




When logics of learning conflict: an analysis of two workplace-based continuing education programs

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Abstract

Educators, practitioners, and policy makers are calling for stronger connections between continuing education (CE) for professionals and the concerns of workplaces where these professionals work. This call for greater alignment is not unique to the health professions. Researchers within the field of higher education have long wrestled with the complexities of aligning professional learning and workplace concerns. In this study, we extend this critical line of inquiry to explore the possible conceptual intersections between two CE programs acting within a single healthcare organization. Both programs are concerned with improving patient care, primarily by changing the ways professionals think and talk with one another. However, the two programs have different historical origins: one in a workplace, the other within a university setting. Introducing the concept of “modes of ordering” as a way to analyze the curricula, we argue the programs are operating through separate logics of learning. We label these two modes of ordering: (1) *learning as standardization* and (2) *learning as identification*. Through our discussion, we explore how these different modes demand different roles for educators and participants. Ultimately, we argue that both have value. However, we also argue that educators require conceptual tools to sensitize them to the possibility of competing logics of learning and the subsequent implications for their practice as educators. In conclusion, we offer the metaphor of CE educator as choreographer, connecting concepts and practices within these logics in productive ways while continually navigating the various learning imperatives acting on professionals at any given time.

Keywords Continuing education · Professional learning · Workplace learning · Interprofessional education · Patient safety

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Introduction

Historically, continuing education (CE) has operated to update clinicians' knowledge and skill, providing the means to remain current with new bodies of evidence while protecting against the decay of previously acquired competencies (Van Hoof and Meehan 2017). Arguably, the intention of CE has always been to improve professional practice. However, it is only recently that educators and researchers have begun to call for understandings of CE that are oriented towards *outcomes* achieved within the places where professionals work (Kitto et al. 2019; Olson 2012; Schneeweis et al. 2016). This outcome data could include patient outcomes, but also more organizationally-focused concerns such as costs and efficiencies generated through professional practice. With this recent reframing in the practice based and academic literature, CE is being positioned in two ways. First, as mechanism of professional development. Second, as a mechanism to improve patient care and organizational efficiencies.

This call to better align educational interventions with workplace concerns is certainly not unique to the health professions (Bryant et al. 2005). Other domains of higher education have wrestled with the conceptual connections between professional learning, needs of workplaces, and the associated implications for professional work (Billett 2010; Raelin 2007). This body of research has argued that connecting concepts of professional learning to concepts of organizational performance is consequential, creating both intended and unintended effects. In particular, critically minded academics have worried about the implications of educators and researchers taking up the performance concerns of workplaces without the opportunity to critically reflect on the alignments (and possible misalignments) with their own educational philosophies (Bratton et al. 2003; Fenwick 1996; Fournier and Grey 2000; Spicer et al. 2009). For example, educators who have considered their educational practice as emancipatory may experience an uneasy fit with organizationally mandated educational programs (Spencer 2001), even if both philosophies operate under the same vision of improving patient care. Therefore, as the field of CE shifts towards a concern with outcomes generated within workplaces, there is a need for educators to critically consider their own practices, as well as reflect on the beliefs and assumptions that animate these practices. This is particularly important as these educational practices interact with workplaces and workplace concerns. In doing so, educators may thoughtfully determine how they might amplify, negotiate—or even resist—workplace concerns and their influence on professional learning (Fenwick and Edwards 2010).

In this study, we use the concept of “modes of ordering” (Law 1994) as an analytical tool to examine two curricula within one workplace setting: University Health Network. The first curriculum of interest is University of Toronto's *Educating Health Professionals in Interprofessional Care*TM program. The second is University Health Network's *Caring Safely* education program. Through this analysis, we demonstrate a strategy for developing insight into the ways programs of continuing education are operating and how educators may choose to participate in these intersections between professional learning and workplace concerns. Modes of ordering refer to patterns of talk, text, and action—entangled with associated physical apparatuses—that together make up a particular stream of activity. Using this sociologically informed concept, we demonstrate how the two programs share similar aims yet operate according to different logics. Here, logics of learning refer to patterns of thought and practices that, intentionally or unintentionally, shape the conditions of learning (Ellstrom 2006, 2011). This includes explicit and implicit understandings of what learning is, how learning should proceed, and whom learning should benefit. Logics of

learning are inherently related to modes of ordering, as these logics are embedded, entangled, and enacted through the patterns of talk, text, and action held together in particular streams of activity. It is the intersection of these logics and their potential implications for CE educators and participants that we display through our analysis and discussion. In doing so, we aim to open up possibilities for educators to reflect on their practices, beliefs and assumptions, particularly as CE programs take up the concerns of workplaces as both drivers and sources of evidence of professional learning.

