

Examining the Research Base on University Co-operative Education in Light of the Neoliberal Challenge to Liberal Education

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Debates have been taking place in higher education communities in Canada and other Anglo-American contexts between defenders of liberal education and promoters of neoliberalism. One development not addressed is the growth of co-operative education (co-op). The origins of co-op may reside in John Dewey's (1939, 1966) ideas about experience and democracy, but co-op also resembles a neoliberal phenomenon. We reviewed the North American literature on co-op from 1990-2014 to see if and how the rise of co-op has posed a challenge to liberal education. Our analysis revealed a dominant focus on instrumental and economic purposes reflecting neoliberal reforms, strands of philosophical and empirical inquiry consistent with liberal education, and a notable absence of critical, emancipatory outlooks. We contend that co-op researchers need to rediscover the socially progressive promise of experiential education, informed by other educational subfields. We also argue that researchers interested in neoliberal challenges to liberal education need to tap co-op as a site of inquiry.

Des débats ont lieu dans des communautés de l'enseignement supérieur au Canada et dans des contextes anglo-américains, entre les apôtres d'une éducation libérale et les promoteurs du néolibéralisme. Un élément qui n'est pas abordé est la croissance de l'éducation coopérative. Les origines de l'éducation coopérative pourraient se trouver dans les idées de John Dewey (1939, 1966) touchant l'expérience et la démocratie, mais celle-ci ressemble également à un phénomène néolibéral. Nous avons examiné la documentation nord-américaine portant sur l'éducation coopérative de 1990 à 2014 pour déterminer dans quelle mesure la montée de l'éducation coopérative pose un problème à l'éducation libérale. Notre analyse a révélé un fort accent sur des objectifs instrumentaux et économiques reflétant des réformes néolibérales, des éléments d'enquête philosophique et empirique compatibles avec une éducation libérale, et une absence notable de perspectives critiques et émancipatrices. Nous soutenons que les chercheurs en l'éducation coopérative doivent redécouvrir la promesse progressiste sur le plan social qu'est celle de l'éducation expérientielle éclairée par d'autres sous-zones éducatives. Nous attestons également que les chercheurs qui s'intéressent aux défis néolibéraux à l'éducation libérale doivent se pencher sur l'éducation coopérative.

Since the 1980s, important debates in Canadian and other Anglo-American higher education communities have been taking place between those defending the values and purposes of liberal education and those promoting the neoliberal tenets prevalent in the state and society. At stake for supporters of liberal education is the relatively autonomous relationship needed between

higher education and the state, labour markets, and business communities for universities to play their role as sites of unfettered exploration, expression, and critique that are central to authentic personal growth and progressive social and democratic development (e.g., Axelrod, 2002; Docherty, 2011; Holmwood, 2011; Schrecker, 2010; Scott, 1984, 1991). In contrast, advocates of neoliberal purposes call for tighter linkages between universities, markets, and the business sector, believing this will create the institutional conditions needed to promote competitiveness, entrepreneurship (Harvey, 2005), human capital development (Fisher, Rubenson, Jones, & Shanahan, 2009) and increased economic returns on private and state investments in higher education (Giroux, 2014).

In the over thirty years since these debates began, a variety of curricular reforms have emerged in Canadian universities. These changes have privileged professional and technical programs calibrated to labour markets, downplaying the liberal arts and sciences (Axelrod, 2002; Axelrod, Anisef, & Lin, 2001; Côté & Allahar, 2012; Grosjean, Atkinson-Grosjean, Rubenson, & Fisher, 2000; Hyslop-Margison & Leonard, 2012; Melody, 1997) and subject domains that do not relate to economic, social, and political issues from corporatist or statist perspectives, such as fundamental science, humanism, feminism, and post-colonialism (Giroux, 1999). Proponents of liberal education argue neoliberal aims have guided these reforms, threatening a core purpose of the universities which is to educate critical, inquisitive, fair-minded citizens and not just to train workers (Axelrod et al., 2001; Kirby, 2011; Nussbaum, 2010).

An important development that seems to have flown under the radar for those interested in threats to liberal education is the spread of co-operative education programs, which allow students to alternate periods of academic study with paid work experiences (Canadian Association for Co-operative Education, 2015). In the Canadian context, co-operative education is offered in 55 universities, and aggregate enrollment in these programs approached 80,000 students in 2013 (Association of Universities and Colleges of Canada, 2015). There is variation in the scale and disciplinary reach of co-op across institutions; however, it has been integrated into a range of professional and technical fields as well as other disciplines, including those conventionally associated with liberal forms of education.

Co-operative education programs operate at the interface between the academic curriculum and the workplace, with administrative processes and labour markets serving as primary bridging mechanisms. Furthermore, these programs facilitate state policies that allow for creating the enabling framework of “putting education to work” (Canadian Association for Co-operative Education, 2015a.). Because of the close relationships co-operative education forges between the curriculum, markets, workplaces, and state policy, it resembles a neoliberal phenomenon. Yet, in our engagement with the higher education literature we had not come across a sustained treatment of it as a potential neoliberal challenge to liberal education. This revelation gave rise to the research interests pursued in this paper.

We report on a systematic review and analysis of the North American academic literature on university-level co-operative education conducted with the aim of describing how the rise of such a curricular reform has been implicated in, or could help inform, the scholarly debate about the status of liberal education in neoliberal times. We sought to answer two questions:

- What have scholars substantively researched and said about co-op in light of the liberal versus neoliberal debate in higher education?
- What can be “seen” or “read into” the literature on co-op that has important bearing on the debate?

We proceed by offering an overview of the debate and a philosophical and historical introduction to co-operative education. Next, some theoretical and methodological considerations are outlined. We then present our findings and close the paper with a discussion of their implications for the debate and future research. Throughout the paper, we use the shorthand term *co-op* to refer to co-operative education as a phenomenon, program and object of research, following the common practice of scholars and practitioners of co-operative education.

