# Exploring some current issues for Cooperative Education

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## Abstract

As cooperative education (co-op) has recently surpassed 100 years, it is worthwhile to reflect on the challenges co-op faced and responded to, as co-op has matured and new challenges developed. Much concern was raised in the past of a lack of accepted theoretical learning framework for learning in co-op, however, there has been advances made since that attempt to capture the complexities of what is co-op. Over the last so many years, diverse range of terms has developed, along with multiple definitions, to loosely describe what may (or perhaps may not) be co-op, possibly a reflection of the diversity of practices of co-op across the disciplines and attempts to be inclusive. Lastly, we would argue that even though co-op often claims to have integration of knowledge between the workplace and educational institutions, the claims are often not well supported, how integration may occur seems to be poorly understood, and here still lays a challenge for the co-op community.

**Keywords:** Research, work-integrated education, terminologies, integration.

## Introduction

As cooperative education has entered the 21st century, it is worthwhile to reflect how the field has developed, grown, and matured. Literature discussing the early formative years of co-op, particularly in the US, are well explored by Sovilla and Varty (2011, and citations within). These authors go on to describe how Herman Schneider in 1906 at the University of Cincinnati launched the first co-op program, no doubt drawing upon earlier work experience models such as apprenticeships, mentorships, etc, to develop his co-op model originally applied to his engineering students. With the aim of bridging the gap between theory and practice, on-campus and off-campus learning, it was well timed with the US industrial expansion. The growth of co-op occurred quickly in the US and, under a variety of names but essentially holding onto the same core values, spread internationally. Today co-op presents itself well established internationally and across a diverse range of disciplines. Of recent years, much advancement in research and drawing together a comprehensive body of literature has occurred, as well as some new challenges not present in the earlier years of co-op. This paper will explore the state of our literature and research, acceptance and inclusivity of co-op, and identify that work is still required in areas such as integration.

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## Maturation of the literature

Bartkus and Stull (1997) described the co-op literature as being sketchy, limited, and uncertain, with a focus predominantly on program development and the practice of co-op, essentially confirming views held by Wilson (1988) ten years earlier. However, Bartkus and Higgs (2011), giving an objective overview on research in co-op, noted that the state of the co-op literature is now stronger than when assessed in 2004 (Bartkus & Stull, 2004), with a greater focus on theoretical framework development. It is our assessment also that co-op has matured considerably over the last decade or so, not only in development of its theoretical underpinnings, but also how co-op advances and disseminates new knowl edge. With that advancement has come a growing body of research literature readily available for co-op, the setting up of research centres focussed on advancing co-op (e.g., WACE's Institute for Global and Experiential Education, and institutional level co-op research units and centres).

A sure measure of maturation of co-op is both the quantity and quality of readily available literature, and that the research realm now is substantive enough to allow two central co-op journals serving the co-op community; the J*ournal of Cooperative Education and Internships* (JCEI; **www.ceiainc.org/journal.asp**) and the A*sia-Pacific Journal of Cooperative Education* (APJCE; **www.apjce.org**). Both these journals have an extensive body of freely available, research-informed literature. JCEI began in 1964 and has a long history of literature available. The recent challenges this journal faced has prompted a transition into new structure and becoming an open access journal, and looks to provide a promising future. The APJCE first publication run was in 2000, and now has more than 130 articles with a steadily increasing number per year. APJCE originally began with the intention, as the name suggests, focussing on the Asia-Pacific area, and encouraging developing researchers into publishing. However, the last five years the journal has grown well beyond the Asia-Pacific region and now is a truly international journal.

In addition to the two central co-op journals, several relevant journals with a strong workplace learning focus, exist serving fields on the periphery of the co-op sphere, namely *Journal of Workplace Learning*, *Reflective Practice*, *Journal of Vocational Education and Training*, and *Journal of Vocational Education Research*. Furthermore, increasingly co-op orientated literature is appearing in discipline specific educational journals, for example; Coll and Zegwaard (2006) in *Research in Science and Technological Education*, Eames and Bell (2005) in *Canadian Journal of Science, Mathematics and Technology Education*, Schafer and Castellano (2005) in *Journal of Criminal Justice Education*, Tully, Kropf and Price (1993) in *Journal of Social Work Education*, and Zegwaard and Coll (2011) in *Science Education International*. Bartkus (2007) and Coll and Kalnins (2009) go on to list more than 100 other journals, with examples, containing co-op focussed literature.

