

Developing global standards framework and quality integrated models for cooperative and work-integrated education programs

BURATIN KHAMPIRAT

Suranaree University of Technology, Nakhon Ratchasima, Thailand

NORAH McRAE ¹

University of Victoria, Victoria, Canada

Cooperative and Work-integrated Education (CWIE) programs have been widely accepted as educational programs that can effectively connect what students are learning to the world of work through placements. Because a global quality standards framework could be a very valuable resource and guide to establishing, developing, and accrediting quality CWIE programs, this study was aiming at the development of a global standards framework, implementation strategy and a quality evaluation model for CWIE programs. 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. Content analysis and text data mining methods were employed to establish the evaluation model. The authors believed that this standards framework and a well-tested quality evaluation model could act as a valuable resource and guide, as well as a tool, for CWIE practitioners and administrators across all disciplines on a global scale. (*Asia-Pacific Journal of Cooperative Education*, 2016, 17(4), 349-362)

Keywords: Standards framework, cooperative education, work-integrated learning, quality evaluation model

Cooperative and Work-Integrated Education (CWIE) programs are educational programs that connect what students are learning to the world of work through placements that can take the form of cooperative education work-terms, internships, practica, research terms and service learning among others. CWIE programs across the globe are concerned with providing quality programs and with assuring learning within this model of experiential education where the site of learning is unbounded from traditional classroom settings. 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. A literature review showed that many research publications in CWIE are concerned with students' readiness for the workplace, reflection on program, service quality or placement coordinators' perceptions through the assessment. However, there are restricted number of research papers dealing with a quality standards framework, causal and measurement models of effectiveness for CWIE programs.

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 for the field of CWIE. It was also agreed that a global quality standards framework and a quality evaluation model for CWIE programs could be a very valuable resource and guide, as well as a tool, 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). In

¹ Corresponding editor: Norah McRae, nmcrae@uvic.ca

addition, in this work, to provide appropriate tools for the development and evaluation of CWIE programs, integrated and measurement models for evaluating and measuring the effectiveness of CWIE programs were proposed based on activity theory, causal (cause and effect) model and multilevel measurement modelling approach. These models were aiming at understanding the complex nature of the CWIE system and at further studies which could be conducted in participating countries (Heck & Thomas, 2009; Khampirat & Bowarnkitiwong, 2005).

OBJECTIVES

The main objectives of this study were:

- 1) To develop a global standards framework and implementation strategy for CWIE programs using activity theory from the perspectives of practitioners and researchers of CWIE programs in Thailand, South Africa, Namibia and Canada.
- 2) To purpose causal and multilevel measurement models for assessing and forecasting effectiveness and efficiency of CWIE programs.

LITERATURE REVIEW

Standard Framework

To increase performance and demonstrate accountability and become excellent in all of the core missions, organizations have to establish and develop a clear standards framework that is known to every unit in the organization. According to International Professional Practices Framework (IPPF, 2012), standards are principles-focused, mandatory requirements consisting of two important aspects; (a) statements of basic requirements for the professional practice of internal auditing and for evaluating the effectiveness of performance, which are internationally applicable at organizational and individual levels and; (b) interpretations, which clarify terms or concepts within the statements. Standards are generally structured and presented in the form of sections on values and commitments followed by list of activities (Lester, 2014). In general, awareness and understanding of standards framework vary with the practical needs of organizations (Raffe, 2009). Because organizations need to know what they are performing and promoting through different units, the structure of standards framework shows what organizations need to do to be effective and efficient in their roles and suggests how their roles support the organizational vision, goals and strategies in the future. Standards frameworks, therefore, play an important role in planning and improvement of processes and operations in organizations towards sustainable success.

Literature survey showed that quality standards frameworks and improvement programs in organizations can be achieved through a wide range of models and techniques. Theories and models which have provided foundations for construction of quality standards framework and improvement program are for example, the Deming Cycle or PDCA model (Plan, Do, Check, Act) (Aguayo, 1991); CIPP model (Stufflebeam & Shinkfield, 2007); SIPOC diagram (suppliers, inputs, process, outputs, and customers) (Simons, 2015); ADLI Process Evaluation Factors (approach, deployment, learning, and integration) (Radziwill & Mitchell, 2010).

