

# Online Learning for Early Childhood Education Students

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## Executive Summary

The Ministry of Children and Family Development (MCFD) holds statutory decision making for the Early Childhood Educator Registry – the regulatory body responsible for recognizing post-secondary institutions offering preservice early childhood education (ECE) programs and certifying program graduates in British Columbia. With the end responsibility of ensuring the safety and well being of the children under the care of early childhood educators, MCFD holds a vested interest in exploring possibilities for preservice ECE curriculum and effective modes of delivery for students in the province.

Historically, the field of early childhood education has been sceptical of online preservice education, largely due to concerns about how the teaching the art of relational care can be facilitated in a virtual environment. Indeed, the field has been referred to as ‘high touch, low tech.’ However, long-standing “no significant difference” research comparing online and face-to-face graduates seems to have shifted the debate – not *if* preservice education can be facilitated online, but rather, how *best* to do this. With six schools in the province offering fully distance (online) programs, this certainly seems to be the case in BC. With more and more students opting to complete some or all of their preservice education online, MCFD has identified online teaching and learning as an area of immediate interest for the province. Research garnered from an extensive literature review and cross-jurisdictional and cross-disciplinary scan revealed numerous questions, tensions and possibilities for online preservice education in BC.

This report begins by exploring how online delivery of preservice ECE courses and/or programs fit within the larger (legislation, policy, etc.) context of higher education. It is clear that service-delivery level decisions cannot (and should not) be made outside of larger standards – and questions – in the field. Online course design, like all other forms of course design, must begin with the end in mind: *achieving learning outcomes for program graduates*. Thus, decisions about specific learning activities and the online platforms and technologies that support them should be the final step in course design, *after* the foundational step of identifying learning outcomes. However, the latter is a complex endeavour in BC ECE, where foundational questions about the purpose of the early childhood field – and thus, the roles and competencies of the educator – are under intense debate, with the BC ECE Entry-to-Practice (competencies) project still in flux. As such, this report invites exploration of questions related to both the *purpose of early childhood education* as well as the *purpose of online delivery*:

- **What exactly is it that educators are being prepared for?**
  - What is our BC ECE ‘ethos for the times’?
  - What is our collective vision for educators, children, families, and communities?
  - How are preservice educators assessed to be ‘competent’ for entry to practice?
- **Why are courses or programs being delivered in an online modality?**
  - Recruitment, flexibility/accessibility, and/or cost savings?



- Is it a choice positioned second to face-to-face delivery?
- Or, is it an intentional first choice to support innovative 21<sup>st</sup> century knowledges, skills, pedagogies and digital literacies?

Aligning with the visionary statements set forth in the *BC Early Learning Framework*, this report draws on research that posits that education – and thus, curriculum – must be emergent and co-constructed; an ongoing process of inquiry, discovery, and transformation. This is in stark contrast to conceptualizing and delivering preservice education as ECE ‘training’ – a view that is resisted by many educators in the field who advocate for recognition of the complexity of their relational work. Indeed, the former view of education is highly congruent with early childhood pedagogies. A sense of pedagogical congruency is significant for supporting ECE instructor identities of ‘walking the talk’ or ‘practicing what they preach.’ In order to foster pedagogical congruency for online instructors and thus support the creation of quality online courses and programs, this report posits that it is not simply a new set of technological tools that is required, but rather **a new mindset, or way of thinking**. This creates space to support innovative and cutting edge *Scholarship of Teaching and Learning* (SoTL) research endeavours that position the *instructor-as-researcher*; an approach that necessarily positions innovative pedagogies that support inquiry into student learning *before* the choice of technological tools.

At the service-delivery level, this report explores recommended strategies and promising practices that mitigate online delivery challenges (which include: *instructor skill level, roles, and time demands; decisions around Learning Management Systems; security; decisions around synchronous and asynchronous technologies and delivery; institutional responsibilities; barriers to student learning; barriers specific to Indigenous student learning; enacting place-based education and pedagogies in an online sphere; and practicum*). Resulting considerations for institutions, instructors, and for MCFD are summarized in *Section 12*. Following recommendations from the International Council for Open and Distance Education that quality assurance frameworks should be *dynamic, multifaceted, mainstreamed, multifunctional and representative*, three e-learning frameworks meeting many of these criteria are outlined. With particular inspiration from the perspective workbooks of the New Zealand e-learning guidelines, this report culminates with a recommendation for MCFD to consult and collaborate with provincial stakeholders in the creation of a Reflective Online Learning Framework to use in their institutional recognition process – a framework intended to invite lively dialogue and encourage meaningful critical reflection for instructors, course designers, and government in the process of quality assurance. This extensive report is intended to serve as a guiding document (and supporting evidence) for consultation and collaboration on a Reflective Online Learning Framework – moving away from a yes/no ‘checklist’ approach, and towards in-depth critical reflection. It is suggested that consultation and collaboration on this project should move forward in tandem with, or following the creation of an Institutional Guiding Document through the ECE Entry-to-Practice project.



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## 1. Introduction

All jurisdictions in Canada (with the exception of Nunavut and Northwest Territories) “have legislated requirements outlining post-secondary training and/or experience for early childhood educators” (Child Care Human Resources Sector Council, 2009a, p. 18), as there is a “compelling body of evidence to demonstrate that specialized post-secondary training in early childhood education contributes to the quality of early childhood programs and ultimately to better learning outcomes for children” (p. 65). In British Columbia, the Early Childhood Educator Registry through the Ministry of Children and Family Development (MCFD) is the provincial body responsible for recognizing post-secondary institutions offering preservice early childhood education (ECE) programs (see *Section 6 Key Terms and Concepts: Recognized Institutions* for more details). With a growing number of BC students opting to complete some or all of their ECE certification requirements online, multiple branches at MCFD (*Child Care Programs and Services, ECE Registry*) have identified online delivery of preservice ECE courses and programs as an area needing further research for MCFD to consider in their multiple roles in supporting early childhood education instructors, students, and the children and families that ECE program graduates will ultimately work with.

### 1.1 Purpose

The purpose of this project was to gather information about what is currently known about the challenges and opportunities for delivering preservice early childhood education online in the specific context of British Columbia. Specifically, this project sought to explore the questions:

- How does online delivery of preservice ECE courses and/or programs fit within the larger context of higher education and early childhood education in BC (legislation, policy, etc.)?
- What are the challenges of delivering preservice ECE courses/programs fully online?
- What are recommended strategies and promising practices that mitigate online delivery challenges?



## 2. Methods

Two complementary research activities – a literature review and cross-jurisdictional/cross-disciplinary scan – were undertaken and analyzed through a hybrid framework that considers “the ‘P’s of **purpose, pedagogy and practicalities,**” (Sutherland-Smith & Saltmarsh, 2010, p. 65, emphasis added) in online preservice early childhood education as an embodiment of **knowing, doing, and being in context** (White, 2007) (see below in *Section 3: Conceptual Framework* for more details).

### Literature review

First, a broad scan of the relevant literature pertaining to the online delivery of preservice early childhood education training was undertaken, with a search using the keywords “early childhood education” OR “early years” AND preservice AND online OR e-learning OR distance OR distributed. Through this search, it became clear that the vast majority of research exploring online preservice early childhood programs have centred solely on *student perception* of satisfaction and effectiveness of course or program (see Young & Lewis, 2008) and *student perception* of the effectiveness of the online learning system (see Heirdsfield et al., 2007). While student satisfaction is, of course, still vitally important and is peripherally related to the current study, larger questions about effective pedagogies and delivery methods for meeting ECE learning outcomes are most important from the quality assurance perspective of the Ministry of Children and Family Development. As such, the research question that became the focus of the systematic literature review was: *what are the challenges of delivering early childhood education online?* Databases connected to University of Victoria’s Academic Search Complete, CBCA Complete, Google Scholar, JSTOR, EBSCOhost, Lexis Nexis Academic, and SAGE journals, were employed to conduct a search based on the keywords “challenges” AND “early childhood” AND “online delivery.” Documents published in English, over the last ten years (2007-2017) from Canada, Aotearoa/New Zealand, Australia, USA, and Europe were reviewed, including reports, theses, dissertations, and scholarly research. Grey literature was accessed via Google search.



### Cross-jurisdictional and cross-disciplinary scan

Second, in order to complement the literature review, existing programs and policies across jurisdictions and disciplines were reviewed. Aotearoa/New Zealand and Australia in particular were two jurisdictions that were actively sought out, as both countries were consistently noted throughout the early childhood literature as being at the forefront of online learning practices in the field.

In both the literature review and scan, there was a dearth of information regarding the practicum component of preservice early childhood education. As such, information pertaining to online facilitation of practicum experiences in other health and human services fields (including kindergarten to grade twelve education, nursing, and counselling) was scoped and is thus included in the discussion in *Section 9.9: Practicum*.

## 3. Conceptual Framework

It is extremely important to acknowledge that in the field of early childhood education, “we have our own personal and professional blurrings of experience, knowledge, and competence,” and how this “will impact upon our research, (i.e., what the research is and how the research is done) are key matters” (Rhedding-Jones, 2007, p. 209). As Robertson and Doyle-Jones (2015) note, the “analysis of public policy is an important process and an essential element in democratic society,” (p. 65) and that this analysis – particularly educational policy analysis – is one that is value-laden. Indeed, while the topic and data collection methods were proposed by the Ministry of Children and Family Development, my approach to this project is informed by and made my own by my personal location in the field of early childhood education – immersed in and informed by the reconceptualist early childhood (RECE)<sup>1</sup> movement which “uses postfoundationalist ideas to challenge the view of early childhood educators as neutral and situated in apolitical contexts” (Pacini-Ketchabaw, Nxumalo, Kocher, Elliot, & Sanchez, 2015, p. 211).

Miller (2017) explains how the reconceptualist movement “has been pivotal in deconstructing how developmental frameworks uphold white, western, middle class values and norms for teaching and learning that do not attend to diversity and related issues of power, silences and distortions that flow through to how educators frame their

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<sup>1</sup> See Pacini Ketchabaw et al., 2015 for a detailed account



thinking and practices” (p. 44). As Prochner and Pacini-Ketchabaw (2013) explain, reconceptualist ideas acknowledge the political nature of the field, question binary thinking, recognize the discursive nature of language, challenge the existence of universality or a single truth, and promote a fluid, strengths-based and “intersectional race, class, gender, sexuality, nationalism, and age-situated analysis of the child” (p. 6). A reconceptualist discourse “questions assumptions of universality” and therefore also questions the use of “terms such as ‘best’ and ‘appropriate’ that suggest singularity of response in a diverse and complex world” (Pacini-Ketchabaw & Pence, 2005, p. 5). These theories, along with a social constructionist<sup>2</sup> view of knowledge creation and meaning making, guide and complexify my thinking on the topic of online learning for early childhood educators.

As such, frameworks that inform my research are those that embrace complexity and encourage deep critical reflexivity. As child and youth care scholar Jennifer White (2007) notes, we are in need of “more approaches and conceptual tools that can accommodate the dilemmas, uncertainties, and paradoxes of practice while also supporting the development of reflexive, critically conscious, praxis-oriented practitioners,” (p. 242), offering us a framework of *praxis* as one way forward. This study theorizes both early childhood fieldwork and the teaching of post-secondary early childhood education as praxis. My understanding of praxis is drawn from White (2007) as *ways of knowing, doing, and being (in context)* that contribute to “ethical, self-aware, responsive, and accountable action<sup>3</sup>” (p. 226).

As White (2015) declares, “[i]n a world that is always on the move, we need to constantly re-evaluate our theoretical and practice frameworks to determine if they are useful and relevant for the times in which we are now living” (p. 498). Thinking with other critical scholars in the fields of early childhood education and child and youth care, the current study follows a hybrid framework that “mind[s] the ‘P’s of **purpose, pedagogy and practicalities,**” (Sutherland-Smith & Saltmarsh, 2010, p. 65, emphasis added) in online early childhood educator training as an embodiment of **knowing, doing,**

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<sup>2</sup> See Appendix C for a more detailed exploration of social constructionism

<sup>3</sup> As Curry and Canella (2013) note, reconceptualising early childhood education – conceptually and ideologically – emphasizes more diverse and socially just ways of knowing, doing, and being.



and **being** in context (White, 2007) – particularly the complicated context of early childhood education in BC. Like Sutherland-Smith and Saltmarsh (2010), I believe strongly that

*minding the ‘P’s of online education—purpose, pedagogy and practicalities—can provide a helpful starting point for productive dialogue between teachers, policy-makers and management, and provides the foundation for developing and sustaining quality online learning and teaching environments (p. 75).*

### Online Education Purpose

Following White (2015), I believe it is important to theorize the early childhood field “as a kind of ‘ethos’ – or way of doing things – that is rooted in a strong set of ethical, political, and ontological commitments and entanglements” (p. 502). This is a beginning point, a purpose of ECE. Yet, Urban and Swadener (2016) suggest that these questions are highly contested:

*What is the purpose of early childhood education and care? How do we understand what it means to be a child, and to live and grow up in our societies at this point in time and in the current cultural, economic and political context? How do we understand and shape the relationship between private and the public responsibilities and contributions regarding the upbringing of young children?*

(p. 13)

Thinking with these critical scholars, it is my contention that knowing, doing, and being in the complex and notoriously fragmented context of early childhood education in British Columbia can be extremely challenging (an issue that will be explored more deeply in *Section 7: (Re)Conceptualizing Online Learning in BC*). As such, this report invites and encourages readers to explore questions related to both: the *purpose of early childhood education* as well as the *purpose of online delivery*:

#### **What exactly is it that educators are being prepared for?**

- What is our BC ECE ‘ethos for the times’?
- What is our collective vision for educators, children, families, and communities?
- How are preservice educators assessed to be ‘competent’ for entry to practice?