Recently several significant publications drawing together established literature and focussing on best practice has become available. For example, the much expanded second edition of the *International Handbook for Cooperative and Work-integrated Education* (Coll & Zegwaard, 2011b), which presents 42 chapters giving a comprehensive overview of the

co-op literature, learning theories, common models of practices in a range of disciplines, and topical issues currently pertinent to co-op. The *Handbook for Research in Cooperative Education and Internships* (Linn, Howard, & Miller, 2004) still serves as a valuable resource to co-op researchers, and recently commissioned reports on modelling best practice by Orrell (2011), Winberg et al. (2011) and by Martin and Hughes (2011a, 2011b, 2011c) and Martin, Rees and Edwards (2011) also make significant contribution to the best practice of co-op. Two national associations have undertaken national scoping studies which shed informative light on current practice (New Zealand: Coll et al., 2009; Australia: Patrick et al., 2009), noting that there is great diversity of practice, however, little in the way of integration nor structures to facilitate reflective learning. Several co-op association (e.g., WACE, NZACE, ACEN) also produce refereed proceedings from their annual conferences. We would argue that conference proceedings should be given greater prominence and accessibility than currently, and with appropriate refereeing and editing will serve as a valuable resource of information of current topical works that may not become journal articles.

## Further research in cooperative education

There often is call for further research in co-op and one we would certainly echo. However, we need to recognize that over the last 25 years we have built up this comprehensive body of research-informed literature and advanced our understanding of co-op. The breadth of this is observed in the second edition of the International Handbook, and confirmed by a quick glance at the growth of APJCE, JCEI, and the journals on the periphery of the co-op realm. The amount of literature cited in the chapters of the Handbook, much of which makes citations to research from various sources beyond co-op, is impressive (cf., Baker, Caldicott, & Spowart, 2011; Bartkus & Higgs, 2011; Dressler & Keeling, 2011; Eames & Cates, 2011). Both the commissioned reviews from Bartkus (2007) and Coll and Kalnins (2009) claim that recent research in co-op now has a solid theoretical base. We suggest that the co-op community needs to reflect on these works and develop a greater shared understanding of the state of our research background. A comprehensive shared understanding across the co-op community will avoid revisiting research and discussion around issues where we already have established understanding, and instead move research direction to new areas and to new levels. The 2010 and 2011 conferences held by WACE and ACEN included helpful research roundtables to drive and focus a collaborative research direction. The broad areas we see as important to focus research on are student learning, assessment of student learning, and the nature of the relationships between the co-op partners.

## Acceptance and inclusiveness

Increasingly we are seeing educational models include workplace experiences as part of the qualification requirements, an indication of acceptance by academia. The second edition of the Handbook (2011) gives examples from 18 different disciplines that have well established practices of co-op, some of these fields having long established histories such as medicine, engineering, and teaching. Albeit, the issue of academic acceptance will

no doubt be an ongoing issue for some time, international trending suggests strongly that co-op (even if not under the same name) is getting considerable traction. Considering at the same time our substantive body of literature to support our practice, we should stop being defensive about co-op. As increasingly industry are demanding new-comers to be work-ready and have at least a bachelors level qualification, universities are responding by introducing or increasing the work experience components to their degrees. Significant development has taken place particularly in Australia (Patrick & Kay, 2011), where virtually all tertiary educational institutions have co-op (under the term WIL; work-integrated learning) as a significant part of their educational delivery, with some universities attempting to be pure co-op universities.

Perhaps a spin-off from this increasing diversity of disciplines practicing co-op, is the proliferation of terms used to describe, in board terms, what is essentially co-op (see discussion below). With this increasing diversity of practice of incorporating work experience components into a wide range of disciplines, questions can be asked 'what is co-op, and what is not?'. Some staunch stalwarts of co-op may argue for narrow definitions of co-op, however, we would argue that we need to be more inclusive. Narrow definitions of co-op are not helpful, may have contributed to the proliferation of terms, and could even restrict the realm in which co-op research is undertaken. Much valuable and informative work has been, and still is, carried out in the realms just beyond these narrow definitions of co-op.