Establishing standards frameworks for professional development has been the topic of interest and extensively discussed since the early 1990s, in different higher education (HE) contexts and professional organizations (Broad & Evans, 2006; Collins, Kelly, Murdoch,

Raffe, & Murph, 2009). Professional organizations all over the world have created their own standards framework to ensure quality service, ethics and accountability, as well as enhancing progression pathways. For example, the Higher Education Academy (HEA, 2011, p.2) has developed UK Professional Standards Framework for teaching and learning which consists of areas of activity, core knowledge, and professional values.

Effectiveness Measurement Model

Although there is a lack of quality standards framework and measurement models that are systematically and holistically developed and tested for CWIE programs, a measurement model for evaluating quality of work-integrated learning curricula was suggested by Smith (2012). In this work, the quality of work-integrated learning curricula is measured by five dimensions, namely; authenticity, integrated learning supports (both at university and workplace), alignment (of teaching and learning activities and assessments with integrative learning outcomes), supervisor access, and induction/preparation processes. A latent construct measurement model was proposed and validated using empirical data consisting of a number of Australian and UK students. It was concluded based on the analysis of the identified dimensions that the ways that work-integrated learning courses or subjects are formulated determine the quality of such courses.

Thus, CWIE need a global standard framework in order to achieve the CWIE's objectives and desired outcomes, by demonstrating a matrix relationship with its activity-based standards, a set of benchmarks, and for ongoing development (Lester, 2014).

Activity Theory

Activity theory (also known as socio-cultural or cultural-historical activity theory), an evolution of the work of Vygotsky (Roth & Lee, 2007), 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).

Engeström identified a system with seven facets within which this learning occurs. The first facet is the overall activity of interest, 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 second facet, the subject, represents those who are carrying out the activity such as the student and the student's supervisor. The other facets, or mediators, within the system are: tools, rules, community and division of labor. Tools enable the subject to carry out the activity and as such 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 influence the performance of the activity (Marken, 2006). Division of labor refers to responsibilities for carrying out the activity (Marken, 2006). The community where the activity occurs encompasses the socio-cultural context. Finally, the outcome refers to the desired outcome from the activity (Marken, 2006).

Engeström's activity theory was considered to be a useful foundation upon which 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 is appropriate 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 work-integrated learning 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.

RESEARCH METHOD

Developing a Global CWIE Standards Framework

The Association of College and Research Libraries (ACRL, 2016) proposed 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 that together create a conceptual model for practitioners to use as a guide.

Design and participants: In order to obtain multiple perspectives, the researchers decided to hold a focus group to allow for a cross-sectional qualitative study of the global practitioners and researchers' perspectives. The focus group consisted of 6 participants, across multiple disciplines, 3 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 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. Due to the nature of this study with participants self-selecting to become involved in this preliminary phase, no ethics were required.

Data analysis: 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.

Developing Causal and Multilevel Measurement Models

In this work, to define and develop causal (cause and effect) and multilevel measurement models for CWIE programs, a range of secondary sources relevant to the evaluations of performance in HEs was obtained based on a literature survey, using search keywords related to the topic and scope of this work. After screening of the reference lists and relevant systematic reviews, content analysis and text data mining methods which are parts of qualitative research were employed as two method approaches to establish the causal and measurement models (Khampirat & Bowarnkitiwong, 2005).

The process to develop a quality standards framework, causal and multilevel measurement models in the present and future studies is summarized in Figure 1.