Theoretical influences

In this study, we first make use of concepts from Michel Foucault, later from John Law, in an effort to generate insight into our phenomenon of interest. First, we consider all organizations as collections of discourses (Foucault 1970/1981) enacted through various practices and made visible through various texts (Foucault 1982). Here, we are using the concept of discourse as argued by Foucault, where discourses refer to entire systems of meaning that shape what is possible to say, to know, and even to think within a particular moment and place. Foucault's concepts of discourse, power, and identity have already been used within the field of health professions education (Bleakley and Bligh 2009; Hodges et al. 2014; Rowland and Kitto 2014). In this study we engage with the concept of discourse at a different level, using the concept to explore micro-practices of *ordering* within organizations. Here, modes of ordering are recognized as various assemblages of coherent ways of thinking that are not simply spoken, embodied, or performed by people, but also act through—and recursively organize—a full range of materials within the organization. Thus, Law's conceptualization of modes of ordering depicts these modes much like mini-discourses operating in the organization, where these mini-discourses participate in ongoing—and sometimes conflicting—attempts to constantly order and re-order the organization. The analytical implications of this conceptual framing are multifold and have been productively summarized by Law (1994, 2003, 2008). First, we treated discourses as patterns made visible through social and material networks. Second, we looked for discourses in the plural, not the singular. Third, we treated discourses as ongoing attempts at ordering, not orders. By this we mean that we did not consider these mini-discourses as fixed, but viewed them as being constantly negotiated and re-negotiated. Fourth, we attended to how discourses were performed, embodied, and told in different materials. Finally, we attended to the way discourses interact, change, or became extinct.

Methods and methodology

Taken together, the two curricula serve as embedded cases, where our phenomenon of interest is the conceptual intersection between discourses of professional learning operating within a single organization (Ragin and Becker 2009). Our methodology is not sufficiently described through reference to a single source. Instead, we use Crotty's (1998) strategy of scaffolding to describe our research process, referring to the coherent conceptual layering of epistemology, theoretical orientation, methodology, and methods. Our descriptions of theory, methodology, and methods are spread throughout this section, such that the entire paper reveals our conceptual framing (Maxwell 2013). To briefly summarize: our epistemological positioning is social constructionist, our theoretical positioning is within the

domain of interpretivism, our methodology fits within a wide interpretation of discourse analysis (Kendall and Wickham 2003), and our methods consist entirely of text analysis.

Describing the curricula

We chose the two sets of curricula because they: (a) were offered within the same workplace and therefore share the same pool of potential participants, (b) shared an overarching aim of improving patient care, primarily by changing the ways professionals think and communicate (i.e. were not about procedural skills but were in the domains of professional, communicator and collaborator roles), and (c) have different historical origins. The first program of interest is University of Toronto's Educating Health Professionals in Interprofessional Care (ehpic™), originally developed by the University of Toronto's Office for Interprofessional Education (IPE) and a team of health professions educators that span the various health sciences faculties at the university. This is a voluntary program, offered to an international audience. The goals of the program include building capacity for practicing professionals to develop competencies associated with collaborative practice *and* increasing capacity to teach the concepts of interprofessional collaboration (see Table 1 for a summary). The second CE program of interest is University Health Network's "Caring Safely" education. University Health Network (UHN) is a group of health service organizations fully affiliated with University of Toronto. The Caring Safely education program is part of a larger, organization-wide initiative to improve patient safety at UHN. In this larger endeavor, education is considered one stream of activity that will support, enable, and reinforce the broader aspiration to reduce all preventable harm within the organization. Within this education stream of activity, there are several elements. Of interest to us in this study was just one element: the design and implementation of an organization-wide Caring Safely curriculum. The Caring Safely curriculum is a mandatory program, offered only to the physicians and staff within UHN (see Table 1 for a summary).