- **Why are courses or programs being delivered in an online modality?**
  - Recruitment, flexibility/accessibility, and/or cost savings?
  - Is it a choice positioned second to face-to-face delivery?
  - Or, is it an intentional first choice to support innovative 21<sup>st</sup> century knowledges, skills, pedagogies and digital literacies?

### Online Education Pedagogy

Following Sutherland Smith and Saltmarsh (2010), I believe that pedagogy needs to be re-situated in online service delivery discussions as a **starting place**, or an “a priori condition that **drives** [online program design and implementation]” (p. 72, emphasis added), as opposed to something that is considered *after* the course is designed and technological tools are chosen/as an instructors’ personal facilitation strategy. In other words, this report positions pedagogy as the very first service-level practicality in delivering preservice early childhood education online – a concept that is expanded upon in *Section 8: Purpose and Pedagogy*. The goal of the discussion about pedagogy is to take seriously Strommel’s (2014) suggestion:

*What we must do is work to encourage students and ourselves to think critically about new tools (and, more importantly, the tools we already use). And when we’re looking for solutions, **what we most need to change is our thinking and not [necessarily] our tools** (para. 16, emphasis added).*

For example, ECE instructor-researchers Green et al. (2010; 2013) are highlighted in *Section 10.1.2* as an innovative example of how a teaching team took seriously “[t]he act of putting pedagogy ahead of technology” (p. 262). Their in-depth critical reflection process resulted in **a new mindset, versus just a new set of learning materials**. This work, while time-consuming, resulted in much more effective teaching and learning in their online early childhood education courses. Similarly, a summary of Jones and Bennett’s (2017) innovative conceptual *course as ecosystem* framework can be found in *Appendix A: Pedagogy Before Technology: A Conceptual Reimagining of [e]Learning Space*. These scholars conceptualize wholly online and face-to-face students as different species (or communities of practice) inhabiting the same ecosystem that “require different habitats to sustain their learning and engagement in a single course” (p. 200).



They argue that “[t]rying to replicate the multilayered, multi-sensual and spontaneous engagement of face-to-face classes online is potentially futile” and as such, “course designers could look to digital tools, platforms and activities that facilitate engagement for other types of online-only [students]” (p. 206). They correspondingly argue that **delivery modes should always be considered in the context of learning outcomes**, and thus provide instructors/course designers with a “conceptual reimagining of learning space” to “ensure that **technology is adapted to suit the purpose of a course, rather than altering courses to suit technology**” (p. 195, emphasis added) – a concept that will be explored in more depth in *Section 8: Purpose and Pedagogy*.

### Online Education Practicalities

Following Mol (2002), the question of “[h]ow to relate to the literature?” (p. 3) in analysis is one to take seriously. For me, relating the discussion of online learning to literature that contextualizes technological practicalities as inextricably connected to purpose and pedagogy was a way to engage deeply and ethically – allowing me to engage in a process of ‘plugging in’ to potential “out-of-field voices that may both contribute to and complicate” the meanings (Mazzei & Jackson, 2012, p. 748) of the data I collected. Certainly, as the quality assurance body, the focus for MCFD centres on questions and explorations around technologies and strategies that are most effective in delivering ECE curriculum online. However, as can be gleaned from above, practical decisions about technological tools simply cannot (and should not) be made separately, or in advance of, articulating a clear *purpose* and *pedagogy* – two major practicalities in and of themselves.

## 4. Limitations

Despite the extensive review of the literature and comprehensive analysis, limitations to the current study exist. The multiple conceptualizations and definitions across disciplines and jurisdictions for terminology related to both *online learning* and *early childhood education* (see below in *Section 6: Key Terms and Concepts* for a detailed breakdown of terminology) made possible search terms virtually limitless. As such, the chosen conceptualizations of fully online courses and related search terms – while important for



narrowing scope – may exclude potentially valuable information, particularly from related conceptualizations of online learning such as blended or hybrid learning.

Publicly accessible literature as the sole source of data is another limitation of this study for a variety of reasons. With technology rapidly changing, innovative strategies and promising practices are also rapidly changing, yet there is a lag time in publication for studies exploring the newest and cutting edge technologies and approaches. Additionally, potentially innovative programs that could be of inspiration to the province had insufficient descriptions online to be included in this review. Finally, language barriers meant that only literature published in English could be accessed for this review, limiting the discussion of innovative practices in other countries.

## 5. Report Structure

After introducing key terms, the body of this report begins by first situating *knowing, doing, and being* in the specific and multilayered context of early childhood education in the province of BC. Information from the literature review and cross-jurisdictional and cross-disciplinary scan is synthesized and organized into three sections:

- 1) *Purpose and Pedagogy*
- 2) *Practical Challenges and Considerations*
- 3) *Innovations and Lessons Learned*

After a brief discussion of gaps, the report concludes by exploring potential future directions and considerations for MCFD, proposing a reflective framework to be used in the recognition process for institutions offering or considering offering online programs and/or courses.



## 6. Key Terms and Concepts

### Early Childhood Educator/Educator

*Early childhood educator*, or *educator*, is used as a term for early years professionals<sup>4</sup> who have completed the required educational and practical experiences of their respective jurisdictions. In the BC context, this term refers to practitioners who hold certification through the ECE Registry, the provincial body responsible for the certification of those who qualify for an ECE certificate.

### Early Childhood Education (ECE) Student/Preservice Educator

In contrast to educators who have completed both the educational and practical requirements of their respective jurisdictions, a preservice educator or ECE student refers to a student in early childhood education who is in the process of completing the formalized requirements for certification. It is important to note that many ECE students may already be *in-service*, as in working in the field – some for many years – and may not identify with the term preservice.

### Teacher

In this report, *teacher* is used to refer to professionals in the Kindergarten-Grade 12 teaching stream who have completed the required educational and practical experiences of their respective jurisdictions. In the same vein as above, a preservice teacher is a student in the process of completing formalized requirements for licensure.

### Practicum

*Practicum* (also referred to in the literature as *field education*, *field experience*, *practical experience*, *clinical experience* or *service learning*) is defined here as the required practical experience at early childhood sites that is necessary for graduation from ECE programs and subsequent ECE certification. Practicum is hosted and supervised by a mentor educator.

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<sup>4</sup> While this report conceptualizes and refers to educators as professionals, the complexity and professionalism of educators' work is not captured as such in its current federal designation – the *Canadian National Occupation Classification* classifies ECEs and ECE Assistants under major group 42, “*paraprofessional* occupations in legal, social, community and education services” (Human Resources and Skills Development Canada, 2016, p. 47, emphasis added).



### Mentor Educator

This term refers to the host and supervisor of the preservice early childhood educator's practicum placement. In the context of BC ECE, mentor educators are required to hold current ECE certification. Mentor educators play a (varying) role in assessment of the preservice educators' competency, in conjunction with the post-secondary instructor.

### Instructor

The term *instructor* is used in this report to refer to those who facilitate and formally assess post-secondary coursework and practicum experiences at recognized post-secondary institutions offering preservice early childhood education.

### Pedagogy

The Merriam-Webster dictionary (2017) defines pedagogy as “the art, science, or profession of teaching.” While this broad definition is a useful starting place, Green et al. (2010) describe the “multiple layers and complexities involved in enacting an online pedagogy of teacher education” (p. 262). Certainly, the unique intersection of preservice ECE instructors' early childhood pedagogies and higher education pedagogies for teaching “the art and science of caregiving and relational care” (Donohue, 2002, p. 21) complexifies the discussion and definition, particularly in an online modality. Pedagogy can take on different meanings according to different theoretical frameworks/in different disciplines (Heikka & Waniganayake, 2011), and as such, there is a range of meanings attached to the term. These meanings can range from a narrow view of “technicalities of dominant, espoused *procedures* of teaching and learning” to “deeper, more philosophical aspects of education, including policies, beliefs and complexities that shape the experience of *being a teacher*” (UNESCO & ARNEC, 2016, p. 5). This report posits that pedagogy is praxis – a way of knowing, doing, and being in the context of preservice early childhood education. As such, definition of pedagogy used in this report is that

***Pedagogy is not simply the ‘act of teaching’ but it is instead the ‘act of teaching’ as informed by the ideas, values and beliefs which sustain and motivate it. Pedagogy is also praxical – in that it aims to produce skills, knowledge structures or ways of thinking which will enable people to participate in, and transform their current and future lives (UNESCO & ARNEC, 2016, p.6).***



It is important to conceptualize both early years and higher education pedagogy as “situated in place, space and time – geographies, ideologies, value structures and cultural representations will both inform and be informed by pedagogical practices” (UNESCO & ARNEC, 2016, p. 6), and therefore, something that always changing and shifting. Thinking about pedagogy helps educators (and thus, instructors) to “look more carefully at *what* they do each and every day; think about the *why* of their practice; understand more deeply *how* their actions have an impact” (Government of Ontario, 2014, p. 16).

### Critical Reflection/Reflexivity

Critical reflection and/or critical reflexivity is a concept that arises frequently as being a vitally important skill/disposition for all of the above listed contributors –*ECE preservice students, in-service educators/mentor educators, and post-secondary instructors.*

Following other poststructural and feminist thinkers, this report posits that “[w]ithout a **critical** orientation, reflecting on one’s practices may not be productive, and it may not hold the potential for transformation,” and as such, reflection must move away from searching for inner feelings of “*how the day went for me*’ to engage with the broader [historical, social, and political] implications of our practices” (Pacini-Ketchabaw et al., 2015, p. 27, emphases added).

### Recognized Institutions

‘*Recognized [Training] Institutions*’ are public and private post-secondary institutions in BC where ECE curriculum has been reviewed and approved by the Early Childhood Educator Registry<sup>5</sup> (see *Section 7: (Re)Conceptualizing Online Learning in the BC Context* for more details about this recognition process). As such, only graduates from programs offered through recognized institutions in the province may be approved for certification through the ECE Registry. In order to recognize the complexity of what the ECE field – and subsequently what ECE pre-service education – entails, this report intentionally omits the term ‘training’ from the title, hereafter referring to these schools as *Recognized Institutions*.

As Laughran and Hamilton (2016) suggest, “[t]he very language of training tends to trivialize [the complexities and challenges]” (p. 4) inherent in preservice education, as

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<sup>5</sup> See Government of British Columbia, 2016 for a list of all recognized institutions



well as, this report argues, the complexities and challenges of the early childhood [para]profession<sup>6</sup>. Prominent BC educator Enid Elliot (2010) suggests that

*The complexity of [educators' caring/responsive/relational] practice is often obscured by popular-culture images of educators as **technicians, experts, or custodians**. While each of these images can perhaps be meaningful or useful in particular situations, they often oversimplify the work of engaging with children and families, directing attention away from the difficult and often ambiguous aspects of **connecting deeply within relationship** (Elliot, 2010, p. 6, emphasis added)*

In other words, the aforementioned popular culture images “are not inherently ‘bad,’ but...they are limiting perspectives that lead to viewing early childhood practice as simple and straightforward” (Pacini-Ketchabaw et al., 2015, p. 64). These images “give the perception that the work of interacting with young children and their families is simply a matter of mastering a finite set of skills and knowledge that define early childhood” (p. 8), and thus lead to early childhood programs becoming ‘training programs’ for a required set of technical skills. As Moss (2009) notes,

*Technical practice (means, strategies and techniques) is important, [too]; we can and should ask the technical question ‘what works?’ But this practice and this question should follow from and be subordinate to political and ethical practice, as well as to critical questions of a political and ethical nature. What is the purpose of early childhood education and care? What values and principles should it embody and promote? What is its image of the child, the parent, the early childhood worker, the early childhood service? What are the possibilities of ECEC and what are the dangers? What is our vision of the future? (p. 2).*

As is discussed in Section 7: (Re)Conceptualizing Online Learning in the BC Context, these are questions that are currently under intense debate in the province.