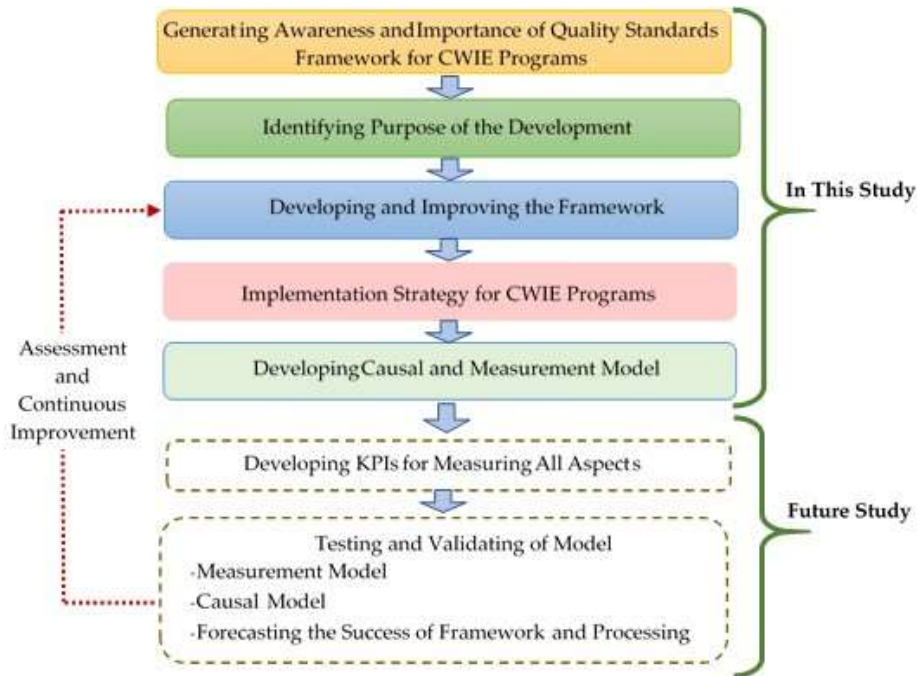


FIGURE 1: Process to develop global standards framework, causal and measurement models for CWIE programs.

RESULTS

Global CWIE Standards Framework

The result of the focus group study was the development of a quality standards framework matrix (Figure 2) 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 Standards 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.

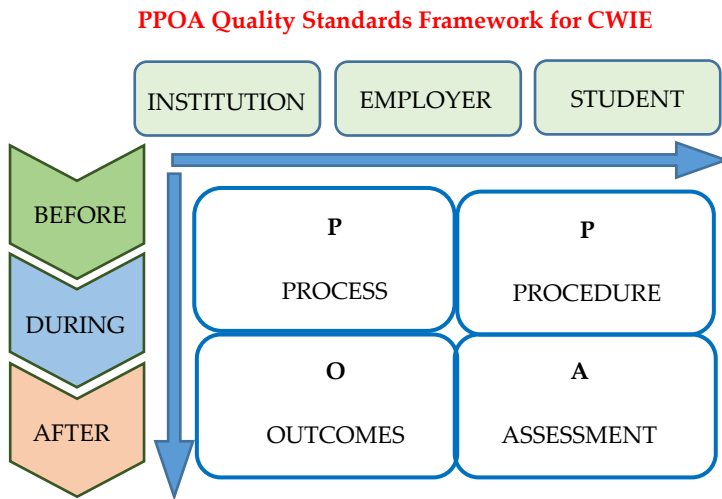


FIGURE 2: Matrix representation of PPOA quality standards framework.

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 in Appendix A (Tables 1-3). The point being that this framework is not prescriptive; rather it provides a method for any CWIE programs to examine all dimensions of their program towards an assurance of quality.

Causal Model for Assessing and Forecasting Effectiveness of CWIE Programs

In order to evaluate the effectiveness and forecast the quality of CWIE programs, an integrated model to support systematic evaluation of the programs was constructed based on the proposed quality standards framework, theories for evaluating the performance of higher educational organization, Baldrige excellence framework (NIST, 2009), Logic and CIPP models (Stufflebeam & Shinkfield, 2007), researchers’ experience in management of CWIE programs, and selected research papers on evaluation and developing programs (Khampirat, 2011, 2015, 2016; McLaughlin & Jordan, 1999; McRae, 2015). The developed integrated model in Figure 3 illustrates cause and effect relationships which can be used to estimate the influence of the context (in Zone A) and the process factors (in Zone B) on the effectiveness and efficiency of CWIE programs (output in Zone C), which leads eventually to the quality of graduates and reputation of HE institutions (outcomes and impact in Zone D).