Archive

This study was designed to focus entirely on texts generated by—and through—the process of curriculum development and delivery. For the ehpic™ curriculum, our research team was given access to both the regular and customized editions of curricular material from the years 2006–2017 and 2011–2017 respectively. Each module contained an average of 95 slides, ranging up to more than 150 slides. With five modules offered in each session, this resulted in approximately 750 slides per session and approximately 20,250 slides available to review. While we read all curricular materials made available, to manage the scope of this manuscript while presenting contemporaneous material, we offer exemplar quotes from just one session: ehpic™ 2017. For the Caring Safely program, our team had access to the inaugural year of curricular delivery: 2017–2018. We had access to the facilitators' slide decks and associated notes, consisting of 63 slides. To augment our understanding of the Caring Safely curriculum, we also reviewed all materials included on the Caring Safely website as recommend readings ($n = 25$ books) on concepts of high reliability organizations (e.g. Weick and Sutcliffe 2015; Weick et al. 2008) and the associated leadership strategies being endorsed within the organization at the time (e.g. Nance 2008). In the presentation of our analysis, we use the following notation practices: CS refers to Caring Safely curriculum while the number listed corresponds to the slide and the modifier "FN" indicates that the text is located in the "facilitators' notes". Materials from the ehpic™ curriculum are

Table 1 Describing the two curricula

	ehpic™	Caring safely
Development	Originally developed by University of Toronto's Office of Interprofessional Education (now the Centre for Interprofessional Education) and educators/clinician-educators from a range of health science faculties	Developed in collaboration with Healthcare Process Improvement, a consultancy located in the United States with expertise in "high reliability organizations"
Aims	Positioned as both Faculty Development and Continuing Professional Development, the overarching aim is to enhance leadership abilities to teach interprofessional education and to practice interprofessional collaboration	Based on the principles of "high reliability organizations", the curriculum is intended to equip workers with knowledge, skills and values consistent with a suite of safety behaviours and error prevention tools being implemented throughout the organization
Format	In person sessions. Option of choosing a five-day session or developing a customized three-day session	In person sessions, three-hours in duration. Accompanied by ongoing organization-wide strategies to reinforce content delivered during the sessions
Intended audience	Voluntary participation from Clinical educators, clinical practice leaders, faculty development leaders, administrators, and any individuals/team with interest in interprofessional education and practice	Mandatory requirement for all staff, students, and physicians within the hospital network. This hospital network is fully affiliated with University of Toronto
Participants	Team based participation is recommended. Participants are encouraged to apply as an interprofessional team with a minimum of two professions	Individual participation. All staff and physicians required to complete a single 3-h module. All formal leaders required to complete 6 additional 2-h modules
Faculty development	An immersion and socialization process consisting of: inviting and coaching past ehpic™ participants, participation in ehpic™ planning and, ongoing group Faculty reflection, briefing and debriefing	A train-the-trainer approach with extensive training materials and an orientation session for prospective Caring Safely educators

noted by the letter “e”, the year the curriculum was delivered (2017), the module number (M), and the slide number (S).

Ethical considerations

Prior to commencing the study, we provided a brief proposal of our intended study activities to our governing Research Ethics Board (REB). Given that the study was designed as a text analysis and did not involve human participants, it was considered exempt from the need for REB approval. We received a letter of waiver and did not proceed with a full REB application process. However, the absence of the need for REB governance does not mean that there was an absence of ethical considerations. Questions of intellectual property and distribution rights are likely to pervade many CE programs, given that many are designed within either for-profit or cost-recovery models. Therefore, the primary ethical consideration in this study was one of access to the texts, particularly texts with potential value as intellectual property. In this study, we navigated this through careful negotiation prior to accessing any texts, we treated all texts with the same care for confidentiality that we would with any other form of research data, and we have been circumspect with the amount of detail we relay about the specific content of either program. The decision to identify both organizations was made in collaboration with both study sites, in recognition of their authorship of the various curricula. Further, prior to submission for publication, we provided drafts of this manuscript to both involved organizations, inviting decision makers to ensure that the representations of their programs are factually accurate and the level of detailed description contained within this manuscript is appropriate for distribution within the public domain. This does not imply that the organizations shaped or restricted the analytical process or conclusions presented, but it does ensure due diligence around the ethics of accessing texts that—while widely distributed—are not entirely within the public domain.