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<sup>6</sup> As I have written about elsewhere (see Mirau, 2015), this designation is problematic for discourses of educator professionalism, as a paraprofessional is described to be “a person to whom a particular aspect of a professional task is delegated, but who is not licensed to practise as a fully qualified professional” (Paraprofessional, 2017a); or a “trained aide who assists a professional person” (Paraprofessional, 2017b).



## Online Learning

Conceptualizations and terminology surrounding the multiple modes and methods of online delivery of post-secondary education are varied, and are often used interchangeably to refer to very different models of delivery, thus muddying the dialogue about online learning. In the review of the literature, a variety of terms pertaining to what this report will refer to as **online learning** arose, including *distance learning*, *correspondence learning*, *distributed learning*, *e-learning*, *hybrid learning*, *blended learning*, *technology mediated learning*, *technology-enhanced learning*, *web-based learning*, *virtual learning*, *digital learning*. As Moore, Dickson-Deane, and Galyen (2011) suggest, *online learning* may be the most difficult to define, as there is such great variation in how it is used – some use it to refer simply to the technology medium (which can be utilized in both face-to-face and distance course delivery, as well as in hybrid/blended face-to-face and online delivery), while others use it to refer to wholly online (distance) courses or programs. This report uses online learning as a term to refer to **wholly distance courses that utilize the Internet as the primary means of communication and curriculum delivery**. This conceptualization directly relates to the approach of the six institutions<sup>7</sup> that are currently recognised by MCFD as offering ‘distance education’ programs. It also encompasses other recognized institutions that offer one or more courses from their face-to-face program in a fully online mode.

Moore, Dickson-Deane, and Galyen (2011) note that *distance education* is the most renowned descriptor used to reference the “effort of providing access to learning for those who are geographically distant” (p. 129). As Means, Toyama, Murphy, and Baki (2013) explain, many in the distance education community view online learning as being significantly different from earlier forms of distance learning. This is consistent with Roberts’ (2011) elucidation that many scholars refer to the evolution of distance learning as *generational*, as in “relat[ing] to the technologies and pedagogies prevalent at a particular time” (p. 91). While there is some variation in scholars’ categorization of the generations in relation to distance teaching and learning (Roberts, 2011), there are some patterns that are clear. Black (2013) traces the history of the emergence of online learning

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<sup>7</sup> College of New Caledonia, College of the Rockies, Lethbridge College, Northern Lights College, Northwest Community College, Pacific Rim Early Childhood Institute



and teaching as a research discipline as beginning with *correspondence education* in the 1920s (reliance on print-based media sent to students via mail). Then, a growth of professionalizing courses via correspondence began in the 1960s. Later, radio and television became broadcasting tools, and were then replaced with advances in telecommunication (videoconferencing and audio) and computer-assisted learning (Roberts, 2011). Today in 2017, the current generation of distance learning uses *online learning*, designed to capitalize on features specific to the Internet (Means et al., 2013). Some scholars suggest that Web 2.0 technologies<sup>8</sup> are “already on the stage to become [the next generation] in the distance learning story” (Roberts, 2011, p. 91). This certainly seems to be the case in the review of the literature, in which Learning Management Systems and their capability for dynamic communication and user-generated content consistently arise as an important area of discussion (see *Section 9.3: Decisions around Learning Management Systems* for more details).

## 7. (Re)Conceptualizing Online Learning in the BC Context

This research endeavour is one that is certainly timely – in 2016, the Social Sciences and Humanities Research Council identified the exploration of new ways of teaching and learning as an area essential for addressing complex Canadian challenges, specifically noting how emerging technologies might be leveraged in teaching and learning to meet these challenges (SSHRC, 2016). Further, the province of BC has recognized early childhood educators (and Assistants<sup>9</sup>) as a ‘high-demand occupation’ with an estimated 8,470 early childhood education job openings in the province through to the year 2024 (Government of British Columbia & Work BC, 2014). As Shirley Bond, Minister of Jobs, Tourism and Skills Training and Minister Responsible for Labour states, “it’s critical we have the right mix of education and training programs available to meet these needs [for high-demand occupations]” (Government of British Columbia & Work BC, 2014, p. 2). This is especially important for the field of early childhood education, as recruitment (along with retention) is a well-documented and enduring challenge facing the early childhood field in Canada (see *CCHRSC, 2009b*).

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<sup>8</sup> Change from static webpages to dynamic/user-generated content

<sup>9</sup> An early childhood educator assistant (ECEA) holds at least one course of a basic early childhood education program and has registered with the ECE Registry



An extensive literature review and environmental scan by the Childcare Human Resources Sector Council (CCHRSC, 2007) found that access barriers to obtaining pre-service education posed a major challenge for ECE recruitment in Canada. Along with a shortage of spaces in post-secondary institution programs, reported barriers for prospective students included cost, distance of institution from home and/or work, and scheduling conflicts with family and/or work. CCHRSC (2007) concluded that current and future educators need support in obtaining credentials, and that a key support strategy (along with mentoring/coaching and pedagogical leadership) is e-learning via distance education. Similarly, describing a research project that explored the challenges and strengths of distance education for early childhood educators in Canada, McDonnell (n.d.) highlighted how “distance education was seen as a critical part of the educational system, particularly for students unable to attend institutions because of geographic location or those trying to balance family, educational, and work demands” (p. 9). Indeed, with more and more students opting to complete some or all of their early childhood training online in British Columbia, MCFD is interested in cutting edge research findings into criteria and requirements for effective online education delivery models to best support instructors and students.

### Who is offering what?

The province of British Columbia is one jurisdiction that seems to have embraced online learning for early childhood educators, with six recognized institutions offering fully online ECE programs. BC institutions include: *College of New Caledonia*, *College of the Rockies*, *Northern Lights College*, *Northwest Community College*, and *Pacific Rim Early Childhood Institute*. The sixth recognized institution offering online curriculum approved for BC graduates is *Lethbridge College* (in Alberta). As there are currently no formalized or specialized recognition requirements for already recognized (face-to-face) early childhood programs that choose at the institutional and/or departmental level to offer one or more individual courses online – the approved curriculum remains the same – the actual number of ECE courses being offered online is not currently tracked by the ECE Registry and is therefore unknown. A scan of recognized institutions’ websites was inconclusive due to insufficient detail regarding modes of delivery. However, it is clear that at least a small number of public post-secondary institutions that offer fully face-to-



face programs also provide the option of taking one or more courses online – an option available both for the face-to-face cohort students and/or students not enrolled in the program. It is interesting to note that of the institutions who do advertise offering one or more courses in an online modality, courses in *Child Development* and *Health, Safety, and Nutrition* are offered – each of which are applicable for ECE Assistant certification (Government of British Columbia, n.d.a).

### What else is important to know?

*Providing high quality early learning experiences for young children depends on the ongoing partnerships between different levels of government, between different provincial ministries, and between government and early learning and child care organizations and practitioners. This collective work is vital to maintaining and strengthening the infrastructure that supports high quality early learning and child care experiences in B.C (BC Early Learning Framework: Government of BC, 2008, p. 7).*

It is clear that situating the discussion of online learning in the unique (geographical, legislative, early childhood, higher education, etc.) context of British Columbia is important, as there are numerous considerations that effect multiple levels in online service delivery of preservice early childhood education. As Sheridan and Kelly (2012) explain, the challenges inherent in delivering pre-service early childhood education – whether face-to-face or online – are complex and multifaceted, as instructors and course designers must determine not only how to best meet the educational needs of students, but the needs of children, families, and communities as well, and all within local legislative guidelines. While MCFD is ultimately responsible for the recognition of post-secondary institutions and the certification of program graduates, there are many interwoven partners and stakeholders at every stage of service delivery and quality assurance of online preservice early childhood education. Clearly, knowing, doing, and being in (*this*) context can be complex, and is perhaps best illustrated in the visual below, *Figure 1: Mapping the Complexity*.

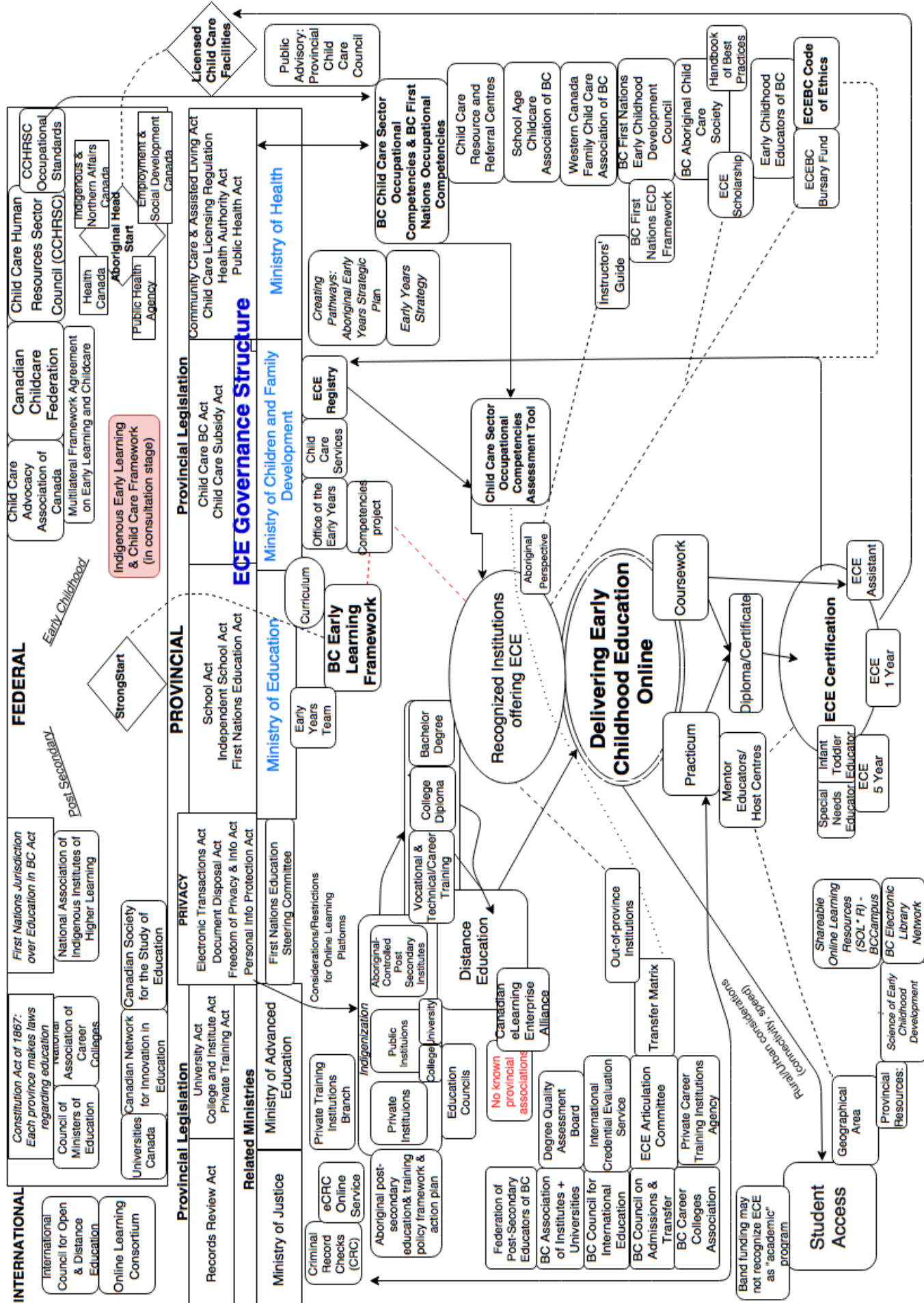


Figure 1: Mapping the Complexity



Unlike other comparable jurisdictions such as Australia and Aotearoa/New Zealand, responsibilities for both post-secondary education and early childhood education in BC are at the provincial level, as opposed to federal<sup>10</sup>. While this provides the province freedom and flexibility to develop policies and procedures unique to British Columbia, it also seems to complexify the legislative landscape. For example, while MCFD is the regulatory body for recognizing institutions and certifying program graduates, the governance of early childhood education in BC falls under the aegis of three provincial ministries: MCFD, Ministry of Education, and Ministry of Health.

It is important to note that the Early Childhood Educators of BC, along with the Coalition of Child Care Advocates of BC (2016) released *a Community Plan for a Public System of Integrated Early Care and Learning*, critical of the false divide between ‘care’ (licensed childcare – MCFD) and ‘learning’ (Strong Start, kindergarten, grade 1 – Ministry of Education). They note that an “ever-expanding body of research clearly demonstrates that ...[q]uality child care *is* early learning” (p. 4). Building on evidence learned elsewhere, along with the lived experience in BC, they recommend BC follow other jurisdictions and provinces in “moving child care into the Ministry of Education, a low cost way to ensure the Plan is implemented without the false divide between ‘early care’ and ‘early learning’” (p. 2) – noting the Education Department of the Stz’uminus First Nation (Nutsuma Lelum Child Day Care) as an example of one department in the province who has already integrated early care and learning.