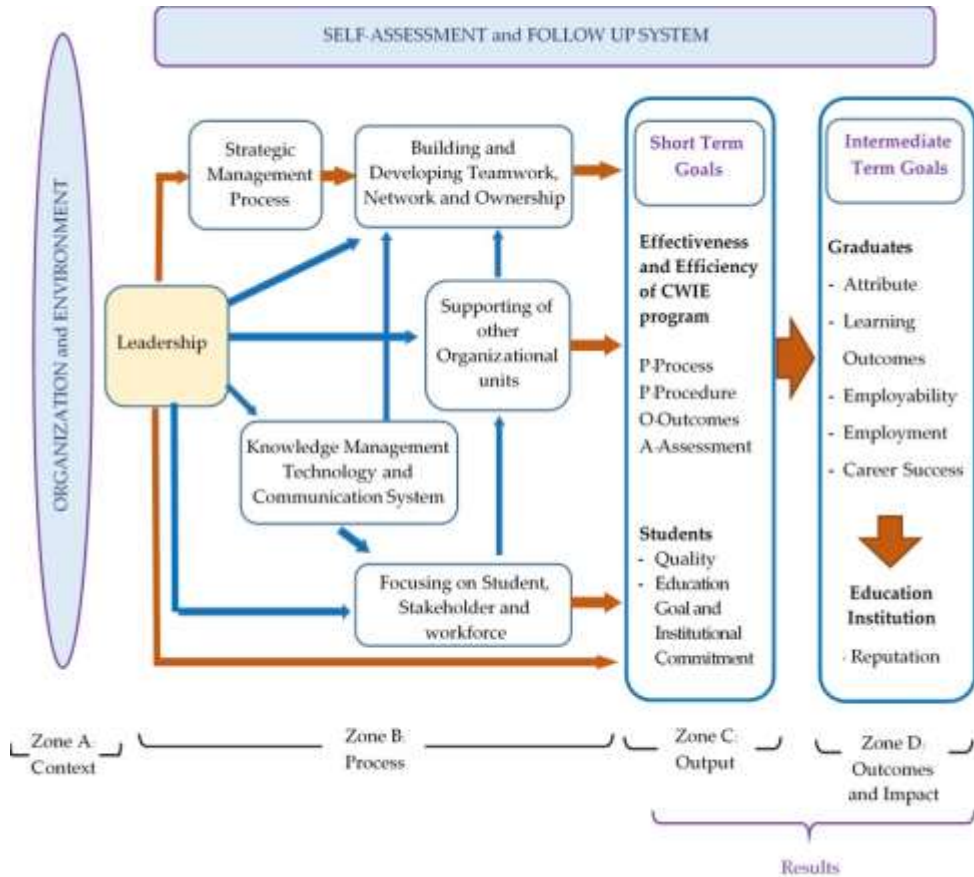


FIGURE 3: Proposed integrated causal model for assessing and forecasting effectiveness and efficiency of CWIE programs.

The system perspective of the proposed causal integrated model in Figure 3 consists of various linkages among key dimensions and aligning the student’s quality and institutional reputation. In Figure 3, the dimensions in Zones B, C, and D suggest guidelines to improve the levels of the results and quality of CWIE programs, both in short and intermediate terms. Six key dimensions in Zone B (process) include: (1) Leadership, (2) Strategic Management Process, (3) Building and Developing Teamwork, Network and Ownership, (4) Supporting of other Organizational units, (5) Knowledge Management Technology and Communication System and (6) Focusing on Student, Stakeholder and Workforce. It should be stressed that in this causal model, self-assessment and follow up systems must be established as a tool for regular monitoring of the performance and effectiveness of CWIE programs.

Multilevel Measurement Model for CWIE programs

One of the most important questions in the construction of quality standards framework is how to measure its effectiveness as a complex system. Literature review suggested that effectiveness should be assessed by all stakeholders because the multiple perspectives concept of assessment can lead to strengthening and support the quality of programs/organizations. Because the effectiveness of a CWIE program is anticipated to

result from complex relationships between the characteristics of institution, employer supervisor, student, organizational and national environments, where individual performance receive influence from organizational or institutional effectiveness/policy, the socio-cultural context was used as a common framework in this study. Therefore, according to the multiple-level nature of CWIE program, a multilevel measurement model was selected to study the associations “within” (employer supervisor and student) and “between” (institution) levels.

Figure 4 shows the proposed multilevel measurement model for CWIE programs, measured by four categories: Process (P), Procedures (P), Outcomes (O) and Assessment (A). The measurement model possesses (evaluates) two principal levels, in which the first level reflects (measures) the effectiveness of administration at the institutional level, whereas the second level evaluates the performance of employer supervisor and student. Similar to the integrated model in Figure 3, the proposed multilevel measurement model can validate the indices using multilevel confirmatory factor analysis (MCFA), and test invariance of the model across countries by multi-group analysis as well.