Researcher stance

Deliberately so, all but one of our research team members has participated in both sets of curricula in various roles: consultants, participants, faculty, and as researchers engaged in other related projects. Those observations certainly influence how we individually and collectively make sense of the current data set. Our various experiences with both curricula elaborate, complicate, and enrich our understanding of the texts.

Analytical strategy

We analyzed the curricular material using principles of abductive analysis as described by Tavory and Timmermans (2014). Abduction refers to the process of developing theoretical insights through a careful and systematic analysis of variation across a data set, using an iterative process of note taking, memo writing, and coding of the material to explore unexpected findings. In this study, we were first sensitized by Foucault’s concepts of governmentality. The concept of governmentality connects Foucault’s concerns with knowledge, power, and identity, drawing attention to the ways we govern ourselves (and others) by what we consider to be true (Foucault 1991). To that end, we used an analytical framework (Dean 2010) to direct our attention to what was being made visible, what forms of identity

were being presented, what techniques or technologies were being put to use, and what forms of knowledge were being privileged in each set of curriculum. However, rather than explicating a single mechanism of governing, we interpreted (at least) two modes operating simultaneously within and between the curricula. Therefore, through the iterative process that is favoured in abductive analysis, we worked with the curricular materials in relationship to a broader range of social science theories and established a connection to Law's concept of modes of ordering. Again, through a process of note-taking, memo-writing, and coding we began to organize our analysis of talk, text, and action in such a way as to explicate multiple modes of ordering operating through the curricular material. The sensitizing questions we asked at this stage in the analysis were informed by Law (1994, p. 140): How are various modes displayed? How are they patterned? How are they related to other ordering patterns? These acts of analysis were led by the first two authors, with these authors bringing analytical insights to the broader research team for discussion and debate. Through this discussion and debate, we actively sought variation and instances of negative cases within our data set that would disrupt our emerging theorizations. This process continued until the research team agreed that the analysis as presented fit three criteria of rigour: relevance (the theoretical claims made matter to a broader intellectual community), plausibility (the theoretical claims being made are stronger than those that would be made under a competing theory), and fit (the theoretical claims being made are supported by the empirical material) (Tavory and Timmermans 2014).

Finally, a comment about the boundaries of this study. In this study, we limited our data-set entirely to curricular materials. We are well aware that curricular materials are not the entirety of a curriculum. There is much that we do not know—or cannot say—about what actually happens within these curricular spaces. Appropriately so, as we are bounded to the ethics of this study and cannot report on observations and insights generated outside of the parameters of the agreed upon research design. Certainly, an observation-based study would be well suited to fully delve into the richness made possible through the conceptual tools we introduce in this paper. In this study, we have limited ourselves to introducing these concepts, demonstrating how they help to generate insight about CE programs, and advocating for their greater uptake in the field of health professions education.

Analysis and interpretation

In this section, we present our interpretation of two modes of ordering operating within and across the two curricula. We have labelled these two modes according to their animating logic of learning: (A) *learning as standardization* and (B) *learning as identification*.

Learning as standardization

In this mode of ordering, the aim of learning was to generate *reliable* and *repeatable performances* that are consistent with the declared aims of the organization. This notion of “reliability” pervaded the Caring Safely curriculum, serving as a focus point in the session's title slide: “Making Reliability a Reality” (CS-1) and acknowledged as an organizing principle of the entire change imperative. Concepts of reliability were implied through reference to consistent or standardized performances. Here, the explicit focus was on creating the kinds of safety behaviours that would result in consistent (and therefore reliable) reductions of preventable errors. This was to be accomplished