It is also important to note the current tensions in the field surrounding the conceptualization of what minimum standards of competence, or learning outcomes for early childhood educators/program graduates should be. Currently, the institutional recognition process through the ECE Registry requires institutions to outline how their curriculum/courses links to the *BC Child Care Sector Occupational Competencies*

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<sup>10</sup> At the time of writing this report, the Federal Government of Canada announced engagement in a public consultation process for the development of an Indigenous Early Learning and Child Care Framework. See <https://www.canada.ca/en/employment-social-development/programs/indigenous-early-learning/consultation-indigenous-early-learning/toolkit.html>



(Government of BC, n.d.b.) (which are drawn from the Child Care Human Resources Sector Council's *Occupational Standards for Early Childhood Educators*<sup>11</sup>). This 'linking competencies' curriculum approval process is undertaken via the *Child Care Sector Occupational Competencies Assessment Tool*<sup>12</sup> (Government of BC, Centre for Curriculum, Transfer & Technology, 2004), which the ECE Registry provides to institutions for this purpose. During this process, institutions must outline via the tool how course credit hours (and course titles on student transcripts) meet the minimum required 902 instructional hours for basic certification in various knowledge/ability areas: 90 hours in *child growth and development*, 312 hours in *program development/curriculum and foundations (including child guidance)*, 45 hours in *interpersonal skills/community/family*, 30 hours in *health, safety and nutrition*, and 425 hours for *practicum seminars/observation hours*. Additional hours in these, and slightly modified/specialized areas are required for specialized *Infant and Toddler* and *Special Needs* ECE certification.

In 2013, the BC Government released the *BC Strategy*; wherein one of the identified quality enhancement initiatives included enhanced preservice education for early childhood educators (Government of BC, 2013a). In 2015, collaboration and consultation on this initiative began through the Early Childhood Educator Entry-to-Practice (EtP) project – including multiple third-party experts, post-secondary instructors, government, early childhood educators, and other stakeholders in the field. The intention of this project was to create a BC ECE entry-to-practice competence guide, a provincial program guide, and program recognition standards for recognized post-secondary institutions (BCcampus, 2015). This is certainly fitting with suggestions for deep collaboration and co-creation of competencies the renowned Competence in Early Childhood Education

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<sup>11</sup> see CCHRSC, n.d.

<sup>12</sup> The tool was developed for multiple uses: “evaluation of staff by employers; identification of professional development needs; development of curriculum; evaluation of students, especially in practicum settings; and a checklist for Licensing or accreditation purpose” (Government of BC, Centre for Curriculum, Transfer & Technology, 2004p. 1), and was adapted for the ECE Registry from the Multi-Lateral Task Force on Training, Career Pathing and Labour Mobility Competencies.



and Care (CoRE) study<sup>13</sup> calls for, cautioning, “simply deciding what is good enough for the ‘market’ is unlikely to result in a developing an innovative profession fit for today’s and tomorrow’s children and families” (Urban et al., 2011a, p. 29). CoRE consulted with experts across countries, who seemed to agree that competency profiles for initial practitioner professional preparation<sup>14</sup> should:

- 1) Be framed in general terms (rather than detailed lists or descriptions); and
- 2) Contain knowledge, skills, and reflective competencies (Urban et al., 2011a).

The *BC Child Care Sector Occupational Competencies* on which current curriculum profiles for recognized post-secondary institutions are based (as described above), is a detailed list split into 2 distinct areas: **knowledge** and **abilities** (skills) – with multiple sections and functions within. When considering the CoRe study, what seems to be lacking in the current occupational standards competency profile is reflective competencies (sometimes referred to as dispositions). As *Section 8.2: Intersections Between Higher Education and Early Childhood Purposes* outlines in more detail, a simple knowledge and abilities/skills approach that does not take into account reflective dispositions can be problematic as it can lead to a technical approach to preservice ‘training,’ as opposed to a congruent and holistic education preparing educators for the complexities of working in relationship with children, families, and communities.

The *BC Early Learning Framework* (BC ELF), released in 2008 by the Ministry of Education (in partnership with the Ministry of Health and MCFD), is “intended to guide and support early childhood educators” and “meant to be uniquely British Columbian” (Government of BC, 2008, p. 2). While the BC ELF notes that the learning goals within “are congruent with some of the [Child Care Sector Occupational Competencies] and training curriculum for early childhood educators” (Government of BC, 2008, p. 7), the vision, principles, and learning goals presented in the BC ELF extend beyond the ‘checklist’ of activities and knowledge specifications of the Child Care Sector Occupational Competencies. Notably, the BC ELF incorporates a number of deeply

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<sup>13</sup> See Urban et al., 2011a; 2011b

<sup>14</sup> Note the language of ‘professional preparation’ – deliberate terminology used in the study to resist technical ‘training’ approaches to pre-service education



reflective ‘*Questions to Consider*’ for educators’ contemplation related to each early learning goal, thus strongly supporting reflective competencies for early childhood educators. While utilization of the framework is mandatory at StrongStart BC, – a federally funded initiative – its utilization is not mandatory at provincially licensed child care centres and programs. It is also not a mandatory document used for the curriculum recognition of post-secondary institutions offering early childhood education programs (as outlined above).

Certainly, “early childhood educators...have a vision of the children with whom [they] live and work” and “[t]hat vision influences how [they] enact [their] role with children and at the same time guides [their] thinking and engagement” (Elliot, 2010, p. 10). Yet, the inconsistency of how the BC Early Learning Framework is introduced (or not) in preservice early childhood education programs (as well as in the in-service setting) and how meaning is made around it can be seen as problematic in co-creating a shared vision for the field. It is thus problematic that incorporation of this document in preservice education is not currently taken into account in the institutional recognition process.

The vision put forth in the BC ELF envisions early learning “as a dynamic process, actively supported by families and other adults who care for and teach children in their homes and communities”, and is “based on the image of the child as capable and full of potential” (p. 14). This vision is articulated in three sections:

#### **Vision for children**

*that they will experience physical, emotional, social, intellectual, and spiritual well-being. All children will feel safe, secure, and enjoy a sense of belonging in their homes and communities. They will be able to communicate their own thoughts and feelings, and to listen to, acknowledge, and empathize with the thoughts and feelings of others. Within the context of their individual and cultural identities, children will be thinkers, doers and players who are curious, creative, explorative, and self-confident. Young children will feel pride in their linguistic and cultural heritage, exercise social responsibility, understand their relationship with nature and the earth, and be active participants in their communities (p. 14)*

#### **Vision for families, communities, governments**

*that they will work in partnership to support children in building the foundations for early development and lifelong learning. All adults who care for children in their homes and communities will play an active role in supporting children’s learning and development. Adults will see young children holistically, provide rich learning environments, listen to and value children’s thoughts, feelings, and contributions, nurture their individuality and uniqueness, and promote and practise respect for linguistic and*



*cultural diversity. As part of their efforts to understand, value, and accept responsibility for promoting early learning, all levels of government and communities will work together to nurture and support children and families, and to support parents, grandparents, and other family members in their efforts to promote children's learning and overall wellbeing. Relationships and dialogue among families, early childhood educators, and other early years professionals will contribute to the creation of a common language and understandings about early learning (p. 14)*

### **Vision for children's environments**

*that they will be inclusive, reflective of the cultural and linguistic context of communities, and intellectually and aesthetically stimulating. Children's environments will be designed with the intention of securing their well-being, nurturing positive relationships, and supporting movement, exploration and play. Early learning environments will stimulate all aspects of children's learning, promote respect for diversity, and foster their connection to their communities and to the earth (p. 14)*

While this vision serves as a useful and important starting place for discussion in preservice education, it is important to note, as Elliot (2010) warns,

*Frameworks and curricula cannot mandate attitudes, assumptions, and reflection; unable to engage dialogically they cannot know or respond to individual or local concerns. A framework or curriculum, even a chapter, fails to engage educators in a dialogue where thinking can shift and new ideas can be formulated (p. 5).*

As such, engaging preservice educators in dynamic dialogue (versus 'delivering' as stringently pre-defined curriculum) is vital. Congruent ECE preservice education, with its focus on co-creation of knowledge (*see Section 8.2 for more details*) can be seen as an ideal site for collective visioning and professional identity building<sup>15</sup>.

Lively dialogue of this nature is currently still underway through the BC Entry-to-Practice project – hence the dotted red lines in *Figure 1* representing its current, in flux connection to the legislative landscape. It is within this complex and tension-fraught landscape that the discussion of online delivery of preservice early childhood education in British Columbia sits.

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<sup>15</sup> Taylor (2009) found that building a professional identity was a main transition challenge for online ECE students in Australia



## Literature Review and Cross-Jurisdictional/Disciplinary Scan

As Tony Bates (2008), a leading researcher in online education in Canada, notes, online learning is “perhaps one of the hottest and most controversial developments in post-secondary education,” (p.1) with strong advocates and strong critics. This certainly extends to the early childhood education field where some educators “believe that online education shows promise as an innovative and creative pedagogical method,” while “on the other hand, some educators hold sceptical views, perceiving distance learning as inadequate and inappropriate substitutes for on-campus and face-to-face instruction (Shin & Lee, 2009, p. 32). In a study exploring the perceptions of early childhood instructors in Australia, a country leading in innovations in e-learning, Davis, Lennox, Walker, and Walsh (2007) noted that a large proportion “do not believe that online teaching and learning can ever be a full replacement for effective face- to-face teaching and learning in pre-service teacher education” (p. 8).

There is a plethora of long standing ‘no significant difference’ comparative research in higher education that demonstrates similar outcomes for distance/online and traditional classroom-based learners, (Dell, 2012), and some that see better performance (Weschke, Barclay, & Vandersall, 2011) and sense of community through online delivery. For example, Hamaidi, Kaye, and Cahill (2016) found that instructors “mentioned that they have the opportunity to know their students more [in online courses] than in face-to-face courses” (p. 5), as students seem to be in contact based on their own time and schedule, versus visiting only during office hours. Further, they found that students in rural areas found the online/virtual environment encouraging for speaking up and “express[ing] their thoughts and feelings without any pressure of the physical environment” (p. 5)

However, it is clear that “the field of early childhood education has been cautious and even skeptical about the efficacy of online learning for teacher education” (Fox & Donohue, 2006, p. 31). Conceição (2011) suggests that this scepticism is perhaps unsurprising, “given that that relationships are at the heart of the work with young children, parents, and families” (p. 4). Indeed, Hockridge (2013) argues that challenges for educators using distance and online education are accentuated in programs that prepare students for relational professions, with a large part of the debate surrounding



whether or not genuine community and interaction can take place online. Certainly, in Sutherland-Smith and Saltmarsh's (2010) study, participants who were sceptical about online education did not see the online environment as "conducive to the high levels of student interaction, student-centred learning and authentic task discussion that they considered most important elements of pedagogy" (p. 70). Yet, multiple researchers have noted that with the growing number of institutions moving to fully online ECE pre-service programs, there seems to be shift in the debate – "not *whether* to prepare teachers online, rather *how best* to do this" (Pittaway & Moss, 2014, p. 140). With six established institutions in the province already offering fully online programs, this certainly seems to be the case from the perspective of MCFD. Since there are already many established, measurable, and known benefits of offering early childhood education online – such as convenience, flexibility, adaptability, cost-effectiveness, recruitment, etc. (see Yates, 2011). – MCFD is interested in gaining a picture of some of the practical challenges of online delivery. As such, the current literature review explores the question: *What are the challenges of delivering early childhood education online?* The discussion is split into 3 sections:

- 1) Purpose and Pedagogy
- 2) Challenges and Considerations for Online Delivery of ECE
- 3) Innovations and Lessons Learned Across Jurisdictions

## 8. Part 1: Purpose & Pedagogy

*In early care and education we start all conversations from the perspective of what is best for the child. Improving child outcomes is at the core of all teacher education programs, and for this to become reality effective educational experiences that increase knowledge and improve practice are paramount...[Online] learning standards + Early learning standards = Improved teacher performance leading to improved child outcomes"*

(Fox & Donohue, 2006, p. 31, emphasis added)



Yates (2011) reminds us that “[online] teacher education is not an entity on its own, it is part of teacher education and so must meet the criteria which define effective teacher education” (p. 21) Yet, [d]ebates about how we do teacher education, its quality and consistency, and the calibre and readiness of teaching graduates are issues of international concern” (Green, 2016, p. 44). Certainly, “defining effective teacher education is not easy, because like teaching, teacher education is complex and demanding” (Yates, 2011, p. 21). Darling-Hammond’s oft-cited study of exemplary teacher education programs concluded that central to the success of the programs include:

*coherence, based on a common, clear vision of good teaching grounded in an understanding of learning; a strong core curriculum, taught in the context of practice; extensive, connected clinical experiences that support the ideas and practices presented in coursework; an inquiry approach that connects theory and practice; school-university partnerships that develop common knowledge and shared beliefs among school- and university-based faculty; and assessment based on professional standards that evaluates teaching through demonstrations of critical skills and abilities* (Darling-Hammond, 2006, as cited in Allen, Ambrosetti, & Turner, 2013, p. 109, emphasis added).