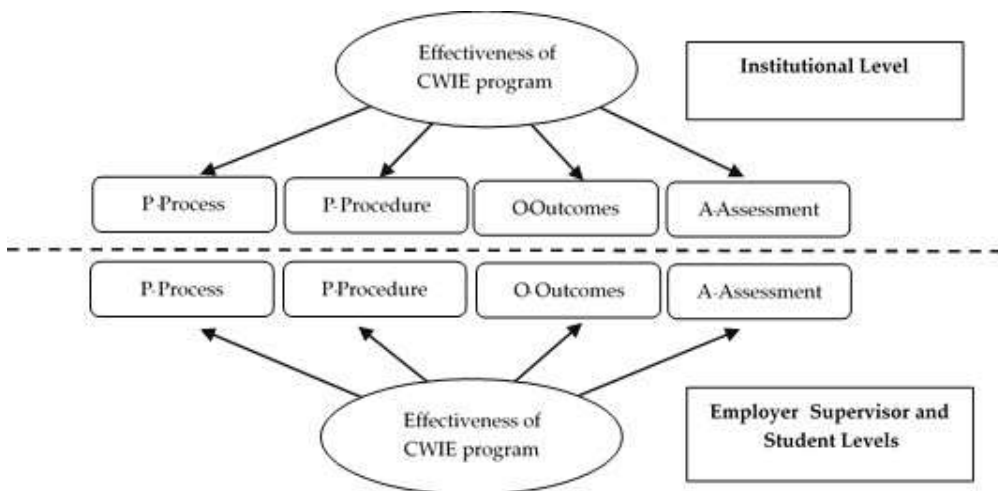


FIGURE 4: Multilevel measurement model for effectiveness of CWIE programs.

DISCUSSION

This framework was developed through bringing together the expertise of educators from Thailand, South Africa, Canada and Namibia. The architecture of the PPOA model was designed by the South African participant in a matrix format that facilitated an ease of connecting categories and stakeholder 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 placement. There are a wide range of CWIE programs within the four countries represented in this project and the standards framework design applied to the varied programs within the four countries. Based on this sample of four countries, it was felt that 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 framework

model could ensure that operational components of CWIE programs are properly assessed, thereby assisting institutions to determine the success of their respective CWIE programs making quality assurance a real possibility. Should this framework be adopted, the potential for a global accreditation of CWIE programs could be realized.

Based on the proposed CWIE standards framework and previous research/experience in evaluation of effectiveness of programs/organizations, a causal model for evaluation of effectiveness, and a multilevel measurement model were proposed for assessing and forecasting effectiveness and efficiency of CWIE programs. The authors believed that after testing validity within and across participating countries, these models can serve as valuable tools that help practitioners and administrators explore and identify strengths, weaknesses, opportunities, and threats (SWOT) of their CWIE programs. And especially through the dimensions in these models, they can improve the quality of their CWIE programs by enhancing the dimensions that are critical and possessing strong influence to the quality of CWIE programs. In addition, because the multilevel measurement model reveals direct and indirect effects among sets of dimensions, cultural differences in participating countries that could affect quality of CWIE programs can be studied in detail.

CONCLUSIONS

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. This framework now needs to be used with other forms of CWIE to test its validity as a tool for quality assurance. Should the framework prove to be a useful tool for quality assurance, the next step would be to determine its usefulness as a framework for global accreditation of CWIE programs. In addition, because quality evaluation and the trend forecasting are important to help build successful CWIE programs, HEIs can use the proposed integrated causal model and multilevel measurement model to evaluate and predict the effectiveness and efficiency of CWIE programs in the future.

POLICY RECOMMENDATIONS AND DIRECTIONS FOR FUTURE RESEARCH

- 1) Variation of standards framework for CWIE across countries: Because there are several possible reasons for variation such as institutional factors, learning outcomes, educational and global economic systems, technological innovation, etc., the authors would like to recommend to align CWIE standards framework more closely among countries or to standardize the CWIE standards framework across countries. These can be beneficial for institute, employer supervisor and student, for example, students working and moving across regions would encounter similar expectations in CWIE.
- 2) Creating and raising awareness of the CWIE standards framework: Since standards have strong influence on HEIs, and standardization will continue to play an important role in future globalization (Purcell, 2008a), promoting, creating and raising awareness of all parties such as for institute (every faculty member, administrator, and support staff), employers and students on the value of CWIE standards are crucial and have strategic value.