through the introduction—and practice—of ten “error prevention tools” associated with five specific safety behaviours. Five of these tools provided structured strategies for communication. As part of the session, participants were required to review a tool, read a case scenario, discuss in pairs how the error prevention tool should be applied, and then discuss the exercise as a part of a larger group. This pattern of “practice and discuss” was repeated for all behaviours and tools. Participants were also to be told that the training session was not the end of the safety initiative, but the initiative was “all about practicing these new behaviours that will help prevent us from making errors” (CS-58FN). Thus, participants were told to continue to review these tools with team members, to coach one another, and to expect “leaders and coworkers to reinforce our behaviour expectations and help build our accountability for practicing them”. A visual near the very end of the slide deck provided a graph depicting a learning path—from awareness to skill acquisition to habit formation to performance—where performance would be aligned with “the brass ring: zero events of harm” (CS-58).

This ordering principle of standardization was not only a desirable outcome of the curriculum, it was also apparent in the design of the curriculum itself. The pattern of tool introduction, practice, and discussion was repeated with great visual and verbal consistency, relaying a standardized approach to content delivery. Facilitators’ notes in the presentation materials were extensive, explicit, and detailed. In addition to providing direction about how to deliver the content, these notes contained advice on how to address possible questions that might emerge from the participants. From discussion with Caring Safely education program leaders, we understand that there was a continual effort to update—and support—facilitators as the program implementation evolved over time. Thus, there was not just a standardized approach to content, but also an attempt to advise (and possibly standardize) the style of the facilitators themselves in ways that were consistent with the entire change initiative. From our reading of the course material, we also interpreted an imperative for the facilitators to ensure that all course material was delivered within the allocated time. Given the ways that participant accountabilities are introduced towards the end of the presentation (i.e. participants are accountable for acquiring skills associated with all the error prevention tools), the associated implication is that facilitators can—and must—reliably deliver content on all the tools as part of this curriculum.

While the facilitators were constructed as (consistent) mediums of content delivery, the participants were constructed as rational and concerned actors, embedded within conditions of risk. This is evident in the introductory slides of the Caring Safely curriculum, where the problem of safety was framed in terms of the prevalence—and financial cost—of preventable harm in a healthcare setting. The problem was framed as large and far reaching and also holding great local importance, with statistics of preventable harm presented at a national level and grounded in hospital specific data. Having developed a rationale for the importance of some kind of change, the material shifted to frame Caring Safely curriculum as one element of the proposed solution: setting expectations and acquiring skills to “reduce and where possible **ELIMINATE THE RISK** that leads to errors and harms” (CS-15FN, emphasis in original). Of note, just as the facilitators were constructed as somewhat interchangeable, there was also no distinction between the participants. All of the content was framed as equally applicable and relevant to all members of the potential audience, regardless of their role in the organization. Every potential participant was constructed as responsible for learning and adopting these “low-risk behaviours that could be employed in a high-risk environment” (CS-13FN).

Learning as identification

In this mode of ordering, the aim of learning was to create *sanctioned subject positions* whereby participants identify with a specific set of values as a means to become a particular kind of professional. This notion of learning manifested predominantly in the ehpic™ curriculum. While learning as standardization certainly has implications for participant (and faculty) identity, that mode of ordering primarily works through the acquisition of sanctioned tools, rules, and behaviours. In contrast, learning as identification operates primarily through identity work by way of the incorporation of certain values. The intended impact on performance is distal—mediated through concepts such as self-reflection and personal development—rather than through the immediate acquisition and repetition of particular communication tools. This is a distant form of governance (Rose 1999), whereby participants are invited to take up a certain kind of identity and continue to work on their sense of self in ways that align with that identity. For example, the declared goal of ehpic™ is to “develop leaders who have the knowledge, skills, attitudes and behaviours to teach both learners and fellow colleagues the art and science of working collaboratively for patient-centred care (e2017-M1S2). The final slide of the same module invites participants to end the full day session with following question: “As you reflect upon your experiences today, what are you learning about yourself as a professional and educator?” (e2017-M1S146). The ehpic™ curriculum also supplies examples of the central and explicit role of values in this mode ordering. In module 2, certain values were presented as foundational to interprofessional collaborative team functioning, listed as: “relational-centred, diversity-sensitive, accountability, respect, confidentiality, trust, integrity, honest, ethical behaviour, equity” (e2017-M2S27). The same subset of slides also reinforced the individual’s responsibility to exhibit these values, referencing concepts of responsibility and team processes (e2017-M2S29, S30). Further, in this mode of ordering, the call is not simply to exhibit consistent behaviours, it is to authentically inscribe these values into one’s own self.