The Debate: Liberal Education in Neoliberal Times

Throughout their modern, secular history, Canadian universities have furthered the principles of a socially progressive, democratic society through teaching and research, and as respected sources of diverse forms of knowledge and criticism (Côté & Allahar, 2012; Harris, 1976; Katz, 1985; Axelrod, 2002). They have also made significant contributions to the vocational and economic needs of their host societies (Association of Universities and Colleges of Canada, 2015; Kirby, 2011). The dynamic tension that has existed between these purposes has come to be understood in parts of the academic community as a struggle between liberal and neoliberal forms of education.

Liberal education is seen to encapsulate the social, scientific, cultural, and democratic mission of universities (Axelrod, 2002; Barnett, 2000; Scott, 1984, 1991; Weaver, 1991). It has at least two aims: first, unearthing, developing, disseminating, criticizing, and storing knowledge that contributes to individual and collective goods in society; and second, socializing students into the habits of mind, values, and attitudes that will help them engage responsibly as citizens. Advocates of liberal education have also recognized the role universities play in preparing students for work and in producing knowledge that has economic utility; but these have been seen as secondary aims (Axelrod, Anisef, & Lin, 2001; Nussbaum, 2010).

Schisms have emerged in communities of supporters of liberal education over the last three decades, such that “modern” and “postmodern” forms of liberal education co-exist somewhat disharmoniously (Côté & Allahar, 2012; Kelly, 2012; Scott, 1997). At the risk of oversimplifying, modernist outlooks are generally associated with a liberal arts and sciences education based in European traditions. They have at their core such ideals as the search for truth, virtue, beauty, and the cultivation of intellect, including the capacity for deep and broad analysis, critical reflection, and authentic self-expression (Côté & Allahar, 2012; Mulcahy, 2010). In contrast, postmodernist approaches encompass an array of culturally, epistemologically, and ontologically differentiated views on what constitutes a liberal education. They tend to be activist in intent, aiming to undo various processes and forms of oppression and marginalization to create more humane, equitable, inclusive, and just conditions in society and the economy (Chavez-Reyes, 2010; Giroux, 1999; Marable, 2003).

Since the mid-1980s, a number of developments have challenged liberal forms of education (Axelrod, 2002; Lyotard, 1984). These have given shape to a neoliberal paradigm that situates universities as sites for transmitting to students, as future workers, skills and attributes for a knowledge-based economy (Coates, 2012; Kirby, 2011). Proponents of liberal education view neoliberalism as a threat to higher education because it has become ideologically entrenched in policies that encourage vocationalism, competition, deregulation, privatization, marketization, corporatization, and “union busting” (Orlowski, 2011, p. vi). All of these strategies serve to alter the relatively autonomous relationship modern universities enjoyed with the state, markets, and

economic actors and institutions (Axelrod et al., 2001; Dylan, 2012; Hyslop-Margison & Leonard, 2012; Pringle & Huisman, 2011; Turk 2014). These developments have pushed to the periphery forms of knowledge, identities, and ways of relating and being that cannot be readily used or commercialized in the economic system (Axelrod et al., 2001; Newson, 1994; Tudiver, 1999; Polster, 2000). An economic ideology in higher education is seen to privilege private interests at the expense of the public good (Axelrod, 2002), putting a public trust in jeopardy (Katz, 1985). The changed relationships and power dynamics are seen to have eroded democratic self-governance in universities. They are also viewed as diminishing the diversity and quality of inputs into the development and critique of social, political, cultural, and economic policies and arrangements (Buchbinder & Newson, 1990; Cameron, 1991; Kelly, 2012; Newson, 1994; Melody, 1997), a trend bolstered by the anti-trade union stance of neoliberalism (Harvey, 2005). This has the potential to undermine protections for academic freedom historically achieved through collective bargaining processes (Bruneau, 2014; Lynk, 2014). The increased channelling of research and learning towards instrumental, economic, professional, and vocational ends (Adamuti-Trache, Hawkey, Scheutze, & Glickman, 2006) is seen to have interfered with educating students for “the richest possible participation in public life” (Giroux, 1999, p. 43). These changes are reported to be taking place with little meaningful response from within the professoriate (Hyslop-Margison & Leonard, 2012; Kelly, 2012).

Enter Co-op: Philosophical and Historical Overview

Canadian universities widely adopted co-op during the rise to prominence of the neoliberal paradigm. In co-op, students “alternate periods of academic study with work experiences in appropriate fields in business, industry, government, social services and the professions” (Canadian Association for Co-operative Education, 2015a). Accredited programs feature: oversight by the university, engagement in productive work, pay for work performed, onsite supervision and evaluation, and substantial time spent in work experiences (Canadian Association for Co-operative Education, 2015a).

There are conflicting views on the philosophical origins and purposes of co-op. Some authors have reported they flow from the connections John Dewey promoted in the early 20th century between experiential learning and democracy (Heinemann & De Falco, 1990; Ryder, 1987; Van Gyn, Branton, Cutt, Loken, & Ricks, 1996). Dewey (1939) argued the dialogical integration of the meaning of work experiences within socially progressive educational processes could enhance intellectual and social development, enabling people to become critically reflective, engaged citizens. Dewey (1977) also maintained that, properly conceived, vocational education could help reform dehumanizing industrial work processes to allow the full development of human potential.

The more common historical narrative, however, sees the roots of co-op in the vocational philosophy of Herman Schneider, the University of Cincinnati administrator who “invented” co-op in 1906 to meet demands from industry for better prepared engineers (Haddara & Skanes, 2007; Park, 1943; Sovilla & Varty, 2004). Schneider’s approach “put the workplace at the centre of learning by moulding students’ learning to a set of predetermined standards based on workplace norms” (Grosjean, 2000, p. 42). This stance extended to the Canadian context, where, in the late 1950’s at what became the University of Waterloo, co-op was first introduced to address a shortage of technical skills and help North America gain technological advantage in the Cold War (McCallum & Wilson, 1988; Sovilla, 1988).¹ Since its inception at Waterloo, close

connections have endured to the present between co-op research and practitioner communities across the Canada-U.S.A. border (see e.g., Haddara & Skanes, 2007), with the journal of the Co-operative Education and Internship Association (originally established in 1963 as the Co-operative Education Association) serving as the pre-eminent forum for integrating the knowledge base about co-op on a North American basis.