Enacting this education in an online context can be even more challenging than in a face-to-face context. One of the major challenges is that it is not just different technological tools that are needed for online delivery, but different pedagogies. Certainly, the literature reviewed to gain a sense of the challenges of online ECE delivery showed a strong consensus that there are distinct pedagogical demands for online settings than when compared with face to face (Gikandi & Morrow; 2016; Green et al., 2013), and how “student dissatisfaction with online learning experiences stems from pedagogical issues rather than logistical concerns” (Heirdsfield et al., 2011, p. 2). In essence, questions around instructor pedagogy can be seen as the first major challenge in the delivery of early childhood curriculum, whether delivered face-to-face or online. It is troubling, then, that there was a scarcity of authors that included any in-depth discussion of how instructors’ personal and/or collective pedagogies drove the online course design and delivery process. In other words, the majority of literature focussed on practical issues



surrounding technology use before (or without) considering how pedagogy might drive technological choices.

Yet, situating pedagogy ahead of other practical decisions about technologies is an approach that is highly congruent with the well-known higher education framework of *Understanding by Design*<sup>16</sup>, more commonly referred to as *Backwards Design* (see McTighe & Wiggins, n.d.). The Backwards Design framework is made up of three stages: *identifying desired results*, *determining assessment evidence*, and *planning learning experiences and instruction*. The significance of this approach is that the planning of instructional experiences is the final step – “[p]lan with the end in mind” (p. 7). The three stages are briefly outlined below, according to McTighe and Wiggins (n.d.):

- 1) **Identifying Desired Results** – *what students should be able to know, understand, and do*. This is the stage in which established content standards/curriculum expectations are reviewed, and choices about learning priorities are made by considering long-term performance goals
- 2) **Determining Assessment Evidence** – *how instructors will evaluate if students have achieved the above goals*. At this stage, different facets of understanding and performance tasks (assignments) are considered with *alignment* – decisions made in step 1 – in mind.
- 3) **Planning Learning Experiences and Instruction** – *how learners will be supported through activities and resources*. In this stage, lessons and learning activities are planned.

In this approach, **intentionality** is key. *The Australian Early Years Learning Framework* explains that ‘[i]ntentional teaching involves educators being deliberate, thoughtful and purposeful in their decisions and action,’ and is the “opposite of teaching by rote or continuing with traditions simply because things have ‘always’ been done that way” (EYLF, DEEWR, 2009, p.15). Indeed, Donohue, Fox, and Torrence (2007) suggest that *Being an intentional eTeacher requires you to be purposeful in your decisions related to technology, methods, activities, interactions, community building, and how you present the content—and to make these choices based on the learning outcomes you have identified* (Donohue, Fox, & Torrence, 2007, p. 36).

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<sup>16</sup> See [http://www.ascd.org/ASCD/pdf/siteASCD/publications/UbD\\_WhitePaper0312.pdf](http://www.ascd.org/ASCD/pdf/siteASCD/publications/UbD_WhitePaper0312.pdf) for an accessible breakdown/teaching resource



### 8.1. Intersections Between Higher Education and Early Childhood Pedagogies

While some higher education instructor-researchers use the term *andragogy* to refer specifically to adult teaching and learning,<sup>17</sup> it was important for this report to theorize pedagogy as praxis<sup>18</sup> – as knowing, doing, and being in the specific context of preservice early childhood education – thus fostering congruence between instructors’ early years and higher education pedagogies. Indeed, Ontario’s professional learning resource *Pedagogy for the Early Years* makes it clear that **the “same approaches that are effective for children are also key elements of learning and engagement for families and those who work with children; what is good pedagogy for children is also good pedagogy for adults”** (Government of Ontario, 2014, p. 16, emphasis added).

*Ontario’s Pedagogy for the Early Years* suggests pedagogical approaches that nurture learning in early childhood include: **establishing positive and responsive relationships; engaging as co-learners; providing inclusive learning environments/experience that encourage exploration, play, and inquiry; planning/creating environments as a ‘third teacher’; value/discuss/make visible learning through pedagogical documentation; participate in collaborative inquiry and ongoing reflective practices** (Government of Ontario, 2014). Surely, “many parallels can be found between the work of early childhood classroom teachers and early childhood teacher educators—teachers of teachers” (Cheruvu, 2014, p. 225). This was certainly the case in the current literature review, in which higher education literature on supportive online pedagogies strongly mirror these early childhood pedagogical approaches suggesting: **establishment of strong/supportive and trusting relationships** (Davis Asporo et al., 2009; Donohue, Fox, & Torrence, 2007); **instructor as co-learner and co-constructor of knowledge** (Heirdsfield et al., 2011); **creative opportunities for inquiry and learning through meaningful play online (via social networking, simulations, virtual worlds/simulations, online games)** (Eng, 2016; Jones & Bennett, 2017); **designing the online learning space as a ‘habitat’ for students to flourish** (Jones & Bennett, 2017); **making instructors’ and students’ learning visible through documenting and**

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<sup>17</sup> See <https://elearningindustry.com/9-tips-apply-adult-learning-theory-to-elearning> for one example of how andragogy and online learning are conceptualized

<sup>18</sup> See *Section 6: Key Terms and Concepts, Pedagogy*



**sharing ongoing self-study and collaborative inquiry processes** (Brown et al., 2015; Green et al., 2010; 2013). A more detailed discussion and summary of congruent approaches can be found attached as *Appendixes B and C*, respectively.

Sutherland-Smith and Saltmarsh (2010) suggest that “beliefs about pedagogy can be a significant means by which teacher educators construct professional and personal identities (p. 70). Undoubtedly, early childhood instructor-researchers in the field note the importance of “walking the talk” (Hogg & Yates, 2013) ‘walk[ing] your talk’ (Berry & Russell, 2013) “practic[ing] what we preach” (Griess & Keat, 2014) and “practicing what we teach” (Cheruvu, 2014) in early childhood education praxis with adult preservice learners. Importantly, the dissonance that instructors may feel when the two do not match can become a barrier for effective course delivery – particularly in an online modality. Instructors moving from traditional to online teaching often “face constant challenges of finding their teacher-self” (Baran, Correia, & Thompson, 2011, p. 435) This can be seen as a major challenge when considering Sutherland-Smith and Saltmarsh’s (2010) argument that instructors’ professional values and teaching identities might “act as barriers to, or facilitators of, innovative and professionally relevant online programs” (p. 74). What is clear is that opportunities for instructors to deeply and meaningfully critically reflect on how they work towards pedagogical congruency is vital professional development and educational research that benefits both instructor and students. Certainly, there are a “range of ways in which [early childhood instructors] grapple with and learn to manage congruence in their work” (Berry & Russell, 2013, p. 201). It is clear that:

*The task is not to develop all staff to be equal in how they teach online; rather it is to facilitate [the instructors’] engagement in how they can teach in a way that feels authentic to their values and beliefs about pre-service teacher development”*  
(Downing, Dymont, & Budd, 2013, p. 141)

For this reason, instructor self-study and collaborative-study with colleagues was identified in the literature as a priority for the preservice early childhood sector (Berry & Russell, 2013; Green et al., 2013). This approach to higher education inquiry is also



highly congruent with the early years *educator-as-researcher* approach described in more detail below in *Section 8.1.1*.

### 8.1.1 Educator-as-Researcher: Engaging Instructors as Action Researchers

Inspired and informed by the work of educators in Reggio Emilia, Italy, the conceptualization of ‘the educator as researcher’ is an emerging image of the early childhood educator in BC (Pacini-Ketchabaw et al., 2015). This image positions educators as “co-constructors of knowledge” who “partner with the children, families, and their colleagues to collaboratively research, document, critically reflect on, deepen, and share their contextualized understandings” (Pacini-Ketchabaw et al., 2015, p. 66). Pedagogical documentation – or narration, as the process of making visible the learning of children and educators is conceptualized and referred to in BC –is important for “extend[ing] possibilities for educators to see themselves beyond those who apply theories and policies developed somewhere else” (Berger, 2015, p. 134), and instead as *co-creators* of knowledge. This inquiry orientation to early childhood praxis is highly congruent with the distinctive higher education research and publication framework of the Scholarship of Teaching and Learning (SoTL) –an approach from which much of the literature discussed in this project emerged from.

In SoTL action research, post-secondary instructors become researchers through a “systematic and cyclical process of inquiry that involves hypothesis testing, planning, observing, analysis, and action” (Hubball & Clarke, 2010, p. 6) Felten (2013) suggests that five principles of good practice in SoTL research include:

- 1) **Inquiry that is focused on students’ learning** – quality inquiry must have clear goals and be critically reflective
- 2) **Being grounded in context** – scholarly context to use relevant theories and build off what is currently known, local context to consider disciplinary, institutional, classroom, and cultural considerations



- 3) **Methodologically sound research methods**<sup>19</sup> – connecting the inquiry to a research question, intentionally and rigorously applying relevant research tools
- 4) **Partnership with students** – at minimum following basic human research ethics, most preferably engaging in co-inquiry
- 5) **Making results appropriately public** – make the process and product available so colleagues can learn from it

Along with the other strong parallels to the *educator as researcher*, a notable step in the SoTL inquiry process is to share the findings – much like with pedagogical narrations. This inquiry may take the form of self-study, a process briefly described above in *Section 8.1* as being one way for instructors to explore pedagogical congruency. For example, as Souto-Manning (2012) describes:

*it was only natural to me that as a teacher educator, I would engage in systematically researching my own practice in order to improve it—focusing on and living the process as part of my pedagogy. After all, I felt that I could not ask preservice and inservice teachers to engage in teacher research in their own settings if I was not engaging in teacher research as I taught and learned with them (p. 54).*

SoTL research may also take the form of professional collaboration among post-secondary instructors (Brown et al., 2015). In any case, what is clear is that

*[early childhood instructors] need to engage in action research that seeks to actively transform the self, curriculum, and teaching—and, ultimately, society. In doing so, teacher educators can focus on pedagogy and seek to enhance their students' learning. While reflecting on and examining one's own assumptions are important exercises for engaging in equitable education, I propose that transforming learning in [preservice early childhood] classrooms requires us to*

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<sup>19</sup>It is important to note that despite the use of methodologically sound research methods congruent with image and process of *the educator as researcher*, many instructor researchers have found, as Souto-Manning (2012) suggests, “that teacher education research is often an invisible practice and often not conceptualized as ‘real’ research” as a “significant stigma remains attached to what some refer to as “little r” research, in contrast to the “big R” research” (p. 54).



*embrace teacher action research, problematizing and transforming our own pedagogies”* (Souto-Manning, 2012, p. 55).

Certainly, as Brown et al. (2015) suggest, “**leaders can support intentional collaborative opportunities for instructors and make provisions for sharing practice and making learning visible**” (p. 75, emphasis added). As the quality assurance body, MCFD is well positioned to do so for the field of early childhood education in BC.

## 8.2. Intersections Between Higher Education and Early Childhood Purposes

Finding pedagogical congruence (as described above in *Section 8.1*) can be even more challenging when considering instructors’ and other stakeholders beliefs about the purpose of both the delivery method (online teaching and learning) and the field of ECE itself (curriculum/content and ultimate learning outcomes).

For example, Smith, Dymont, Hill, and Downing (2014) describe how senior management at one institution mandated that the education program offer four of their foundational outdoor education units online, with the goals of increasing enrollment and lowering cost. It is clear that “the move to online delivery was not a choice, but rather was a decision that was made for [them]” (p. 307). Indeed, the title of the article, “*You want us to teach outdoor education **where?***” expresses the incredulity of the instructors. Further highlighting the frictions arising from between institutional management versus instructors’ understandings about the purposes of online delivery, Sutherland-Smith and Saltmarsh (2010) suggest that managerial concepts of online education often look like a pre-packaged course product that can thus be delivered – bearing little resemblance to the emphasis ECE instructors put on “collaborative pedagogical practices; learner experimentation and co-production of knowledge” (p. 71). Indeed, Strommel (2014) notes the deep scepticism that might be felt upon “hear[ing] the word ‘content’ in a discussion about education, particularly when it is accompanied by the word ‘packaged,’ **not** because “education is without content altogether, but that its content is co-constructed *as part of* and *not in advance* of the learning” (para. 7). Education as an ongoing, co-constructed process between instructors and students is fundamentally different than a technical view of ‘**training,**’ in which curriculum can be pre-packaged, and ‘delivered’ to students, who are viewed as an ‘empty vessel’ to be filled with



knowledge. This emergent and co-constructed approach is highly significant for the field of preservice early childhood education, where

*Vocationally-orientated qualifications, low status, female domination, and poor remuneration and working conditions... have meant that historically, particular forms of knowledge have been privileged [in preservice education]; specifically, vocational pedagogy, which is usually job specific and frequently provides little experience with abstract or theoretical knowledge (Grieshaber & Graham, 2017, p. 93).*

### 8.2.1 Digital Literacies

Further thinking with the idea of the *purpose* of offering preservice early childhood education online, the concept of digital literacies is one that warrants further discussion – both for educators, and for the young children they will work with.