While the preceding paragraph cited many examples from the ehpic™ curriculum, these quotations must be approached with an understanding of the overall pedagogical design. Of note, the curricular materials from ehpic™ were copious. Every ehpic™ module had multiple sets of presentation materials with evident modifications between them, ranging from minor to substantive from session to session. Further, every year that ehpic™ has been delivered generated a new set of curricular materials. While there were several concepts and visualizations that persisted across the years, the overarching pattern was one of continual revision. The lack of facilitator notes was also a striking feature of the presentation materials. Indeed, many slides consisted entirely of images with no text at all.

Despite a lack of facilitator notes, there was an element of consistency across the curricular materials from year to year. Therefore, we engaged with this phenomenon as a display of pedagogical philosophy and thereby further elaborated our understanding of modes of ordering. The presence of consistency in the absence of facilitator notes led us to look elsewhere for mechanisms of reproduction. Here, our attention was directed away from the curricular materials and instead to the extensive faculty development work that accompanies each iteration of ehpic™. As summarized in Table 1, ehpic™ Faculty are carefully invited and all prospective Faculty members are mentored and coached by existing Faculty members. This process happens before and after each ehpic™ session. There is also intensive attention to structured reflection between Faculty members during each session, with

nightly briefing/debriefing occurring within the Faculty group as a means to shape the next day's facilitation strategy. Further, there is an explicit expectation that Faculty members will role model the interprofessional values inscribed into the curriculum itself (e2017-M1S19). These expectations are also visible in the curricular materials, where the final module of ehpic™ states “the role modelling of collaboration cannot be an act—it must be lived” (e2017-M5S11).

These observations further elaborated our understanding of the mode of ordering “learning as identification”. To demonstrate the contrast, the Caring Safely curriculum had detailed and extensive facilitator notes, a single slide deck, and a singular authorship voice. In the Caring Safely example, standardization of the curriculum was activated through the curricular materials. In contrast, the ehpic™ programs achieved consistency through the Faculty, rather than through consistency in curricular materials. We came to understand the logic of reproduction as actualized through learning through identification, where participants and faculty members are invited to become the kind of professional that exhibit the values and behaviours associated with interprofessionalism as it is conceived in this program (Table 2).

Having engaged in the process of analysis and consequently constructed two modes of ordering for presentation and interpretation, there is a risk that that these modes of ordering may be perceived as ideal types mapped onto the two curricula. While the modes of ordering we describe do have particular affinities with one set of curricula over the other, neither is entirely contained to just one program. Instead, the two modes of ordering we discuss are discernable to a greater or lesser extent in both curricula. For the purposes of this paper, we present them as distinct. In practice, there is far more overlap.

Discussion

Throughout this study and our subsequent analysis, we recognized the internal coherency of each program. It is entirely sensible that a program aimed at improving interprofessional collaboration is characterized by learning as identification. It is also entirely sensible that a program oriented towards reliable performance is, in of itself, a display of reliable teaching performances. Our analysis does not dispute that sensibility. Nor are we attempting to argue a preference for one mode of ordering over another. Instead, the aim of the following discussion is at a higher level of abstraction. We treat these two programs as displays of discourses of learning, both operating within the same organizational space and oriented towards similar concerns of professional performance. In our analysis, we displayed how different logics of learning operate, using the two sets of curricula as sites to explore and make visible these logics and associated modes of ordering. In this discussion, what we seek to display are the tensions between competing conceptualizations of the nature and purpose of professional learning within organizational spaces and in relation to organizational concerns. These discourses potentially compete for the attention and resources of decision-makers (Cohen et al. 1972, 2012) and for the subject positions of participants in these education programs (Rhodes and Scheeres 2004). In the following sections, we explore the possible implications of these logics of learning operating within the same organizational space. To develop this argument, we turn to associated bodies of literature.