The original emphasis in the early 20th century on the development of workplace skills and human resources at the University of Cincinnati, repeated four decades later at the University of Waterloo, has persisted as a key focus in co-op (Blackwell, Bowes, Harvey, Hesketh, & Knight, 2001; Milley, 2002; Wilson, Stull, & Vinsonhaler, 1996). In economic downturns, supporters and policy-makers also constructed co-op as a means to reverse the vicious cycle of “no experience, no job; no job, no experience.” In Canada, this was an important part of the co-op agenda from the early-1980s to the mid-1990s, with the Canadian federal government providing funding to universities to launch co-op programs (Van Gyn & Grove White, 2002). During the same period, a nascent social equity orientation emerged when a small number of co-op programs were launched to assist people who faced specific barriers in the labour market, such as women who had been out of the labour market for extended periods or persons with disabilities (McCallum & Wilson, 1988).

In the mid-1990s, the Canadian federal government ceased direct funding for co-op (Van Gyn & Grove White, 2002) and reduced transfer payments to provincial governments which had been used to support post-secondary education (Canadian Centre for Policy Alternatives, 2012). This placed considerable financial pressure on university administrators, including those responsible for co-op. Since that time, co-op supporters and managers have had to regularly communicate the value of their programs to various audiences to recruit participants, secure legitimacy, and justify funding received through user fees and restrained budgets (Wilson et al., 1996). A core strategy of supporters and managers has been to describe the benefits of co-op for stakeholders. Table 1 summarizes a list of these advantages published by the Canadian Association for Co-operative Education (2015b).

This list expresses important values, but they are largely instrumental and economic in orientation, reflecting Schneider’s (see Park, 1943) industrial-age philosophy adapted to a

Table 1:

Summary of Co-op Benefits

Students	Employers	Institutions
<ul style="list-style-type: none"> • Test skills, theories, and knowledge 	<ul style="list-style-type: none"> • Access to a pool of temporary, skilled, motivated human resources 	<ul style="list-style-type: none"> • Increase enrollment of top quality students
<ul style="list-style-type: none"> • Get hands-on experience 	<ul style="list-style-type: none"> • Reduce recruiting costs 	<ul style="list-style-type: none"> • Enrich the university community through work experience
<ul style="list-style-type: none"> • Gain competitive edge in workforce 	<ul style="list-style-type: none"> • Vet future employees 	<ul style="list-style-type: none"> • Prepare students for productive roles
<ul style="list-style-type: none"> • Earn money to finance education 	<ul style="list-style-type: none"> • Benefit from fresh ideas 	<ul style="list-style-type: none"> • Enhance visibility and reputation
<ul style="list-style-type: none"> • Explore career options 	<ul style="list-style-type: none"> • Provide feedback on curricula 	<ul style="list-style-type: none"> • Receive employer feedback on curricula
<ul style="list-style-type: none"> • Expand networks with employers 	<ul style="list-style-type: none"> • Play a mentorship role 	<ul style="list-style-type: none"> • Find opportunities for collaborative research projects

knowledge-based economy. The values also suggest a philosophical congruence among the different players. Yet, it is not obvious how modern or postmodern liberal education values fit or could contribute in the learning and development processes associated with co-op. Moreover, there are significant philosophical and political conflicts in and around co-op when one starts looking for them. For example, the relationships implied in Table 1 suggest feedback processes on curricula only work in one direction, with university-based actors not benefiting from having a “say” in the quality and character of workplace learning, including access to opportunities through market mechanisms. Conflicts such as this can be understood as part of the dialectical tension in co-op between the goal of adapting learning processes to the existing economic regime (as per Schneider – see Park, 1943) or incorporating that regime into learning processes that subordinate it to personal growth and broader social and democratic aims (as per Dewey, 1939, 1966, 1977). For our purposes, this boils down to a dynamic friction between neoliberal and liberal perspectives on co-op and higher education.

Theoretical and Methodological Considerations

This study was designed to investigate a) what scholars have substantively researched and said about co-op in light of the liberal versus neoliberal debate in higher education; and b) what can be “seen or “read into” the literature on co-op that has important bearing on the debate. We pursued the first question through a systematic search for peer-reviewed journal articles that explicitly addressed neoliberalism, liberal education or the neoliberal-liberal education debate. Based on the initial impetus for this study, we suspected this search might yield very little. Thus, in addressing the second question, we tracked down and analyzed literature on university-level co-op that implicitly addressed or reflected aspects of neoliberalism, liberal education or the debate about them. In both phases, we limited the search to publications emanating from the North American context beginning in 1990, which is roughly the time the neoliberal agenda emerged in Canadian higher education.

Conceptual lens

To guide our efforts, we developed a conceptual lens, first deducing a classification schema based on our understanding of the liberal and neoliberal debate and making adjustments as we harvested the literature. This lens came to distinguished three categories, including instrumental and economic education (IEE), liberal education (LE) and emancipatory liberal education (ELE) (see Figure 1). Respectively, these categories reflected the neoliberal, modern liberal and postmodern liberal educational perspectives at the heart of the liberal versus neoliberal debate. Through a close reading of the articles, we were able to group each study into a particular category based on how the research interests pursued in it and purposes it intended to serve most closely corresponded to our definition of that category.

Articles classified as having an IEE focus included those that sought to align features of universities with demands of markets. They encompassed studies about economic outcomes for various actors. Research that emphasized the need for universities to adapt and meet industry needs, studies about program effectiveness, efficiency, and improvement, and those that focused on co-op as a means for achieving pecuniary, management, career and human resource development, or economic goals all fell into this category.

