to the Australian Learning and Teaching Council (ALTC) (pp. 111). Brisbane, Australia: Queensland University of Technology.
- Peach, D., Ruinard, E., & Webb, F. (2014). Feedback on student performance in the workplace: The role of workplace supervisors. *Asia-Pacific Journal of Cooperative Education*, 15(3), 241-252.
- Pennaforte, A., & Pretti, T. J. (2015). Developing the conditions for co-op students' organizational commitment through cooperative education. *Asia-Pacific Journal of Cooperative Education*, 16(1), 39- 51.
- Reddan, G. (2013). To grade or not to grade: Student perceptions of the effects of grading a course in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 14(4), 223-232.
- Rowe, A., Mackaway, J., & Winchester-Seeto, T. (2012). 'But I thought you were doing that' – Clarifying the role of the host supervisor in experience-based learning. *Asia-Pacific Journal of Cooperative Education*, 13(2), 115-134.
- Rowe, P. M. (2015). Researchers' reflections on what is missing from work-integrated learning research [special issue]. *Asia-Pacific Journal of Cooperative Education*, 16(2), 101-107.
- Rubie-Davies, C., Hattie, J., & Hamilton, R. (2006). Expecting the best for students: Teacher expectations and academic outcomes. *British Journal of Educational Psychology*, 76, 429-444. doi: 10.1348/000709905X53589
- Sautelle, E., Bowles, T., Hattie, J., & Arifin, D. N. (2015). Personality, resilience, self-regulation and cognitive ability relevant to teacher selection. *Australian Journal of Teacher Education* 40(4), 54-71. doi: 10.14221/ajte.2015v40n4.4
- Seaton, M., Parker, P., Marsh, H., Craven, R. G., & Yeung, A. S. (2014). The reciprocal relations between self-concept, motivation and achievement: Juxtaposing academic self-concept and

- achievement goal orientations for mathematics success. *Educational Psychology*, 34(1), 49-72. doi: 10.1080/01443410.2013.825232
- Sibthorp, J., & Arthur-Banning, S. (2004). Developing life effectiveness through adventure education: The roles of participant expectations, perceptions of empowerment, and learning relevance. *Journal of Experiential Education* 27(1), 32-50.
- Tanaka, Y. (2015). *The economics of cooperative education: A practitioner's guide to the theoretical framework and empirical assessment of cooperative education*. Oxon, UK: Routledge.
- Tanaka, Y., & Carlson, K. (2012). An international comparison of the effect of work-integrated learning on academic performance: A statistical evaluation of WIL in Japan and Hong Kong. *Asia-Pacific Journal of Cooperative Education*, 13(2), 77-88.
- Trede, F. (2012). Role of work-integrated learning in developing professionalism and professional identity. *Asia-Pacific Journal of Cooperative Education*, 13(3), 159-167.
- Trede, F., Macklin, R., & Bridges, D. (2011). Professional identity development: A review of the higher education literature. *Studies in Higher Education*, 37(3), 365-384. doi: 10.1080/03075079.2010.521237
- Van Gyn, G., & Grove-White, E. (2011). Theories of learning in education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 31-39). Lowell, MA: World Association for Cooperative Education.
- Walkey, F. H., McClure, J., Meyer, L. H., & Weir, K. F. (2013). Low expectations equal no expectations: Aspirations, motivation, and achievement in secondary school. *Contemporary Educational Psychology*, 38(4), 306-315. doi: 10.1016/j.cedpsych.2013.06.004
- Waxman, H. C., Gray, J. P., & Padron, Y. N. (2003). *Review of research on educational resilience. Research report*. Santa Cruz, CA: Center for Research on Education, Diversity and Excellence.
- Wilson, J. W., & Lyons, E. H. (1961). *Work-study college programs: Appraisal and report of the study of cooperative education*. New York, NY: Harper & Brothers.
- Wilson, R. L. (1988). Research in cooperative education. *Journal of Cooperative Education*, 24(2-3), 77-89.
- Woodley, C., & Beattie, S. (2011). Communal reflections on the workplace: Locating learning for the legal professional. *Asia-Pacific Journal of Cooperative Education*, 12(1), 19-30.
- Yorke, M. (2005). Issues in the assessment of practice-based professional learning (pp. 57). Milton Keynes, UK: The Open University.
- Zegwaard, K. E. (2012). Publishing cooperative and work-integrated education literature: The Asia-Pacific Journal of Cooperative Education. *Asia-Pacific Journal of Cooperative Education*, 13(4), 181-193.
- Zegwaard, K. E., & Coll, R. K. (2011). Exploring some current issues for cooperative education. *Journal of Cooperative Education and Internships*, 45(2), 8-15.
- Zegwaard, K. E., & Hoskyn, K. (2015). A review of trends in research methods in cooperative education. In K. E. Zegwaard (Ed.), *New Zealand Association for Cooperative Education 2015 Conference Proceedings* (pp. 59-62). Wellington, New Zealand: New Zealand Association for Cooperative Education.
- Zegwaard, K. E., & McCurdy, S. (2014). The influence of work-integrated learning on motivation to undertake graduate studies *Asia-Pacific Journal of Cooperative Education*, 15(1), 13-28.



About the Journal

The Asia-Pacific Journal of Cooperative Education publishes peer-reviewed original research, topical issues, and best practice articles from throughout the world dealing with Cooperative Education (Co-op) and Work Integrated Learning/Education (WIL).

In this Journal, Co-op/WIL is defined as an educational approach that uses relevant work-based projects that form an integrated and assessed part of an academic program of study (e.g., work placements, internships, practicum). These programs should have clear linkages with, or add to, the knowledge and skill base of the academic program. These programs can be described by a variety of names, such as cooperative and work-integrated education, work-based learning, workplace learning, professional training, industry-based learning, engaged industry learning, career and technical education, internships, experiential education, experiential learning, vocational education and training, fieldwork education, and service learning.

The Journal's main aim is to allow specialists working in these areas to disseminate their findings and share their knowledge for the benefit of institutions, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that will lead to the advancement of effective practices, development of further understanding of co-op/WIL, and promote further research.

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Before submitting a manuscript, please ensure that the 'instructions for authors' has been followed (www.apjce.org/instructions-for-authors). All manuscripts are to be submitted for blind review directly to the Editor-in-Chief (editor@apjce.org) by way of email attachment. All submissions of manuscripts must be in Microsoft Word format, with manuscript word counts between 3,000 and 5,000 words (excluding references).

All manuscripts, if deemed relevant to the Journal's audience, will be double-blind reviewed by two or more reviewers. Manuscripts submitted to the Journal with authors names included will have the authors' names removed by the Editor-in-Chief before being reviewed to ensure anonymity.

Typically, authors receive the reviewers' comments about 1.5 months after the submission of the manuscript. The Journal uses a constructive process for review and preparation of the manuscript, and encourages its reviewers to give supportive and extensive feedback on the requirements for improving the manuscript as well as guidance on how to make the amendments.

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.

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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.

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