- 3) Focusing on improving student learning outcomes and the linkages between educational institutions, employers and society: CWIE standards framework should focus on improving student learning outcomes that cover both soft and hard skills. Moreover, developing effective relationships between employer, faculty and educational institution are the most important issue for the success of CWIE standards.
- 4) Developing key performance indicators (KPIs) and validating the proposed causal and multilevel measurement models: Because a global CWIE standards framework has already been established, next step is to devise KPIs to measure each aspect in the matrix and study the relationship between cause and effect factors on standards. In addition, to ensure validity and invariance of the measurement model, the proposed multilevel measurement model should be validated using empirical data within countries and across countries by multi-group analysis in SEM.
- 5) Policy making for future trends: Because international competition will be the driving force in the creation of standards (Purcell, 2008b), to assist HEIs in enhancing their standards development (Khampirat, 2015), future research should focus on policies and process of standardization and implementation strategy for future trends using, for example, the SWOT analysis.

REFERENCES

- Aguayo, R. (1991). *Dr. Deming: The American who taught the Japanese about quality*. New York: Simon and Schuster.
- Association of College and Research Libraries (ACRL). (2016). *Framework for information literacy education*. Chicago, IL: Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/Framework_IL.HE.pdf
- Broad, K., & Evans, M. (2006). *A review of literature on professional development content and delivery modes for experienced teachers*. Toronto, Ontario: The Ontario Ministry of Education.
- Collins, T., Kelly, F., Murdoch, H., Raffae, D., & Murph, A. (2009). *Framework implementation and impact study*. Retrieved from <http://www.qqi.ie/Publications/Framework%20Implementation%20and%20Impact%20Study.pdf>
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Eames, C., & Cates, C. (2011). Theories of learning in cooperative education. In R. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education* (2nd ed, pp. 41-52). Lowell, MA: World Association for Cooperative Education, Inc.
- Engeström, Y. (1987). *Learning by expanding*. Helsinki, Finland: Orienta-Konsultit.
- Engeström, Y. (2009). The future of activity theory: A rough draft. In A. Sannino, H. Daniels & K. Gutiérrez (Eds.), *Learning and expanding with activity theory* (pp. 303-328). New York, USA: Cambridge University Press.
- Heck, R. H., & Thomas, S. L. (2009). *An introduction to multilevel modeling techniques* (2nd ed.). New York, NY: Routledge.
- Higher Education Academy (HEA) (2011). *The UK professional standards framework for teaching and supporting learning in higher education*. Heslington, York: HEA.
- International Professional Practices Framework (IPPF). (2012). *International standards for the professional practice of internal auditing (standards)*. FL. USA: The Institute of Internal Auditors.
- Khampirat, B. (2011). *Analysis of the SUT profile for success foresight*. Nakhon Ratchasima, Thailand: Suranaree University of Technology.
- Khampirat, B. (2015, September). *Staffs' perceptions toward the quality of strategic planning: Empirical case of an autonomous university in Thailand*. Paper presented at the 2015 European Conference on Educational Research (ECER), Corvinus University of Budapest, Hungary.