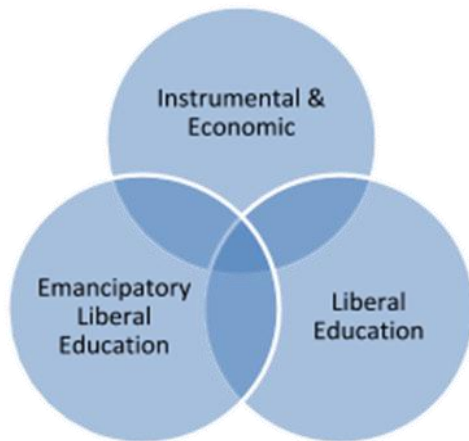


Figure 1: Conceptual Lens for Searching and Analyzing Research Articles on Co-op

Articles categorized as demonstrating an LE perspective expressed or related to a “modernist” outlook on liberal education. They included those that focused on universities as sites for cultivating manifold forms of knowledge and pursuing intellectual work as an end in itself (Mulcahy, 2010). They comprised research that saw the purposes of university education as being about providing “students with broad knowledge of the wider world (e.g. science, culture, and society) as well as in-depth study in a specific area of interest ... [and]...a sense of social responsibility, as well as strong and transferable intellectual and practical skills” (Association of American Colleges and Universities, 2015). Studies that aimed to develop scientific or scholarly knowledge about certain phenomena, experiences, and learning processes associated with co-op that reached beyond instrumental or economic purposes were also placed in this category, and include philosophies and models of learning, cognitive growth, moral character development, and analyses of the existing knowledge base.

We defined ELE as a category in which studies could be grouped that featured postmodern views, such as those influenced by feminist and gender studies, critical pedagogy, post-colonialism, anti-racism, and education for social change (Mulcahy, 2010). We anticipated these would encompass research that conveyed an interest in establishing human-centred, socially just, inclusive, culturally diverse, or power sensitized approaches in higher education (Giroux, 1999; Marable, 2010). Given the negative effects of power relations in universities, labour markets, workplaces, and policy processes on certain groups (e.g., Henry & Tator, 2009; Block & Galabuzi, 2011), we anticipated finding studies that raised and pursued critical questions about the experiences, for example, of students from minority ethnic or racialized backgrounds, women students, students with disabilities, or students from difficult socioeconomic situations.

The Data: Search strategy and analytical considerations

This study is based on the review and analysis of 73 articles. Within the search parameters, we focused our search on peer-reviewed scholarly journals, including theoretical and empirical studies.² Search terms were based on the research questions and conceptual lens, and thus combined core terms (e.g., co-op/coop/co-operative education, higher education, university/universities) with a range of specific terms (e.g., liberal education, neoliberal, gender, feminism, race, post-colonial, social class, social justice, etc.) to target articles representing the

range of interests and perspectives in the liberal versus neoliberal debate.³ Based on the historical and philosophical continuity of co-op research and practice in Canada and the United States of America, as outlined previously, and the relatively small size of the Canadian co-op research community, we included articles written from or about both jurisdictions. The analysis that follows is based on 22 articles representing the Canadian context, 49 from the U.S.A., and 2 that bridge the two contexts.

To organize the data and conduct our analysis, we generated an annotated bibliography and summarized articles in a table.⁴ This allowed us to compare and analyze the research interests, purposes and findings of each study. We then proceeded to classify the studies relative to our three-part conceptual lens. This process prompted the identification of six major themes that cut across the knowledge base.⁵ Tables 2 and 3 present the thematic focus of articles in relation to the three categories from our conceptual lens (i.e. IEE, LE, ELE) for the 1990s and the 2000s respectively.

Findings and Analysis

Advocates and practitioners have produced much of the research about co-op, leading some commentators to observe the literature represents a struggle to establish the institutional legitimacy of co-op (Grosjean, 2000; Haddara & Skanes, 2007; Wilson et al., 1996). As we searched for, digested and analyzed the co-op literature, we discerned how the broader shift towards neoliberal values and purposes in and around higher education was reflected in the focus of co-op researchers. More specifically, we considered how these researchers worked to bring co-op into the institutional mainstream over the course of two decades.

The 1990s: Working to establish institutional legitimacy

Wilson's (1997) review article is a helpful place to start an analysis of the co-op literature of the 1990s. The majority of studies he surveyed (n=60 beginning in 1985) sought to answer the basic question "does co-operative education have merit?" (Wilson, 1997, p. 17). Most tried to determine whether co-op students reaped benefits with respect to such goals as career growth, earnings, job satisfaction, and academic achievement. The findings were ambiguous. They revealed positive results (Wilson, 1997) but not of the magnitude expected. Wilson (1997) concluded that co-op had potential to produce greater benefit if researchers focused on developing "programmatic treatments that [would] assure or enhance those outcomes" (p. 23). Other researchers also expressed this view, with Rowe (1996) and Van Gyn, Cutt, Loken, and Ricks (1997) arguing more research was needed to understand how co-op worked so it could be improved.

Instrumental and economic educational purposes. The pattern of research interests throughout 1990s reflects a strong focus on establishing the instrumental and economic merits of co-op, as pointed out and advocated by Wilson (1997). A key goal was investigating advantages for students. There are five examples related to jobs and wages Marini & Tillman (1998) who suggested co-op students gained a competitive advantage in the labour market by developing the "soft" and "hard" skills needed for success; Beard (1998) and Ishida, Ako, and Sekiguchi (1998) who found co-op students stood a greater chance of being hired into their professions after graduation; Somers (1995) and Mann and Gilbert (1995) who found salary

advantages from co-op; and Rowe (1992) who determined co-op students made higher wages upon graduation, an early gain that did not last over time; and Gardner & Motschenbacher (1997), who found co-op students did not always gain labour market advantages. Three examples are related to careers: Ishida et al.'s (1998) findings that co-op students had more confidence and felt more job ready; Sharma, Mannell, and Rowe's (1995) study that found co-op students developed higher expectations for "extrinsic" outcomes; and Pittenger's (1993) report that more co-op experiences led to higher levels of self-reported career growth.