The BC Early Learning Framework’s early learning area *Languages and Literacies* seems to respond to “the need to incorporate a broader definition of literacy or ‘literacies’ that examines the complex ways in which children make meaning using multiple modalities in various contexts” (Razfar & Gutiérrez, 2013, as cited in Donohue & Schoburg, 2016, p. 35). The BC ELF offers reflective questions to educators about the kinds of opportunities children have to explore their thoughts and ideas through technologies such as cameras, websites, and computer software as a form of creative expression (*see Government of BC, 2008, p. 30*). The *BC First Nations Early Childhood Development Framework* identifies provincial organizations as being responsible for coordinating opportunities for ECE students, in-service educators, and children to have training in technology (First Nations Early Childhood Development Council, 2011). Further, a recent Early Childhood Educators of BC publication explores tips for how educators might use social media to connect with children’s families.<sup>20</sup> These existences seem to fit with many instructor-researchers’ positions that early childhood educators in the digital age must be prepared for 21<sup>st</sup> century practice by becoming competent themselves in technology skills/knowledge and in digital literacy (Donohue & Schomburg, 2015).

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<sup>20</sup> See [http://www.ecebc.ca/resources/journal/2017\\_Spring/Social%20Media.pdf](http://www.ecebc.ca/resources/journal/2017_Spring/Social%20Media.pdf)



Yet, Donohue, Fox, and Torrence (2007) describe how upon enrolling in online programs, ECE students often express their fears and worries about their lack of technology skills and experience. But with support from instructors<sup>21</sup>, “**along the way they learn to survive and thrive in this new learning environment, and they become engaged and empowered eLearners** (Donohue, Fox, & Torrence, 2007, p. 35, emphasis added). This important finding seems to beg the question – should increased digital literacy be a specified goal or learning outcome of online preservice early childhood programs (thus, part of the curriculum)? Certainly, utilizing online delivery to foster 21<sup>st</sup> century pedagogies and learning environments presents a markedly different purpose than using it solely for students’ convenience, flexibility, or institutional cost-saving measures.

## 9. Part 2: Challenges and Considerations for Online Delivery of ECE

In addition to (and seemingly regardless of) pedagogical approach, major themes that arose in the review of international literature on challenges of online delivery of early childhood education include: *instructor skill level, roles, and time demands; security; decisions around learning management systems; decisions around synchronous and asynchronous technology and delivery; institutional responsibilities; barriers to student learning, barriers specific to Indigenous student learning; and practicum*. These themes are explored in greater depth below, each directly followed by respective considerations.

### 9.1 Challenge: Instructor Skill Level, Roles, and Time Demands

Online instructors’ preparedness to teach online is of vital importance for student learning; yet is a major challenge that came up time and time again in the literature. As described above in *Section 8*, a key factor in higher education, whether delivered online or face-to-face, is how content and instructional design intersect to “create a learning environment which appropriately conveys the course intent and meets course outcomes” (du Plessis & Naughton, 2013, p. 3). This means that instructors must design

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<sup>21</sup> Donohue and Schomburg (2015) argue that early childhood *instructors* must also be digitally literate, and provide preservice students with “hands-on opportunities to play with technology,” and “tools and methods for teaching with and about technology [for use with young children]” (p. 38). However, as outlined in *Section 9: Practical Challenges and Considerations [for Online Delivery]*, the literature review revealed that both online early childhood instructors’ and students’ skills and confidence with technology is a major challenge in the field.



and “carefully match the instructional activities to each objective” to support the achievement of each (Knapczyk & Hew, 2007, p. 179). Doing so in an online context can be challenging as it requires a great deal of pedagogical knowledge that may differ greatly from instructional activities appropriate for a face-to-face – an inherently synchronous – instructional context. Yet, critical scholars in early childhood education have highlighted how online learning in higher education has most often replicated traditional print-based and/or face to face approaches to learning, as opposed to practices of knowledge creation (see Green et al., 2013).

What is clear is that there is a high demand for time and expertise to plan online learning environments (Alvarez et al., 2009; Davis et al., 2007; Chaisson et al., 2015). Sutherland-Smith and Saltmarsh (2010) note that “[o]verwhelmingly the [instructors they] interviewed considered teaching online to be more demanding than in face-to-face classrooms” (p. 70). du Plessis and Naughton (2008) noted unrealistic student expectations about the availability of the instructor, reflecting on their experience that “students seemed to develop an expectation that if they could access web-enhanced learning 24 hours a day, 7 days a week, that a lecturer would also be available for them during these times” (p. 6)

Literature revealed that in contrast to face-to-face instructors, online early childhood instructors were required to take on a plethora of roles *beyond* the traditional teaching role, particularly in course development, delivery, and administration (see Alvarez, Guasch, Espasa, 2009; Baran, Correia, & Thompson, 2011; Chang, 2007), and that many instructors are grappling with the challenges in relation to this multiple role expectation (Davis Aspro, Lennox, Walker, & Walsh, 2007). It is not surprising, then, that while many online instructors are excited about the possibilities, many are also “hesitant about the impact online teaching will have on their current roles and workloads, as well as whether they possess the necessary skills (technical and pedagogical) to teach in an online environment” (du Plessis & Naughton, 2013, p. 2). Bates (2008) notes that oftentimes, “‘traditional’ instructors experimenting with online learning drift into distance education without understanding or being aware of the specific requirements of



distance learners” (p. 6). Currently, there is “only a modest body of research reporting on [early childhood instructors’] perceptions on their own preparedness to teach online and their beliefs in the effectiveness of the online learning environment” (Downing & Dymont, 2013, p. 97). However, what seems to be clear in the literature is that many instructors face a challenging shift when moving from teaching face-to-face to online (Baran, Correia, & Thompson, 2011). Yet as Chang (2007) notes, what seems to be “absent from the body of relevant literature regarding the roles of an online instructor in teaching and learning” (p. 319) is that online instruction differs from face-to-face classroom instruction. Indeed, as du Plessis and Naughton (2013) suggest, even before adding subject matter to the mix, the challenges associated with mastering technicalities of online teaching are significant, as it requires strong computer and technical skills along with content mastery. Chang (2007) highlights this multiplicity, suggesting that online teaching requires understanding in three distinct areas:

- 1) Content knowledge
- 2) Pedagogical strategies
- 3) Technology skills

It was apparent in the international literature that generally, there is a lack of technological expertise among early childhood instructors (Davis Aspro, Lennox, Walker, & Walsh, 2007), which can certainly prevent the usage of innovative online pedagogical strategies. Indeed, even though instructional design is key for online delivery, early childhood instructors are usually not trained in this area (Donohue, Fox, & Torrence, 2007). Chaisson et al. (2015) surveyed 10 instructors developing an online version of a course they taught face-to-face, and found that all 10 used an instructional designer on at least one occasion over the term; with many accessing the instructional designer multiple times.

### 9.1.Considerations: Instructor Skill Level, Roles, and Time Demands

There is a clear need for dedicated professional learning opportunities for online instructors (Pelliccione & Broadley, 2010), not only in relation to familiarity with technologies and their capabilities, but with through critical reflection about their own beliefs, philosophies and practices regarding teaching in an online medium. (Davis Aspro et al., 2007; du Plessis & Naughton, 2013). Downing, Dymont, and Budd (2013) suggest that “[i]deally, such professional development should encompass the use of the



technology itself, such as participation in web-conferences, online forums and groups, and other synchronous and asynchronous methods of professional dialogue” (p. 142). They also suggest that critically, “the provision of individual ‘at-elbow support will help [instructors] to feel that they can retain and communicate their own teaching identity in an online teaching space” (p. 141). Further, many researchers call for more collaborative professional learning opportunities with instructional teams – as Brown et al. (2015) suggest, while it takes a great deal of time, “professional engagement and learning in instructional teams models the collaboration we expect of students in courses and pays off in terms of collaborative learning about how to manage common challenges” (p. 74).

ECE Articulation<sup>22</sup> meeting minutes<sup>23</sup> show that the idea of an early childhood instructors’ network has long been proposed, and that idea of an instructors’ stream at the Early Childhood Educators of BC (ECEBC) Conference has strong support from stakeholders. This instructors’ stream came to fruition during the 2017 ECEBC Conference through a facilitated networking and sharing session that allowed instructors to “bring their successes, challenges, and innovative practices to the table” (ECEBC, 2017 p. 16). It seems to follow that a distance/online instructor network (perhaps facilitated via distance) may also be of interest and use in supporting the professional learning of early childhood online instructors. Further, there are a number of formal credentialing possibilities for online instructors at Canadian institutions that may be useful for institutions to encourage as preferred qualifications or professional development opportunities for instructors (*see Appendix D for a list of relevant certificate, diploma, Master’s and Doctoral programs*).

## 9.2 Challenge: Security

Security is an important topic when considering information shared and accessed via the Internet, and arguably more so in a relational field where information about children, families, and communities may be shared as a part of the learning process. Indeed, as Prentzas and Theodosiou (2013) warn, when “a Web-based [learning management

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<sup>22</sup> Articulation committees are an important part of facilitating student mobility between institutions in the BC transfer system. See <http://www.bccat.ca/articulation/committees>

<sup>23</sup> Retrieval from <http://www.bccat.ca/articulation/health/ece>



system] is used in the context of early childhood education or in any other context, security issues need to be considered” (p. 353). One major aspect of security is privacy. However, differing ideas about privacy can make things challenging – a recent guide to privacy legislation for post-secondary instructors in BC notes that “[p]rivacy is an elusive concept to many people. What one person considers private information, another may willingly share with a large circle of friends and even strangers” (Portal, 2011, p. 2).

### Considerations: Security

When considering what kind of information collection and disposal of information and records is appropriate, it is important to look to provincial legislation. In BC, there are two main information privacy laws that set the minimum standard that service providers, employers, and employees “must follow must follow to prevent unreasonable, unnecessary or unsafe sharing of personal information belonging to staff, clients, customers and the general public” (Portal, 2011, p. 2) – the *Freedom of Information and Protection of Privacy Act* (FOIPPA) and the *Personal Information Protection Act* (PIPA). FOIPPA applies to public post-secondary institutions, while PIPA applies to private institutions. One notable restriction for how information may be collected, used, and stored under FOIPPA is that, unless an individual has consented otherwise, the storage of and access to personal information must be in Canada (Portal, 2011), thus potentially limiting or discouraging the use of innovative 3<sup>rd</sup> party platforms hosted outside of the country.

Vancouver Island University, with the support of BCCampus, released a privacy guide (see Portal, 2011) specifically for use by faculty members at post-secondary institutions in BC who are considering using social media (3<sup>rd</sup> party web technology) for instructional purposes. The guide covers: principles and requirements of FOIPPA and PIPA, risks to privacy of using 3<sup>rd</sup> party web technology, practical guidance for mitigating privacy risks, and sample privacy tools. One concrete suggestion arising from this guide that may be of interest to MCFD is the strong recommendation that institutions and/or individual instructors have written policies or privacy protocols in place that provide ample notice of the technology being used. Portal (2011) suggests focusing policy attention on three main privacy principles:

- 1) Notice



- 2) Knowledge
- 3) Informed consent

These principles are of particular importance when considering how practicum is assessed. As outlined below in *Section 9.9: Practicum*, early childhood students may be required to upload videos or other multimedia files involving interactions with children at their practicum site. This makes protection from unregistered users all the more important, and precautions must be taken to avoid any uploads with sensitive or identifying information (Prentzas & Theodosiou, 2013). Klassen (2013) notes the importance of keeping the important conversation of privacy legislation at post-secondary institutions ‘alive and pragmatic’ (p. 17). Though the institutions themselves have the ultimate responsibility to create policies and procedures responsive of this legislation, the background paper *Privacy and Cloud-based Educational Technology in British Columbia* (Klassen, 2013) may be of interest to MCFD, in how it concisely shares questions, recommendations, and examples regarding the implementation of cloud-based technology at public post-secondary institutions across the province.