Table 2 Summarizing modes of ordering

	Learning as standardization	Learning as identification
Aim of learning	To generate reliable and repeatable performances	To become a particular kind of professional that embodies specific sanctioned values
Implications for curricular design	Standardization of curricular content and an associated responsibility for all materials to be delivered in the time allocated	Emergent design and an associated implication to be responsive to evolving dynamics in the room
Subject positions for instructors/facilitators	Standardization of instructors achieved through “train the trainer” approaches and extensive instructor notes included with curricular material	Consistency among facilitators achieved through faculty development involving mentoring, coaching, and on-boarding of new faculty
Subject positions for participants	Rational and concerned	Reflective and committed

Implications for professional learning: negotiating multiple modes of ordering

Where the purpose of professional learning is conceptualized as the mastery of certain activities for the express purpose of improving tasks or routines that are essential to the work, learning as standardization predominates. In contrast, when professional learning is conceptualized as development—achieved through identification—there tends to be an associated call for reasonable risk-taking, the acceptance of failures, and the need for sufficient scope and resources for professionals to experiment with and test alternative ways of acting in different situations (Ellstrom 2006). Thus, these logics end up in tension with one another, suggesting alternate models of professional learning and behaviour. This observation is consistent with other studies of workplace learning that demonstrate how training programs in modern organizations display different, ambivalent, and at times competing learning discourses of how workers should “be” in their workplace (Rhodes and Scheeres 2004). These differences manifest *within* training and educational programs, not just between programs that are mandatory and those that are optional professional development.

When these modern and post-modern logics are mixed, professionals receive conflicting messages. Professionals are expected to be consistent, but also innovative. They should think critically, but should also be compliant with organizational imperatives. They should direct their own learning, but they should not deviate from the curricular plan designed for them. Drawing attention to these conflicting logics does not valorize one logic over the other. Logics of standardization and logics of development serve a purpose in professional learning and indeed, for ongoing organizational performance (Ellstrom 2006). However, recognizing these logics and their interactions does require a reframing of the purpose(s) and place(s) of continuing education as a means of professional learning. This is the first implication of our study: educators need to consider that professionals are not only tasked with learning throughout their careers, but are also compelled to sort through many competing claims on what should be learned, how learning should proceed, and whom learning should serve (Nerland 2018).

The second conceptual implication of this study follows from the first. If educators must consider what professionals need to learn and also how they sort through competing learning imperatives, they require conceptual tools that allow them to appreciate these competing imperatives and negotiate their effects. In this study, we chose the concept of modes of ordering to help explore these competing imperatives, how they were conceptualized and how they materialized. Implicit in our conceptual framing is an understanding of professional learning as not only a function of the individual, but as held within an entire system of ongoing professional production (Felstead et al. 2009). We are arguing that the shift to move CE closer to the concerns of workplaces is consequential. Further, this shift requires the conceptual work of deeply engaging with sociological concepts of professionals, professionalization, and professionalism (Evetts 2014). There is something important to understand about the nature of professional learning that cannot be entirely captured through a focus on the individual learner. In a sociological understanding of professionalism and professional learning, there is an appreciation of entire systems of professional production, comprised of the intersections (and possible tensions) between educational institutions, workplaces, and professional associations (Felstead et al. 2009). Each of these actors lay particular pathways for how professionals are to develop and what they should learn. Adding to the mix are patients, publics, technology vendors, and local communities of practice all inciting (and sometimes requiring) professionals to learn differently. When

considering this host of actors, it is unlikely that all will agree on learning priorities, even if they share similar overarching aims (Hordern 2014). Therefore, professional learning can be conceptualized as an individual accomplishment, but *also* as a reflection of shifting, contested, and constantly renegotiated learning priorities that are navigated in a complex social system of interconnected actors (Elkjaer and Brandi 2014). If we are to advance the field of CE in the health professions, sociological understandings of professions and professional learning are a necessary complement to the existing research traditions currently dominating the field.