Table 2:

Co-op Research Articles Classified and Thematized-1990-1999

Themes						
	Student learning/ experience	Ethics	Social Justice/ Marginalized Groups	Economic- administrative benefits	Stakeholder collaboration	Co-op theory/ program Development
IEE	Pittenger (1993) Demetriou (1995) Ishida, Ako & Sekiguchi (1998)			Rowe (1992) Mann & Gilbert (1995) Praetzel (1995) Sharma, Mannell & Rowe (1995) Somers (1995) Gardner & Motschenbacher (1997) Wilson (1997) Beard (1998) Marini & Tillman (1998)	Martz et al. (1999)	Wilson, Stull & Vinsonhaler (1996)
LE	Guskin (1993) Van Gyn et al. (1996) Van Gyn et al. (1997) Canale & Duwart (1999) Cates & Langford (1999) Murphy et al. (1999)	Tillman (1990)				Branton et al. (1990) Heinemann & DeFalco (1990) LeBold, Pullin & Wilson (1990) Heinemann, De Falco & Smelkinson (1992) Ricks et al. (1993) Van Gyn (1994) Ricks (1996) Van Gyn (1996) Bartkus & Stull (1997) Finn (1997)
ELE						

Table 3:

Co-op Research Articles Classified and Thematized-2000-2014

Themes						
	Student Learning & experience	Ethics	Social Justice/ Marginalized groups	Economic-administrative benefits	Stakeholder collaboration	Co-op theory/ program development
IEE	Dickerson & Kline (2008) Hergert (2009)		Walters & Zarifa (2008)	Braunstein & Stull (2001) Dodge & McKeough (2003) Blair & Millea (2004) Fang et al. (2004) Gamroth, Budgen & Loughheed (2006) Gault, Leach & Duey (2010) Weible (2010) Anderson et al (2012) Rigsby et al. (2013)	Carpenter (2003) Waples & Ropella (2003) Broome & Morris (2005) Krishnan (2010)	
LE	Bartkus (2001) Parks, Onwuegbuzie & Cash (2001) Wiseman & Page (2001) Howard & England-Kennedy (2001) Hezlett (2005) Hoffart et al. (2006) Ng & Burke (2006) Jones (2007) Mosca, Paul & Skiba (2007) Raelin et al. (2007) Fifolt & Searby (2010) Brent (2012) Donohue & Skolnik (2012) Jeffryes & Lafferty (2012) Saltz, Serva & Heckman (2013)	Wilson (2001) Mark (2001) Cates & Dansberry (2004) Cohen (2010)	Ingram & Ens (2011)	Vick (2001)	King (2001)	Haddara & Skanes (2007) Donovan, Porter & Stella (2010)
ELE			Nott & Zafft (2006) Burgstahler & Bellman (2009)			

Two other important interests in this period were to conceive co-op as a legitimate curriculum model and discover ways of improving student learning to enhance economic outcomes. Wilson et al. (1996) revealed the institutional politics behind these interests in arguing co-op needed to become part of the academic mainstream to avoid being seen as an “add-on” that could be cut in cash-strapped universities. One solution was to position co-op as a means of preparing students for a rapidly changing, globalized economy. An example is Demetriou’s (1995) account of the Integrated Curricular Experiential Model, wherein “totally integrated” work experiences with the academic curriculum allow the development of workplace competencies. Others include research on stakeholder collaboration to improve labour market results, including Beard (1998), who found proper supervision helped students develop the professional skills needed to compete in the job market; and Martz, Repka, Kramer, and Reale (1999), who highlighted the importance of effective partnerships between universities and employers, focusing on the case of an insurance company’s close relationship with a university.

Liberal education perspectives. Our search of the 1990s also yielded articles that demonstrated liberal education perspectives. The pattern of interests reflects the same “logic” of the instrumental and economic research (i.e. investigating advantages and how to improve outcomes), but the underlying values are more “purely” educational and some philosophical concerns are evident.

With significant pressure for establishing legitimacy arriving on the scene in the early 1990s, the decade opened with a variety of theoretical forays, which stimulated a philosophical strand of inquiry for a number of years. Heinemann and De Falco (1990) and Saltmarsh (1992) pointed out John Dewey’s name was used to lend credibility to co-op without his philosophical orientation being present, particularly in practice, and sought to put Deweyan purposes and values on the table. At the same time, Branton, Van Gyn, Cutt, Loken, Ney, and Ricks (1990) argued co-op supported traditional educational values and was based on accepted education theory. Shortly after, Heinemann, DeFalco, and Smelkinson (1992) articulated a vision for work experience enriched learning and developed a pedagogical model based on Deweyan concepts that aimed to integrate academic, career and personal growth objectives. Meanwhile, Guskin (1993) connected experiential learning theories with theories of intelligence, and Van Gyn (1994) put forward a case for transformational learning as a foundation and, later, explored the potential for co-op to contribute to reflective practice, concluding significant reform was needed to facilitate it (Van Gyn, 1996). Ricks et al. (1993) argued researchers needed to theorize co-op in accordance with educational values. Van Gyn (1994) and Ricks (1996) meanwhile, observed that the philosophical orientations researchers—and practitioners and participants—assumed towards co-op influenced the effects co-op was perceived to have. Ricks (1996) also articulated principles to bring co-op into the educational realm, arguing an orientation on the part of educators, students and employers towards producing educative experiences instead of pursuing instrumental or economic goals was needed to produce value.

Empirical lines of inquiry about educational value were opened up during this decade. Ricks, Van Gyn, Branton et al. (1990) set the stage for Van Gyn et al.’s (1997) attempt to address the question of educational benefits of co-op through a large, quasi-experimental study. Van Gyn et al. (1997) reported not finding strong evidence to suggest co-op was a more effective educational model than regular programs, but observed there was enough evidence to warrant further research. Other studies were conducted to better understand the educational benefits of co-op and how to augment them. Cates and Langford (1999) looked at the learning outcomes, finding improved general education skills (i.e. communication and critical literacy) in addition to

industry-specific skills. Moreover, Murphy, MacGillivray, Reid, and Young (1999) studied cognitive differences between co-op and non-co-op students, reporting the former demonstrated a more analytical style. Other researchers focused on how to improve learning processes, emphasizing the transfer and integration of cognitive knowledge across contexts. Canale and Duwart (1999) reported online tools facilitated interactions between students, peers and co-op staff that contributed to the integration of cognitive, affective and behavioural dimensions of learning between academic and workplace environments.