- Khampirat, B. (2016, August). *Assessing employers' expectation and satisfaction toward competencies of new graduates in Thailand*. Paper presented at the 2016 European Conference on Educational Research (ECER), University College Dublin, Ireland.
- Khampirat, B., & Bowarnkitiwong, S. (2005, April). *Evaluation of effective academic deanship in the context of Thai higher education: A multilevel model*. Paper presented at the 2005 Annual Meeting of the American Educational Research Association (AERA), Montreal, Canada.
- Lester, S. (2014). Professional competence standards and frameworks in the United Kingdom. *Assessment and Evaluation in Higher Education*, 39(1), 38-52. DOI 10.1080/02602938.2013.792106
- Leont'ev, A. (1978). *Activity, consciousness, and personality*. Englewood Cliffs, NJ: Prentice-Hall.
- McLaughlin, J. A., & Jordan, G. B. (1999). Logic models: A tool for telling your program's performance story. *Evaluation and Program Planning*, 22(1), 65-72.
- Marken, J. (2006). An application of activity theory: A case of global training. *Performance Improvement Quarterly*, 19(2), 27-50.
- McRae, N. (2015). Exploring conditions for transformative learning in work-integrated education. *Asia-Pacific Journal of Cooperative Education*, 16(2), 137-144.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education* (2nd ed.). San Francisco, CA: Jossey-Bass.
- National Institute of Standards and Technology (NIST), United States Department of Commerce. (2009). *2009-2010 Baldrige National quality program: Education criteria for performance excellence*. Retrieved from www.baldrige.nist.gov/
- Purcell, D. E. (2008a). *Education is the key to the 21st century*. Retrieved from http://www.nist.gov/standardsgov/upload/Purcell_CUA_SupportingDocs_Education-is-the-Key-to-the-21st-Century.pdf
- Purcell, D. E. (2008b). *The strategic value of standards education*. Retrieved from <http://www.strategicstandards.com/files/Articles/TheStrategicValueofStandardsEducation.pdf>
- Radziwill, N. M., & Mitchell, L. (2010, June). *Using the Baldrige Criteria for observatory strategic and operations planning*. Paper presented at the SPIE Observatory Operations: Strategies, Processes and Systems III, San Diego, CA.
- Raffe, D. (2009, September). *National qualifications frameworks in Ireland and Scotland: A comparative analysis*. Paper presented at the European Conference on Educational Research, Vienna, Austria.
- Roth, W. M., & Lee, Y. J. (2007). "Vygotsky's neglected legacy": Cultural-historical activity theory. *Review of Educational Research*, 77(2), 186-232.
- Simons, N. (2015). *Lean Six Sigma and the SIPOC tool for higher education*. Novi, Michigan: Performance Innovation LLC.
- Smith, C. (2012). Evaluating the quality of work-integrated learning curricula: a comprehensive framework. *Higher Education Research & Development*, 31(2), 247-262.
- Stufflebeam, D. L., & Shinkfield, A. J. (2007). *Evaluation theory, models, and applications*. San Francisco: Jossey-Bass.
- Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: MIT Press.
- Weber, S. (2003). Boundary-crossing in the context of intercultural learning. In T. Tuomi-Gröhn & Y. Engeström (Eds.), *Between school and work: New perspectives on transfer and boundary-crossing* (pp. 157-177). Amsterdam, Netherlands: Elsevier Science Ltd.
- Yin, R. (2003). *Case study research: Design and methods* (3rd ed.). London, UK: Sage.

APPENDIX A: PPOA QUALITY STANDARDS FRAMEWORK FOR CWIE (CANADIAN COOPERATIVE EDUCATION PROGRAM EXAMPLE)

TABLE 1: Standard framework for *before* the placement

		INSTITUTION		EMPLOYER		STUDENT	
BEFORE	Process (P)	Preparing student for work term		P	Preparing workplace for student's arrival	P	Being ready for transitioning to the workplace.
	Procedure (P)	<p>Ensures student is eligible and qualified for the work term</p> <p>Provides training that covers topics such as workplace culture, learning objectives, assessment, and reflection.</p> <p>Logistical support for student travel, risk management, housing, learning accommodations.</p>		P	Clarifying job duties, informing work team, arranging for resources (space, equipment, training etc.),	P	<p>Attend institutional training.</p> <p>Complete institutional requirements prior to the work term, such as waivers of liability, codes of conduct, working visas, registration, payment of fees</p> <p>Makes required arrangements for travel to workplace, dress code, housing, personal arrangements.</p>
	Outcome (O)	Institution has met obligations to both student and employer to ensure that student is qualified and adequately prepared to begin the job.		O	Workplace is fully able to welcome and engage student	O	Student is ready to engage in the workplace on day one.
	Assessment (A)	Student transitions to workplace smoothly and successfully.		A	Effective orientation, student quickly able to start contributing, employer maximizes value from having student.	A	Student effectively transitions to workplace, understands job requirements, becomes quickly integrated with team, able to access required resources.

TABLE 2: Standard framework for *during* the placement

INSTITUTION		EMPLOYER		STUDENT		
DURING	Process (P)	Supporting student during work term and monitoring progress	P	Supporting student learning and work accomplishment during work term	P	Student engages effectively and in a positive manner during work term.
	Procedure (P)	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	P	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.	P	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 (O)	Institutional staff are fully aware of student workplace activities and progress throughout term Institution can easily connect with students and supervisors when needed.	O	Supervisor's expectations of student performance and learning are being met throughout term. Supervisor is clear about expectations of Institution.	O	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 (A)	Institutional reporting is accurate and complete regarding student work conditions, student learning progress and supervisor expectations.	A	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.	A	Student provides positive rating of supervisor support, job requirements and workplace conditions. Student provides positive rating of institutional support. Student learning progresses.