### 9.3 Challenge: Decisions around Learning Management Systems

As noted in *Section 6: Key Terms and Concepts*, Web 2.0 technologies mark a shift from static webpages to platforms with user-generated content. Learning Management Systems (LMS) – specific Web 2.0 educational technologies – are so much so “at the forefront of recent technological advances in Higher Education” (Heirdsfield et al., 2011, p. 1) that they are becoming synonymous with online learning. However, as Yates, Brindley-Richards, and Thistoll (2014) caution, “merely adding an online platform is not a solution [to challenges of online delivery]” (p. 39), as there are multiple considerations and practical issues inherent to their use. It is important for instructors and course designers to view LMS as “more than simply a repository of learning resources” and move towards more innovative interactive pedagogies (Heirdsfield et al., 2011, p. 10). However many researchers believe that Learning Management Systems are not realizing their full potential, in large part because many instructors “do not have the motivation or time to become expert users of online systems thus limiting their use of innovative pedagogies” (Heirdsfield et al., 2011, p. 2). This may be further exacerbated because decisions about supported Learning Management Systems are generally made at the institutional level (as



opposed to the particular departmental level). While this institutional decision-making is inherent for practical reasons pertaining to fit for general student body, maintenance, and technical support (Prentzas & Theodosiou, 2013), notable early childhood online researchers Donohue, Fox, and Torrence (2007) suggest that this reality can be a challenge for instructors who are then “left to make the best of predetermined instructional, visual, and structural elements for content presentation and activities” (p. 38), as opposed to choosing a system that may be more closely suited to their curriculum and approach, and one fitting for the particular student population. Some instructor/researchers in the field lament how

*“lumbering (expensive) systems within universities are finding it difficult to keep pace with the rate of change and variety of options that [our] student clients are becoming used to (for example, using entertainment technologies). We cannot adapt with the same speed and responsiveness”* (Davis Aspro et al., 2009, p. 9)

Another key limitation of Learning Management Systems is the difficulty associated with instructors and students learning how to use them (Heirdsfield et al., 2011). Certainly, LMS can be complex, with four types of interactivity that are evident (Ellis, Ginns, & Pigott, 2009, as cited in Heirdsfield et al., 2011):

- 1) Learner-content
- 2) Learner-instructor
- 3) Learner-learner
- 4) Learner-interface

Prominent researchers in the area of online preservice early childhood education Donohue, Fox, and Torrence (2007) note that various online course content management systems were designed with traditional college students in mind, as opposed to the non-traditional adult learners that often make up early childhood education classes. They note that “[c]onsequently, some systems may not be as user friendly for early childhood educators nor the content as easy to navigate as we would like (p. 38). Demands of using LMS for asynchronous and synchronous activities further layers the difficulties for students, and choices for intuitions, and will be discussed below in *Section 9.4: Decisions Around Synchronous and Asynchronous Delivery*.



### Considerations: Decisions around Learning Management Systems

Learning Management Systems (such as Desire2Learn, Moodle, Blackboard, CourseSpaces) are recommended for moving what was previously paper-based distance education to online environments (see Yates, Brindley-Richards, & Thistoll, 2014). LMSs are practical in that they are a hub for downloading and uploading course content, resources, and assignments (Heirdsfield et al., 2011), while simultaneously providing a space for multiple forms student-student and student-instructor interaction. Many researchers have suggested that if learning management systems are to realize their potential, instructors need to be convinced of their value (see Heirdsfield et al., 2011), further highlighting the need for ongoing professional learning opportunities for instructors. The Learning Management Systems that came up most often in the Canadian literature were *Blackboard* and *Desire2Learn*, respectively. These LMSs have information housed in Canada and relatively simple to navigate and tend to require little troubleshooting on the part of students and instructors. It is important that whatever system is chosen is highly reliable, so that the technology does not become a burden as opposed to an asset (Eaton et al., 2015).

### 9.4 Challenge: Decisions around synchronous and asynchronous delivery

One of the main debates that arises across disciplines and jurisdictions is around the question of synchronous and asynchronous technologies and modes of delivery. Online delivery, like other forms of distance education, is often fully or predominately asynchronous – as in ‘anytime, anywhere’ access to and engagement with curriculum and interactions with instructors and peers. Asynchronous activities include: email, discussion forums, downloading content files such as videos/PDFs/slides, contributing to wikis or blogs, etc. At other times, online delivery may involve synchronous interactions, where students and instructor come together in real-time. Activities might include video/audio conferencing, livestreaming video, instant messaging. Synchronous and asynchronous delivery each affords their own benefits, and comes with their own set of challenges – both technical and pedagogical.

The main advantage of asynchronous delivery is its flexibility, convenience, and time effectiveness, (Heirdsfield et al., 2007; du Plessis, Walker & Naughton, 2008; Woodcock, Sisco, & Eady, 2015). As many researchers have noticed, this benefits



students in the early childhood field in particular, since the flexibility and convenience of not being required to be present or connected at the same time means that they are available to work in the field, “gaining valuable experience, while studying” (du Plessis, Walker, & Naughton, 2008, p. 3). Other advantages of asynchronous delivery include: allowing students to take time to thoughtfully compose responses before posting in course discussion boards (Heirdsfield et al., 2011); supporting shyer personality types to contribute more than they would face-to-face or synchronously (Shin & Lee, 2009); and allowing for frequent interaction with peers and instructor (Heirdsfield et al., 2011).

Challenges of asynchronous discussion include: time lag between messages; loss of conversational practices like turn taking, maintaining continuity; following the ‘thread’ among many people over time (An, Shin, & Lim, 2009); lack of immediacy when students need instantaneous help (Heirdsfield et al., 2011); and reduced sense of social presence when compared to synchronous discussion (Heirdsfield et al., 2011). Further, though a number of studies on student perceptions suggest that many students say they prefer asynchronous online discussion with peers (An, Shin, & Lim, 2009), an extensive literature review on the topic of asynchronous computer mediated communication noted that preservice educators “tend to post only the minimum number of messages required, particularly if participation is voluntary,” and often did “not actively participate and interact with others in online discussions” (An, Shin, & Lim, 2009, p. 749). This is troubling, as some findings indicate poor learning outcomes when students passively learn or ‘lurk’ in asynchronous discussion forums without active participation. (see Heirdsfield et al, 2011).

In contrast, many studies suggest that synchronous learners “tend to enjoy more consistent communication, greater focus on tasks, increased participation, and more frequent completion of their work and courses than their asynchronous counterparts” (Woodcock, Sisco, & Eady, 2015, p. 22). Gronn et. al (2013) suggest that the theory of media naturalness (that more cognitive effort is required to engage in modes of communication different from face-to-face) supports synchronous webcasting in that webcasting is seen to be high in media naturalness (i.e. most similar to face-to face), thus reducing time and cognitive load demands for completing tasks. Further, Downing,



Dyment, and Budd (2013) note that it is important to recognize the potential of synchronous communication tools for creating community and building social capital.

Of course, what is seen as a major drawback to requiring any amount of required synchronous interaction is the loss of flexibility and convenience that asynchrony offers. While there are many student stories that highlight how synchronous interactions can still be flexible and convenient (for example, with students attending sessions from campus, friends' homes, via iPhone while at children's sports games, etc. - see Woodcock, Sisco, & Eady, 2015 for more details), it is certainly challenging for students to find time and access technology for synchronous interactions. Further, synchronous learning is often seen as more intimidating – both because of technology and loss of a sense of anonymity, (Woodcock, Sisco, and Eady, 2015), the lack of reflection time prior to contributing comments, and higher likelihood of being technically unreliable (Borup, West, & Graham, 2012); particularly when considering barriers to access to broadband Internet (*see below in sections 9.6 and 9.7: Barriers to Student Learning*).

### Considerations: Decisions around synchronous & asynchronous delivery and technologies

Clearly, there are a number of advantages and disadvantages to both synchronous asynchronous delivery and technologies. It is most certainly “a formidable task to elicit participants' sense of social presence in a learning community with only text based asynchronous discussion board communication tools” (An, Shin, & Lim, 2009, p. 751), which is why the literature seems to point towards exploring a combination/balance between the two that meets both student needs for convenience and flexibility and instructor needs for evidence-based pedagogical methods for supporting student learning outcomes. In other words the question is not whether delivery should be asynchronous *versus* synchronous, but rather **how much** delivery should be synchronous, and how much should be asynchronous. While there are no easy answers, one thing that is clear is that students should be made aware of any synchronous requirements from the outset – if the program is advertised as ‘anytime anywhere,’ it may be disillusioning to find that there are in fact ‘certain times, certain places’ they are expected to be.



Practical suggestions that arose in the literature for online instructors to consider when facilitating asynchronous learning activities include:

- **Sharing high fidelity asynchronous video that “combin[es] the *human touch* aspects of face-to-face communication with the flexibility of online environments”** (Borup, West, & Graham, 2012, p. 4)
- **Actively moderating asynchronous discussion boards to encourage supportive student interactions and create a shared construction of knowledge** (Shi, et al., 2008; Shin & Lee, 2009) **with clear policies/rules for discussion** (An, Shin, & Lim, 2009), **for example: Making asynchronous discussion posts mandatory, with criteria for levels of engagement** (Shin & Lee, 2009)

Tips for synchronous facilitation include:

- **Hosting any synchronous sessions when most students are available – in early childhood education, this tends to be in the evenings after work** (Yates et al., 2014)
- **Choosing a Learning Management system that supports multiple synchronous functions, such as chatrooms and ‘breakout rooms’ for small group discussions, that can be password-protected, monitored, and archived** (Shi, et al., 2008) – this also means students have one less platform to learn
- **Choosing synchronous videoing technology that allows for recording so it can be used later (asynchronously) for reflection, analysis, discussion** (Gronn et al. 2013)
- **Moderating synchronous conversations using ‘good moderating practices’ of *providing hooks with both ends, modeling and mentoring, confronting and conflicting, setting up norms, social-emotional elements, motivation*** (Shi et al., 2008)

For both modalities of learning activities, it is important to **provide clear expectations, and model ‘netiquette’** (Dolan et al., 2009; Donohue, Fox, & Torrence, 2009).



### 9.5 Challenge: Institutional responsibilities

In addition to responsibilities for decision-making around Learning Management Systems and security policies as described above, there are some additional considerations that post-secondary institutions must grapple with when individual departments offer one or more courses online. Cost of delivery is an important consideration (Newton, 2007), particularly when considering the additional time and role demands for online instructors as highlighted above. Instructors in Chaisson et al.'s (2015) study believed that additional compensation should be received, due to these additional time and role demands. Indeed, the research concluded with the suggestion that institutions “establish an equitable workload compensation policy that addresses the additional work required of [online teaching] faculty” (p. 238). This also relates with findings from Sutherland-Smith and Saltmarsh's (2010) study, in which unresolved workload issues were seen as problematic for sustainability, with participants observing that a lack of succession planning meant that “when individual teachers who commit substantially more hours than is reflected in their workload to making online courses succeed, quit the faculty or university, there is often no one able or willing to continue online course development under similar conditions” (p. 73).

Further, participants in Sutherland Smith and Saltmarsh's (2010) study “felt that the faculty wide decision to wholly embrace online learning had neither been supported logistically, or adequately resourced” and thus felt “a lack of appreciation on the part of management of the time constraints and personal pressure associated with a large volume of email traffic” (p. 73). It seems that at many institutions, the expectation is that instructors “would have to find ways to alter their practices in order to adjust to the increased volume of student queries, yet without any formal process of review for considering the implications” (Sutherland-Smith & Saltmarsh, 2010, p. 73).

Bates (2008) suggests that “some university administrators...are thinking that distance education is just an extension of classroom teaching, rather than a specialist area of expertise, and can therefore be ‘decentralized’, i.e. given to the regular academic departments to deliver, if they choose” (p. 6). This certainly seems to be the case in BC. While this is not inherently negative, and departmental autonomy is important,



particularly in the field of ECE where learners are a different demographic with different needs, it does beg the question of how much should come from the (ECE) department, and how much should come from the institution itself. Davis Aspro et al. (2009) grapple with this tension, reflecting that:

*“[i]nnovation in each individual unit makes that unit distinctive. If all units did the same thing, then that would become de rigueur (standard and accepted). The special features of a unit help to facilitate students’ engagement with that unit. Yet, web governance and human and financial resourcing issues place restrictions on what staff can do – the idea of a ‘lone wolf’ developing unique, experimental work is not really encouraged by the system which tends to favour technological efforts that are transferable for use by many” (p. 9)*

It should not be surprising, then, that lack of support from institutional administration was identified as a “significant barrier to developing or investing in resources or programs requiring technology” (Eaton et al., 2015, p. 8). Some researchers theorize that this may be the case is because decisions at the institutional level may be based not on evidence-based measures of how student learning outcomes may be supported by online delivery, but rather made “according to the beliefs of those who support technology” (Eaton, et al., 2015, p. 8).