The educational orientations and characteristics of co-op students also became an interest in the 1990s. Tillman (1990) studied the ethical orientations of engineering students and found co-op moved them from rule- to act-based ethics. Rowe (1992) reported the reasons co-op students attended university were more instrumental than their non-co-op peers, and Van Gyn et al. (1996) found students with high grades and previous work experience were more likely to pursue and be selected into co-op programs. Looking back, these latter two studies signal some important concerns from LE and ELE perspectives in the present context. The attitudes identified by Rowe (1992) could be seen as harbingers of the increased instrumentality in the educational milieu that ensued with the growth of co-op, among other professional, technical, and vocational programming on campuses. The findings about selection processes raise issues about equity and inclusion, as they suggest co-op served those who already had advantages in the labour market. With the increased reliance on competition and market mechanisms in higher education in the years following Van Gyn et al.'s (1996) study, it is likely these issues have not abated as neither of those mechanisms are known to produce equitable outcomes if left unregulated.

Near the close of the decade, some members of the co-op research community argued for a more systematic approach to increasing the knowledge base. Bartkus & Stull (1997) called for a more coherent research agenda to achieve academic legitimacy, and Finn (1997) recommended co-op practitioners needed to conduct research to advance their understanding of their field. Based on our conceptual categories, these studies represented a liberal education interest insofar as they aimed to promote the advancement of knowledge for more than instrumental or economic purposes.

Emancipatory liberal education perspectives. We found no North American-based research during this period that reflected ELE perspectives. This is surprising given the rise of ELE points of view throughout the 1980s and 1990s in research in higher education (e.g., Newson, 1994; Slaughter & Leslie, 1997), adult education (e.g., Briton, 1996; Mezirow, 1995) and workplace learning (e.g., Fenwick, 2000; Hart, 1992), let alone in other educational fields. Moreover, significant changes were taking place in Canadian society and economy that were not hinted at in the co-op literature. In particular, co-op rose to prominence during the implementation of the *Canadian Charter of Rights and Freedoms* (1982) that drew attention to discriminatory practices against certain groups (e.g., women, racialized persons, Aboriginal peoples, persons with disabilities) and aimed to protect their rights. The educational and economic institutions co-op bridged were targets of this constitutional reform, making the absence of questions in co-op research related to issues of power and marginalization even more startling.

We became aware of studies on co-op from ELE perspectives that did not fall within the specific limits of our search criteria (i.e. higher education in North America). In Australia, Schaafsma (1996) argued the merits of incorporating a cultural studies and feminist view on co-op. At the level of secondary schooling, Ahola-Sidaway, McKinnon, Simser & Spletzer (1996)

and Simon, Diplo & Schenke (1991) conducted research using critical pedagogy as a lens. These studies suggested co-op could be fashioned to support ELE, for instance, by encouraging students to investigate, map and critique power structures in work sites to better understand the negative consequences an arbitrarily gendered division of labour has for women workers (Simon et al., 1991). In the North American context, this work was not picked up and translated into a critical research agenda at the university-level.

2000s: Continuity with signs of maturation and change

The research on co-op published since the start of the New Millennium continued to emphasize its IEE contributions and how to understand and improve student learning. The studies yielded in our search also emphasized professional and technical fields, such as engineering, accounting, business administration, and nursing. Few addressed the liberal arts and sciences. However, there were signs of a broadening of research interests, informed by more diverse views on the purposes and effects of co-op compared to the 1990s.

Instrumental and economic purposes. In their focus on the IEE purposes of co-op, researchers picked-up and contributed to the neoliberal discourses and practices that had become prominent in Canadian universities in the 2000s. They highlighted the ways in which co-op participants and stakeholders all “win.” Waples and Ropella (2003) argued, in addition to the familiar claims of students gaining career and pecuniary advantages (see also Blair and Millea, 2004; Gamroth, Budgen, & Loughheed, 2006; Ng & Burke, 2006) and businesses accruing efficiencies in recruitment and staffing (see also Braunstein & Stull, 2001), universities benefited through higher levels of student satisfaction and improved graduate employment outcomes (see also Blair & Millea, 2004; Gault, Leach, & Duey, 2010; Rigsby, Addy, Herring, & Polledo, 2013; Fang, Lee, Lee & Huang, 2004; Ng and Burke, 2006) and new opportunities for research collaborations with employers and industries.

These claims, some of which were also found in Dodge and McKeough (2003), signaled two new interests: student engagement and previously unexplored aspects of stakeholder collaboration. Research in these areas can be viewed as part of the ongoing struggle of the co-op community to establish its institutional legitimacy. In the context of ongoing deregulation in the 2000s that increased competition between universities and dramatically raised tuition fees (Canadian Centre for Policy Alternatives & Fraser, 2014), student recruitment, retention and success became important administrative considerations. Co-op researchers sought to clarify how co-op offered solutions to these problems. Weible (2010) argued it could increase recruitment in business programs. Anderson, McRae, Johnston, Reed, Iles, and Walchli (2012) reported the availability of co-op was an important factor in students’ choice of which university to attend and co-op had a positive influence on retention (also see Gamroth et al. 2006). Blair and Millea (2004) noted participation in co-op increased grade point average and led to faster degree completion.

In light of the increased presence of professional and technical degree programs and the push towards partnerships with industry to generate new funding and economic spin-offs, co-op researchers sought to reveal how the relationships established through co-op could play key roles. A nascent interest was how co-op could provide conduits to new opportunities for research partnerships; but the main focus was on improving collaborative efforts to better link career interests, labour market requirements, and the academic curriculum (see Carpenter, 2003; Hergert, 2009; Krishnan, 2010; Morris, 2005; Vick, 2001). In each case, researchers

argued for closer integration, using the labour market and employer expectations as benchmarks.

Research that looked at the career and economic outcomes from co-op for different groups of students also gained traction during this period. Walters and Zarifa (2008) brought a gender lens to investigate earning and employment outcomes for female and male students, concluding co-op provided an advantage for all participants, and particularly for females. While this study addressed a historically marginalized group, it did not look at how and why participants were differentially affected because of their gender: the focus was on how men and women could increase their earning and employment outcomes within the framework of existing power structures.