Concluding thoughts

Through this study, we have problematized the common-sense notion that aligning CE programs with workplace concerns will be simple. Even when CE programs share similar overarching aims (e.g. patient safety), the ways the programs are conceptualized generate possible tensions for individuals who must sort through competing imperatives on how to be a good professional and how to be a good educator. Through this analytical work, we have displayed the value of considering professional learning as emerging within a systems of professional production and governance, where many interconnected actors have an invested interest in what, how, and why professionals learn throughout their careers (Felstead et al. 2009; Gherardi and Perrotta 2014; Hordern 2014). Once we acknowledge these systems are not unitary (with all actors sharing the same goals) but are instead pluralist (with different interests sometimes coinciding, sometimes conflicting), educators and researchers can begin to examine the different investments and outcomes of CE (Spencer 2001). For instance, in our study we displayed a health care organization as a discursively crowded space with its own logics of learning that may or may not align with the logics historically animating CE programs. This conceptual framing allows educators and researchers to be sensitized to the possibilities of tension. We do not mean to imply that these tensions are intrinsically or essentially problematic. Organizations are constantly characterized by various tensions (Cleland et al. 2018). Indeed these tensions and their resolutions may be productive of certain kinds of expansive learning (Engeström 1999, 2008), requiring individuals and professions to consider entirely new ways of thinking and practicing. Thus, there may be important and creative possibilities within domains of learning that sit in the intersections between the identity development that individuals engage in as members of their profession and as members of their workplace (Elkjaer and Brandi 2014; Evetts 2013, 2014; Heraclous and Hendry 2000). However, taking this sociological perspective also invites the consideration of another potential. There is also the possibility that shifting the field of CE to be better aligned with the performance concerns of organizations may be accompanied by a shift towards the learning logics that tend to predominate in organizations. Here, there is a risk that concepts of lifelong learning may tilt towards immediate organizational concerns and the associated logics of efficiency and performance (Fenwick 1996; Frost 2001; Links 2018; Spencer 2001). This kind of shift may have unintended consequences for the longer-term development of professionals, professions, and the various institutions, clients, and members of society that are reliant on professional knowledge development.

To this end, educators may find themselves choosing between a binary: either amplifying or resisting workplace concerns and their possible influences on professional learning. Alternatively, CE educators may begin to see themselves as choreographers (Thompson

2005). Here, the term choreography refers to the dynamic coordination of the technical, cognitive, and political aspects of CE. This latter aspect requires careful consideration of different orders of professional learning (learners as members of their profession, learners as employees of workplaces). These orders—with their various logics, implications, and imperatives—must be deftly negotiated in service of the ultimate performance: creating better patient care.

While the metaphor of choreographer is appealing, there is a leap from the concept of choreography to the subject position of choreographer. Namely, to identify as a choreographer is to suggest that one can both (a) perceive and (b) coordinate these competing logics. However, as we have demonstrated in this study, those conditions may be difficult to achieve. Much about these logics are implicit, powerfully entrenched, and incommensurate with other logics. Further, the educator may also be an unknowing subject (Foucault 1982), caught up in various modes of ordering without the opportunity to analyze how they are working, what they create, and what they disallow. To make these dynamics visible, we argue for a reflexive basic research agenda that seeks to explicate how CE programs are actually operating, interacting, and producing knowledge within specific contexts (Kitto et al. 2012). The kinds of conceptual tools used in this study offer a promising analytical lever for this kind of *relational* (Latour 1993; Schinkel 2007) understanding of professional learning and continuing professional development. This has been the primary aim of this study: to demonstrate one theoretically informed strategy for developing insight into the ways programs of education are operating in the intersections between professional learning and workplace concerns. The underlying aspiration is to foster the capacity to reflect on how knowledge is produced and how educators are implicated in these systems of knowledge production.

Thus, within the metaphor of choreographer, we invoke the notions of connection and navigation: educators connecting concepts, practices and logics in productive ways. To do so requires the kinds of skills already well discussed within education literature: refining technical aspects of delivering CE programs, engaging in scholarly approaches to design and evaluation, and developing one's own practice as an educator. These skills will remain important within the field of CE. However, as the field of CE continues to expand its boundaries, we argue that these practices of connection must be complemented by a reflective stance. To fully animate this metaphor of CE educators as choreographers, educators must also have the conceptual tools necessary to sensitize them to the possibility of competing logics of learning and the subsequent implications for their practice as educators.

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