## Use of terminologies

There has been a shift in the use of terms in co-op and WIL, and with the diversification, this shift appears to be ongoing. The terms co-op and WIL are often used interchangeably and some literature appear to ascribed almost synonymous meanings – even though some argue, probably correctly, that they are not truly synonymous. It is somewhat concerning that there is a proliferation of terms – some terms having been around some time; e.g., work-based learning, workplace learning, professional training, industry engaged learning, career and technical education, internships, collaborative education, experiential education, experiential learning (WIL), industry based learning, vocational education and training, fieldwork education, service learning, community-based learning, practicum, and work exchanges. We would argue that there also is little shared agreement of the meaning of these terms. Recently, WACE has begun using the term work-integrated education rather than work-integrated learning, since the term education is more holistic (includes both learning & teaching), an argument we find convincing, even if the acronym is perhaps somewhat unfortunate. The term work-integrated education may present a useful umbrella term, overcoming the challenge of diversity of terms. Groenewald, Drysdale, Chiupka and Johnston (2011) explore the definitions to co-op and present a possible taxonomy of terms, which is still ongoing ambitious work by Drysdale and Johnstone. There should, in addition, be an increased focus on the *defining features* of co-op/WIL (or whatever term one chooses to use). These defining features may include; exposure to a professional and relevant workplace (community of practice), of a duration alongside practitioners (old

timers) long enough for enculturation to occur (the ideal duration being a topic of much need of discussion), where the tasks undertaken are authentic, relevant, meaningful, and purposeful, where students are able to learn the workplace norms, culture, and understand/develop professional identity, and integrating that knowledge into their on-campus learning.

## Integration and cooperative education

Integration is talked about as being fundamental to any co-op program (Coll, et al., 2009; Coll & Zegwaard, 2011a; Johnston, 2011), and the term work-integrated learning/education, implies we are automatically talking about such integration as occurring. However, even though integration is identified as being fundamental (Allen & Peach, 2007), there is uncertainty within the co-op community about what is meant by the term, how we achieve this 'integration', or even if we would recognize it when it has been achieved. Therefore, we believe there is much debate (and research) yet to be had about achieving integration, advancing pedagogy, and curricular development.

Of concern is the unsupported notion that having a mere add-on work-experience program, tacked to the side of a degree or other program somehow constitutes co-op or WIL. Many of these programs exist. The assumption made by these programs is that by providing such experience, that learning will automatically occur (therefore assumed to be adding value to student learning experience), however, this is unfounded and not supported by the literature. At best some random learning may occur; however, it is not planned, structured, nor an expected outcome (Coll & Zegwaard, 2011a; Eames & Cates, 2011; Garrick, 1998). The quality of the learning experience is not secured, and perhaps even the emphasis that the placement is a learning experience may not be present.

The slow drift of co-op becoming centralized and service-focused has come at the cost of research active co-op academics (Sovilla & Varty, 2011) who will likely have a better appreciation of structuring a learning experience and be informed by recent developments of understanding of the co-op learning process. However, whatever the structural or administrative role or label for the co-op practitioner, Coll and Eames (2000) argue what actually matters is that such staff see themselves as 'educators', and have familiarity with theories of learning and the learning process/education per se. In a co-op program as we conceptualize it here, they are involved in *education*, not just the administration of a work-based learning program. It is this role then, whatever its label, and wherever it is located within an educational institution, that is crucial. Emphasis needs to be placed on having co-op practitioners informed by literature and research active, and to be accepted as teachers and educators (Eames & Cates, 2011) rather than general (and often part-time) contract staff. A non-academic location for co-op within an educational institution is not conducive to the formulation of academic programs with rigorous curricular, that will result in desirable educational outcomes (Coll & Zegwaard, 2011a; Freeland, 2007).

## Conclusion

Co-op has achieved much since the earlier years of Schneider. We must reflect back on the developments over the years, particular the substantive body of literature now readily available, but also recognize that further research is required. We must continue to advocate for resources that enable us to be effective in delivering our programs, to conduct our research, and to advance best practice models. The onus is on co-op practitioners to make these substantive benefits of co-op programs known to all key stakeholders; students, colleagues, and managers in their institutions, and external stakeholders such as officials and governments. We also need to be encouraged that the educational endeavor we call co-op is well-founded in research, effective, and grants positive and transformative life changing experiences for students that partake in our programs.

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## References

Allen, J. M., & Peach, D. (2007). Exploring connections between the in-field and on-campus components of a preservice teacher education program: A student perspective. *Asia-Pacific Journal of Cooperative Education, 8*(4), 23-36.

Baker, L., Caldicott, J., & Spowart, J. (2011). Cooperative and work-integrated education in hospitality and tourism. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives on theory, research and practice* (2nd ed., pp. 219-227). Lowell, MA: World Association for Cooperative Education.