Liberal education perspectives. A primary focus of co-op researchers in the 2000s was on student experiences and learning processes. They placed emphasis on understanding how students integrated, transferred, or leveraged their learning across environments and how to improve these processes to produce more value. This interest reflected the neoliberal push for greater integration between the academic curriculum and the labour market, but did so with a somewhat more balanced view—one that valued learning in and for academic contexts as well as workplaces. An example is the survey instrument Parks, Onwuegbuzie, and Cash (2001) developed to assess co-op students' perceptions of their advancement on four broad dimensions, including academic functioning, personal growth, career development, and career progress. Another example is Brent (2012), who looked at the intellectual resources students in business and arts programs tapped during their co-op programs and found they drew on an array of skills and strategies from their academic experiences, often without knowing. This type of finding supported arguments for liberal arts education, demonstrating how communication (e.g., rhetoric, persuasion) and critical thinking capacities learned on campus add value in the “real” world.⁶ Examples that work in reverse are Mosca, Paul, and Skiba (2007) who conceived co-op work terms as action learning processes that could be deliberately coupled with classroom learning, and Dickerson and Kline (2008) who observed experiential learning could be improved with faculty involvement and related classroom requirements such as reflective writing. There are four other studies in this vein: Donovan et al. (2010), who called for a renewed emphasis on experiential learning; Howard and England-Kennedy (2001), who reported on a learning communities approach; Donohue and Skolnik (2012), who examined the extent of transfer of learning from classrooms to workplaces, arguing deliberate curriculum design could improve transfer and influence how work experiences unfolded; and Saltz, Serva, and Heckman (2013), who described a blended learning initiative that allowed students on co-op internships to simultaneously engage in coursework related to the content of their work experiences, encouraging a reciprocal integration and transfer of learning.

The literature in this period also offered a range of new perspectives on student experiences and learning processes. Some researchers began looking for, and through, the viewpoints of the different types of participants and stakeholders to derive a more nuanced understanding. Wiseman and Page (2001) investigated perceptions of co-op students and supervisors to derive quality indicators to guide better workplace practices. Jeffreys and Lafferty (2012) found employers expected students to find information and students had difficulties doing so because employers did not provide instruction. King (2001) studied co-op supervisors and found some saw themselves as teachers while others were simply interested in job performance and productivity, concluding universities needed to cultivate relationships with the former. In each of these cases, the authors avoided the common refrain of suggesting the university needed to

change to accommodate labour market or workplace needs and instead distributed the onus for improving learning onto various actors, including employers.⁷

Other researchers began looking at learning in co-op in multi-dimensional, humanistic terms. Hofart, Diani, Connors, and Moynihan (2006) found learning outcomes in a nursing co-op included affective as well as cognitive dimensions. Hezlett (2005) also reported emotional learning was augmented, in particular through effective mentorship in workplaces. Jones (2007) explored how students constructed meaning and knowledge, using an open-ended, qualitative methodology that revealed the roles emotions and relationships played in how students experienced co-op.

Ethics came more fully onto the agenda in this period, with an issue of the *Journal of Co-operative Education* dedicated to the topic in 2001. From an administrative angle, Wilson (2001) argued co-op practices had changed over the years, but the essential criterion of educational value as the basis for ethical decision-making had not. Professional and workplace ethics were a key focus, inspired perhaps by the corporate scandals of the early 2000s (e.g., Enron, Arthur Anderson, WorldCom, and Nortel). Mark (2001) looked at ethical issues from the point of view of the workplace and argued students needed training to meet employer expectations. Cates and Dansberry (2004) evaluated and argued for the continued use of a professional ethics module as part of training for co-op placements in engineering. In addition, Cohen (2010) found an ethics workshop strengthened reflective engagement among students but had mixed support from the administration, who believed sufficient ethical awareness was raised through mainstream coursework and compliance initiatives associated with professions. We struggled with how to classify these studies. They were oriented largely to compliance with the expectations of employers and professional bodies, and did not speak to broader LE concepts (e.g., character, virtue) or ELE perspectives (e.g., critique of the operations and effects of power, raising questions of social or economic justice). However, as they pointed to some level of reflective practice, we classified them as LE.

Co-op researchers also began adopting notions of difference. Some began investigating the experiences and results for different groups of students, including those who may be confronted with certain barriers. Raelin, Reisberg, Whitman, and Hamann (2007) compared the development of self-efficacy among male and female students. In another example, Ingram and Ens (2011) highlighted how co-op could contribute to the acquisition of human, cultural and social capital for international engineering students that would provide them with better access to job opportunities in the North American context.

Emancipatory liberal education perspectives. Our search yielded four articles that directly addressed the issue of marginalized groups, suggesting this topic was of somewhat growing concern when compared to the 1990s. We concluded one of these (i.e. Walters & Zarifa, 2008) expressed a predominantly instrumental and economic interest, while another (i.e. Ingram & Ens, 2011) expressed a liberal education concern. This left two studies we felt demonstrated ELE perspectives through their advocacy approach regarding students with disabilities. Burgstahler and Bellman (2009) and Nott and Zafft (2006) looked at co-op in light of the increased access of students with disabilities to higher education and the problem of them experiencing higher rates of unemployment, underemployment, and lower pay compared to their nondisabled peers after graduation. Both authors highlighted the value of co-op for students with disabilities, with Nott and Zafft (2006) revealing how it helped students make important connections in the employment system; and Burgstahler and Bellman (2009) reporting gains in motivation, knowledge, job skills, ability to work, and understanding of

accommodation strategies. The authors argued students with disabilities benefited from co-op even more than their nondisabled peers, but pointed out students with disabilities had difficulty accessing co-op experiences and were often overlooked as candidates. Burgstahler and Bellman (2009) called on universities to provide support services and develop awareness initiatives regarding access issues. Nott and Zafft (2006) argued universities needed to develop clear guidelines to ensure equitable access to experiential education and that students, employers, and universities should all have input on how to provide the necessary accommodations.

These studies are interesting in light of the history of co-op in Canada, which saw initial growth in the 1980s and early 1990s based on government funding to offset the economic marginalization of certain groups, including persons with disabilities, from discriminatory practices in labour markets. With the rise of neoliberalism, the focus on equity gave way to “pure” competition through the use of market mechanisms, including in higher education settings. The negative effects of the ensuing institutional practices are signaled in these studies on the experiences of students with disabilities in and around co-op. Other groups may be confronted with similar or other marginalizing experiences-e.g. Aboriginal persons (Council of Ministers of Education, 2012).