TABLE 3: Standard framework for *after* the placement

		INSTITUTION		EMPLOYER		STUDENT	
AFTER	Process (P)	Institution provides final assessment of student. Institution debriefs student. Institution thanks supervisor and explores future work term possibilities for students.	P	Supervisor provides final assessment of student learning and of student performance.	P	Upon completion of required work term assignment student provides final assessment of their learning.	
	Procedure (P)	Final assessment including student reflection. Conduct student debriefing upon completion of work term. Thank you communications to supervisor	P	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.	P	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 (O)	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.	O	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.	O	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 (A)	Provision to student of credit, grade or other acknowledgement of successful completion of work term. Institutional collaboration with supervisor organization continues and expands.	A	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.	A	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).	

This APJCE Special Issue was sponsored by



Papers stem from presentations¹

delivered at the

**2nd International Research Symposium on
Cooperative and Work-Integrated Education**

¹ Papers included in this APJCE Special Issue are based on selected manuscripts from the research symposium's refereed proceedings. All manuscripts were expanded and modified to meet APJCE requirements, double-blind reviewed by the APJCE editorial board, and amended before being accepted to be published in APJCE.



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.

Submitting Manuscripts

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.

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.



EDITORIAL BOARD

Editor-in-Chief

Dr. Karsten Zegwaard

University of Waikato, New Zealand

Copy Editor

Yvonne Milbank

Asia-Pacific Journal of Cooperative Education

Editorial Board Members

Ms. Diana Ayling

Unitec, New Zealand

Mr. Matthew Campbell

Queensland Institute of Business and Technology, Australia

Dr. Sarojni Choy

Griffith University, Australia

Prof. Richard K. Coll

University of South Pacific, Fiji

Prof. Rick Cummings

Murdoch University, Australia

Prof. Leigh Deves

Charles Darwin University, Australia

Dr. Maureen Drysdale

University of Waterloo, Canada

Dr. Chris Eames

University of Waikato, New Zealand

Mrs. Sonia Ferns

Curtin University, Australia

Dr. Jenny Fleming

Auckland University of Technology, New Zealand

Dr. Phil Gardner

Michigan State University

Dr. Thomas Groenewald

University of South Africa, South Africa

Dr. Kathryn Hays

Massey University, New Zealand

Prof. Joy Higgs

Charles Sturt University, Australia

Ms. Katharine Hoskyn

Auckland University of Technology, New Zealand

Dr. Sharleen Howison

Otago Polytechnic, New Zealand

Dr. Denise Jackson

Edith Cowan University, Australia

Dr. Nancy Johnston

Simon Fraser University, Canada

Dr. Mark Lay

University of Waikato, New Zealand

Assoc. Prof. Andy Martin

Massey University, New Zealand

Ms. Susan McCurdy

University of Waikato, New Zealand

Dr. Norah McRae

University of Victoria, Canada

Dr. Keri Moore

Southern Cross University, Australia

Prof. Beverly Oliver

Deakin University, Australia

Assoc. Prof. Janice Orrell

Flinders University, Australia

Dr. Deborah Peach

Queensland University of Technology, Australia

Mrs. Judene Pretti

Waterloo University, Canada

Assoc. Prof. Philip Rose

Hannam University, South Korea

Dr. David Skelton

Eastern Institute of Technology, New Zealand

Prof. Heather Smigiel

Flinders University, Australia

Dr. Calvin Smith

Brisbane Workplace Mediations, Australia

Prof. Neil Taylor

University of New England, Australia

Ms. Susanne Taylor

University of Johannesburg, South Africa

Assoc. Prof. Franziska Trede

Charles Sturt University, Australia

Ms. Genevieve Watson

Elysium Associates Pty, Australia

Prof. Neil I. Ward

University of Surrey, United Kingdom

Dr. Nick Wempe

Taratahi Agricultural Training Centre, New Zealand

Dr. Marius L. Wessels

Tshwane University of Technology, South Africa

Dr. Theresa Winchester-Seeto

Charles Sturt University, Australia