Bartkus, K. R. (2007). A review and synthesis of scholarly research in cooperative education and internship: Part 1. An analysis of quantitative research published outside the Journal of Cooperative Education and Internships. *Journal of Cooperative Education and Internships, 41*(1), 56-96.

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.

Bartkus, K. R., & Stull, W. A. (2004). Research in cooperative education. In R. K. Coll & C. Eames (Eds.), *International handbook for cooperative education: An international perspective of the theory, research and practice of work-integrated learning* (pp. 67-81). Boston, MA: World Association for Cooperative Education.

Coll, R. K., & Eames, C. (2000). The role of the placement coordinator: An alternative model. *Asia-Pacific Journal of Cooperative Education, 1*(1), 9-14.

Coll, R. K., Eames, C., Paku, L., Lay, M., Ayling, D., Hodges, D., Ram, S., Bhat, R., Fleming, J., Ferkins, L., Wiersma, C., & 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., & Kalnins, T. (2009). A critical analysis of interpretive research studies in cooperative education and internships. *Journal of Cooperative Education and Internships, 43*(1), 1-14.

Coll, R. K., & Zegwaard, K. E. (2006). Perceptions of desirable graduate competencies for science and technology new graduates. *Research in Science and Technological Education, 24*(1), 29-58.

Coll, R. K., & Zegwaard, K. E. (2011a). 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.

Coll, R. K., & Zegwaard, K. E. (Eds.). (2011b). *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice*. Lowell, MA: World Association for Cooperative Education.

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.

Eames, C., & Bell, B. (2005). Using sociocultural views of learning to investigate the enculturation of students into the scientific community through work placements. *Canadian Journal of Science, Mathematics and Technology Education, 5*(1), 153-169.

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.

Freeland, R. M. (2007, June). *Keynote address: Reflections on Co-op at Northeastern: Crisis, change, and the pursuit of quality*. In the proceedings of the 15th World Conference on Cooperative Education, Singapore.

Garrick, J. (1998). Informal learning in corporate workplaces. *Human Resource Development Quarterly, 9*(2), 129-144.

Groenewald, T., Drysdale, M., 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.

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.

Linn, P. L., Howard, A., & Miller, E. (Eds.). (2004). *Handbook for research in cooperative education and internships*. Mahwah, NJ: Lawrence Erlbaum Associates.

Martin, A. J., & Hughes, H. (2011a). *How to make the most of work-integrated learning: For academic supervisors*. Wellington, NZ: Ako Aotearoa.

Martin, A. J., & Hughes, H. (2011b). *How to make the most of work-integrated learning: For students*. Wellington, NZ: Ako Aotearoa.

Martin, A. J., & Hughes, H. (2011c). *How to make the most of work-integrated learning: For workplace supervisors*. Wellington, NZ: Ako Aotearoa.

Martin, A. J., Rees, M., & Edwards, M. (2011). *Work-integrated learning: A template for good practice*. Wellington, NZ: Ako Aotearoa.

Orrell, J. (2011). Good practice report: Work-integrated learning (pp. 83). Strawberry Hills, NSW, Australia: Australian Leaning and Teaching Council.

Patrick, C.-J., & Kay, J. (2011). Establising a new national network for cooperative 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. 371-380). Lowell, MA: World Association for Cooperative Education.

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.

Schafer, J. A., & Castellano, T. C. (2005). Academe versus academy: Faculty views on awarding academic credit for police training. *Journal of Criminal Justice Education, 16*(2), 300-317.

Sovilla, E. S., & Varty, J. W. (2011). Cooperative and work-integrated education in the US, past and present: Some lessons learnt. 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. 3-15). Lowell, MA: Work Association for Cooperative Education.

Tully, C. T., Kropf, N. P., & Price, J. L. (1993). Is field a hard hat area? A study of violence in field placements. *Journal of Social Work Education, 29*(2), 191-199.

Wilson, R. L. (1988). Research in cooperative education. *Journal of Cooperative Education, 24*(2-3), 77-89.

Winberg, C., Engel-Hills, P., Garraway, J., & Jacobs, C. (2011). Work-integrated learning: Good practice guide (pp. 82). Pretoria, South Africa.

Zegwaard, K. E., & Coll, R. K. (2011). Using cooperative and work-integrated education to provide career clarification. *Science Education International 22*(4), 282-291.