Conclusion

Thus far, scholars have said very little about the role co-op has played or may be playing as part of the neoliberal reform movement that has gained hold in Canadian universities; nor have they addressed the implications of the rise of co-op for liberal education in its various manifestations. This is remarkable given the ubiquity of co-op, the significant attention paid to other reforms aimed at creating such linkages, and the relationships it forges between academic pursuits, markets, businesses and industries. One possible explanation is, in practice, co-op does not connect substantively with the responsibilities of faculty members (Grosjean, 2000). Rather, in most universities, support staff run co-op under the direction of administrators and in relative isolation from the professoriate, who may thus only vaguely feel its presence. Unlike high profile, systemic policy or governance reforms, co-op does its “work” at micro levels: it influences students’ decisions about which courses of study to pursue and affects the formation of their academic and professional identities, values and worldviews. In this, co-op represents a “bottom-up” approach to change.

Our goal has been to bring co-op into the ongoing discussion about the mechanisms by which neoliberal educational purposes and values have established beachheads in Canadian universities and the negative effects this is having on their socially progressive, democratic mission. By viewing the research literature as part of the struggle to establish the institutional legitimacy of co-op, it is possible to see how the questions pursued reflect the interests of various stakeholder audiences, including students, employers, co-op staff, policy-makers, and administrators.

Our analysis revealed a dominant, persistent focus on IEE purposes in co-op, which complemented broader neoliberal reforms such as deregulation and funding cuts, increased use of market mechanisms, and partnerships with business and industry. Many of these studies framed co-op such that all participants and stakeholders were beneficiaries and no one’s interests were in conflict. It is likely this perspective, reflected in current practice (see Table 1), serves as an ideology that masks the competing interests and corresponding political processes through which reform occurs, often incrementally and at micro-levels and with some actors

“winning” and others “losing.” In addition, studies expressing IEE perspectives on co-op almost invariably supported the adaptation of whatever phenomena was under review to the economic regime. A critical eye was rarely cast on labour markets and workplaces, despite vast literatures on their serious problems, such as with discriminatory practices and mismanagement. Calls for change often focused on academic features (e.g. curricula) and actors in the university, not on economic institutions (e.g. labour markets) or actors, mirroring the broader pattern of discourse associated with neoliberal reforms. There were minor signs of change in the 2000s, with some researchers beginning to ask more critical questions about differential effects of co-op for particular groups, such as female students.

Analysis also revealed modern liberal education (i.e. LE) perspectives at play. There has been a consistent emphasis on better understanding how learning processes unfold or could be enhanced in co-op, particularly with respect to the growth of knowledge and its transfer to various contexts including, but not limited to, the employment system. The LE perspective was represented through studies that expressed a substantive interest in understanding aspects of co-op, but not for instrumental or economic reasons. A philosophical strand stood out in the early-to-mid-1990s, replaced in the 2000s with multi-dimensional views on participants’ learning and experiences. These perspectives made it apparent that co-op, similar to other educational endeavours, had the potential to be fashioned to a range of purposes based on underlying philosophies, values and methods. However, the political and practical aspects of pursuing liberal education purposes in co-op have yet to be seriously broached. Moreover, the socially critical, emancipatory outlooks of post-modern liberal education are virtually non-existent. Yet, because such points of view are highly sensitive to issues of identity, difference and power, they hold significant promise for understanding how and where co-op is located relative to other neoliberal reforms, how micro-level processes work in co-op to steer it towards certain purposes, and what negative effects contemporary practices might be having on individuals, fields of knowledge, academic curricula, and institutions.

Some important directions for research exist for those whose interest may now be piqued. The research agenda in co-op could benefit from a rediscovery and exploration of its socially progressive roots, informed by other subfields of educational research where the liberal versus neoliberal debates have been more extensive. Those investigating the threats to liberal education and prospects for its renewal might benefit from the discovery of co-op as a potentially rich site of inquiry. One pressing need is to investigate how contemporary discourses and practices in co-op work to influence educational choices and decisions, academic identities, what “counts” by way of important knowledge, learning and curricular change. Another is to seek a more nuanced view of how policies and processes associated with co-op affect different groups of actors. Here, the application of sociological categories and concepts, such as class, race, gender, ethnicity, ability, sexual orientation, and gender identity would be important, along with a focus on issues of equity, inclusion, and social and economic justice. A third need is to explore how in theory and practice co-op might be reshaped to use its connections with the economic regime for higher order, multidimensional learning processes that support authentic personal growth and broader social, cultural, and democratic aims. This would involve understanding how to reconfigure power relations, such that university-based actors resist their positioning as weaker players relative to labour markets and policy-makers in the state. Each of these avenues for research would involve embracing philosophical and political views of co-op that see it as constructed not only through “co-operation” and consensus, but also through conflict and struggle over educational purposes, values, meaning, and interests.

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Notes

- 1 Various accounts of the development of co-op in the Canada are offered elsewhere (see Haddara & Skanes, 2007; LeBold, Pullin & Wilson, 1990; McCallum & Wilson, 1988; Ryder, 1987; Ryder & Wilson, 1987; Van Gyn & Grove White, 2002).
- 2 The ProQuest database, which is composed of 45 databases including the Educational Resources Information Clearing house (ERIC), was used.
- 3 Search terms started with “coop/co-op/cooperative/co-operative education,” then narrowed with “liberal education/neoliberal,” “higher education/college/university/universities,” “Canada,” “gender/women,” “feminism,” “post-colonial,” “race/ethnicity,” “conflict/discrimination,” “ethics,” “social justice,” and “social class” within abstracts.
- 4 There were 6 column headings: context, purpose, theoretical orientation, methodology, and findings.
- 5 Several themes were discerned in the co-op literature: student learning/experience, economic benefits, co-op theory/program development, stakeholder collaboration, ethics, and social justice/marginalized groups.
- 6 In contrast, Bartkus (2001) examined the development of social skills in preparatory workshops for co-op students and found more emphasis on social skills was needed to prepare students for workplaces.
- 7 In contrast, Fifolt and Searby (2010) examined mentoring in co-op work experiences and found inadequate preparation of students and mentors reduced learning benefits, arguing for better preparation programs.

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