#### Considerations: Institutional responsibilities

The following section, *Barriers to Student Learning*, notes an abundance of technological challenges students may run into. If early childhood instructors are not highly skilled in technology (and this begs the question – should we expect them to be?), what is the role of IT departments and having strong relationships and requirements around this? Jones (2015) is clear that “university infrastructure available to support online coursework is foundational to ensure quality,” and that in addition to “an effective, reliable, learning management system, webcams, and software tools,” there also needs to be “qualified personnel for infrastructure maintenance, educator training, and around-the-clock technology support” (p. 227). Prentzas and Theodosiou (2013) note that regular support and maintenance of Learning Management Systems is a vital aspect of maintaining security, and the workload demand can be immense: “performing upgrades, backups, monitoring performance, etc.” (p. 354). As such, it seems that having institutional support



for the LMS is an important consideration, along with investing in a range of synchronous and asynchronous communication tools for instructors and students (Downing, Dymont, & Budd, 2013).

Additionally, as Jones (2015) suggests, student support services such as writing assistance, disability services, and library materials “that are available to on-campus students must also be provided for online learners” (p. 227). Jones further suggests that “[e]xperienced instructional course designers are indispensable to building high quality online courses and providing support during at least the initial course offering” (p. 227). Finally, another consideration for institutions is in regards to online delivery challenges the “[t]he ‘seat time’ measure on which common understanding of a “credit hour” is largely based”, making it “increasingly difficult to define a common measure for instruction” (Sener, 2015, para. 4). Sener suggests a “need for a common standard by which different learning environments can be compared” (para. 4).

### 9.6 Challenge: Barriers to Student Learning

While online learning is often touted as a (or even ‘*the*’) solution for the recruitment and retention of working students, particularly those in rural/remote areas, there seems to be less attention paid to identifying and addressing student learning barriers in an online modality. Yet, Donohue, Fox, and Torrence (2007) are clear that before introducing any content at all, online instructors must “recognize and address the significant barriers to effective online learning that early childhood educators face” (p. 36). Certainly, it is abundantly clear from the review of the literature that there are indeed multiple barriers to student learning for pre-service early childhood educators internationally – such as cost (Prezentas & Theodosiou, 2013) and attending post-secondary either for the first time or after a long hiatus (Fox & Donohue, 2009) – that are only compounded with the addition of Internet technologies. In Australia, Taylor (2009) found that the majority of online ECE students were “from traditionally marginalised groups; mature aged women from regional areas who are first in family to attend university” p. 4), and that building a professional identity was a main transition challenge for these students. Exit interviews from withdrawing students in this study “revealed that that students were aware that they



would be time poor but the prospect of extending a four year degree to potentially six or eight years with a more manageable workload seemed impractical” (Taylor, 2009, p. 3)

Other barriers to learning for online early childhood students include, but are not limited to: *digital literacy, lack of support; different demands and expectations than face-to-face; collaboration, belonging, and group dynamics; and access to reliable technology.*

### Digital Literacy and Lack of Support

Supporting positive experiences with technology for students is important, as it increases the likelihood that they will be “willing to engage in future technology-rich experiences in an increasingly technology-oriented society” (du Plessis, Walker, & Naughton, 2008, p. 6) However, digital literacy levels and subsequent confidence with technology tends to be low for many early childhood preservice learners, (Prentzas & Theodosiou, 2013), resulting in a sense of ‘tech phobia’ (Donohue, Fox, & Torrence, 2007). Compounded with the lack of support students express they feel (Newton, 2007), it is abundantly clear

*“early childhood learners need consistency, stability, timely support, quality instruction, and transparent technology; and early childhood faculty and trainers need help with instructional design, strategies for conveying their personal teaching style, content knowledge and expertise, timely support for technology issues, and a learning platform that fits both their needs and the needs of the learners”* (Donohue, Fox, & Torrence, 2007, p. 38)

It is also important that students are aware of multiple supports that are available to them as online learners – du Plessis and Naughton (2008) found that instructors reported that supports available to the students did not seem to be utilized, and thus the instructor felt as though they became the sole source of information, noting “there seemed to be the understanding that we as [online] lecturers were the only people students could go to for support” (p. 6).

### Different Demands & Expectations than Face-to-Face

Learning online certainly makes different demands on learners as compared to those in the face-to-face classroom. As Donohue, Fox, and Torrence (2007) note, in order to be successful, online learners must “be both independent and collaborative learners; to be able to access and use information from a variety of sources” (p. 35), be in the habit of



critical reflection on practice, have skills working with a computer, and generally have to be more dependent on their reading and writing skills. Yates, Brindley-Richards, and Thistoll (2014) note that because distance learners “typically spend more time in employment, looking after dependents, and dealing with financial stress” (p. 30), study is only one of many priorities in students’ lives, so active student engagement with course material can be particularly challenging. Indeed, in a case study of students who were unsuccessful in completing an online preservice teaching course (and thus repeated it in a face-to-face offering), Thompson et al. (2013) found that self-regulated learning was a major contributing factor – “the students’ personal lives complicated their academic lives, which in turn impacted their ability to self-regulate their learning” (p. 240). Taken together, and compounded with the added technological demands, it is not surprising that online courses generally have a higher student withdrawal rate compared with face to face (Prentzas & Theodosiou, 2013).

#### Collaboration, Belonging, and Group Dynamics

Collaboration in an online medium brings particular challenges with dynamics of group interactions (du Plessis, Walker, & Naughton, 2008). Certainly, the “ways in which we communicate face-to-face are reconstituted when we move online,” (Shi, et al., 2008, p. 6). Each computer mediated communication technology has its respective limitations, particularly with the absence of paralinguistic/nonverbal cues and contextual information (An et al., 2009; Shi et al., 2008). As Shi et al. (2008) note, between frustrations with interactive technological tools, the “feeling of ‘talking in a vacuum’” and having some participants fail to actively contribute through ‘free riding’ and ‘social loafing’ (p. 17), students’ enthusiasm and motivation for collaborative learning in an online forum may be damaged. Certainly, Thompson et al. (2015) note the heightened level of effort it takes for students to create an online presence and be a contributing member of the online community. Class size itself can be a challenge to group dynamics – Davis Aspro et al. (2009) suggest it “has a significant effect on interactivity and fruitful discussion (p. 4).

#### Access to reliable technology

Davis Aspro et al. (2009) note that early childhood instructors “hold a strong ‘ethic of care’ concerning students’ access to, and capabilities” with information and communication technologies, particularly those in rural and remote locations with poor



quality internet access and computer hardware. (p.9). For this reason, some instructors “query whether [they] can provide a quality, equitable learning experiences for students who have real difficulties with capabilities and access to [information and communication technologies]” (p. 9). Certainly, the “appropriateness of online learning will depend very much on the groups being targeted for distance education,” as **access** “remains a critical criterion for choosing technologies for distance education” (Bates, 2008, p. 7). Along with cost (many students noted having to purchase high-speed Internet specifically for the online course; *see Nelson, Nichter, & Henrikson, 2010*), one of the main challenges to access seems to be speed of Internet connection. Common connectivity issues disrupting student learning are often related to downloading large video and PDF files and participants being repeatedly ‘kicked off’ or disconnected from the online classroom (Woodcock, Sisco, & Eady, 2015). It is important to note that for this reason, instructors “sometimes struggle to come to terms with the fact that there may be a significant gap between what they envision online learning could be and what the reality of it is<sup>24</sup>” (Eaton et al., 2015, p. 5).

#### Considerations: Reducing Barriers to Student Learning

Certainly, if students do not have basic computer skills and comfort as well as reliable access to the computer and internet, students will find “managing the technology and online learning environment, in addition to learning the course content, to be overwhelming and discouraging” (Donohue, Fox, & Torrence, 2007, p. 36) As such, multiple researchers note the vital importance of being well-prepared and well-supported before starting any content. Some practical suggestions for instructors are to:

- **Be explicit with students from the start about the challenges inherent to online preservice education** (Downing, Dymont, & Budd, 2013)
- **Use pre-surveys and self-evaluation tools to assess student prior knowledge, learning styles, when they will be completing coursework, what kinds of technology access, and subsequent needs for support** (Dolan et al., 2009;

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<sup>24</sup> See *Appendix D* for an example of an innovative, realistic, and responsive approach to online delivery in the United States – modified from the original idea using the Second Life platform for interactive scenario-based learning, to a similar platform more appropriate for student and technological realities.



Donohue, Fox, & Torrence, 2007) – *“its not very helpful to have a support system in place that is only available from 9 a.m. – 5 p.m. Monday-Friday if most of your learners will be participating before work in the morning, later in the evenings, and over the weekend”* (Dolan et al., 2009, p. 91)

- **Use post-course surveys for gathering feedback on how to change or improve delivery and support for future students** (Dolan et al., 2009)
- **Offer various means and mediums of support (email, phone, ‘how to’ materials)** (Dolan et al., 2009), **with high levels of interaction, one-to-one mentoring and personalized assignment feedback** (Eaton et al., 2015)
- **Take substantial responsibility for fostering a collaborative, learner-centred environment** (du Plessis, Walker, & Naughton, 2008), **intentionally building in a method of cohort building – instructor cannot assume the group will bond/build positive relationships, so relationships must be developed with purpose** (Zigler et al., 2008)
- **Use discussions to develop a strong learning community** (Dolan et al., 2009), **with identity and culture at the centre** (Hall, 2015), **making sure from the beginning that students are willing and prepared to engage – set clear expectations** (du Plessis & Naughton, 2013)
- **Make help resources varied, well advertised, and easy to access** – Dolan et al. (2009) suggest links on every screen to Information Technology helpdesk
- **Scaffold students’ technology skills through learning activities** (Prentzas & Theodosiu, 2013). **For example, provide and encourage (and/or require) access to the LMS and any other technologies before course begins, - giving students time to explore and experiment, and play, thus reducing the learning curve before the added cognitive load of coursework is added** (Dolan et al., 2009; du Plessis, Walker, & Naughton, 2008; Eaton et al., 2009)
- **Be realistic - there may be a significant gap in what you envision for innovative online teaching and the kinds of technologies/speed of Internet access students have reliable access to** (Eaton et al., 2015; Sheridan & Kelly, 2012)



- **Leave discussion boards open after courses end, so graduates can continue to cultivate professional community (Eaton et al., 2015), and use 21<sup>st</sup> century tools (ex: Facebook, Twitter) to encourage meaningful learning communities for graduates (Conceição, 2011; Hall, 2015)**

### 9.7 Challenge: Barriers Specific to Indigenous Student Learning

While distance/online learning is often identified as a key strategy that institutions implement to meet early childhood practitioner training needs in Indigenous communities,<sup>25</sup> this section highlights how responding to the needs of Indigenous students and communities is much more complex than simply offering online programs. In addition to the barriers identified above, multiple researchers internationally specifically highlighted barriers and considerations for Indigenous students in online learning environments.

#### Access to reliable technology

Though access has already been identified as a student barrier, the barriers to access in some Indigenous communities are multilayered and warrant additional consideration. A large body of Canadian research describes the ‘digital divide’ continuing to face many Indigenous – particularly rural and remote – communities (McMahon, 2014). In BC, household Internet access is high (86% in 2014, Canadian Internet Registration Authority). Though difficult to track current percentages, it is clear, however, that broadband<sup>26</sup> Internet service is still disparate, often only available to those in urban areas (CIRA, 2014). Of course, this is highly pertinent knowledge for stakeholders in online learning, particularly when considering the speed of access required for synchronous learning activities.

In 2016, the *Connect To Innovate* project was launched, aiming to “bring broadband Internet access to 300 rural and remote communities across Canada” (Government of Canada, 2016a, para. 2), noting that “[a]ccess to broadband is essential for living, working and competing in a digital world” (para. 1). Following a recent

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<sup>25</sup> For example, in BC, a large number of child care program staff had not completed certification in ECE – 85% in the north, and 35% in the interior (*see BCACCS, 2012b*)

<sup>26</sup> Broadband Internet service is “always on (as opposed to dial-up, where a connection must be made each time) and offers higher speeds than dial-up services” (Government of Canada, 2016b, para. 11)



review, the Canadian Radio-television and Telecommunications Commission (CRTC) established a universal service objective (*Closing the Broadband Gap*) for all Canadians, regardless of geographical areas, to have access to Broadband Internet – dedicating up to \$750 million in funding over the next five years for areas that do not currently meet the stated broadband targets (Government of Canada, CTRC, 2017), with a higher contribution limit for projects serving Indigenous communities (Government of Canada, 2016b). While this is heartening for discussions around access to online learning, it can also be complex, as McMahon (2014) notes that emergent infrastructure of the ‘network society’ can be seen to be linked to the dialectic of colonialism/self-determination (see McMahon, 2014).

### Culturally safe and relevant curriculum and learning environments

Whether education is online or face-to-face, the BC Aboriginal Child Care Society (BCACCS, 2012) is clear that “[in order to deliver services that reflect First Nations visions of quality, the First Nations [early childhood] workforce requires training that differs from the programs presently available in most of the training institutions “approved” by the BC Ministry of Children and Family Development” (p.11). While three of the six online programs are recognized as offering an ‘Aboriginal Perspective’ (Government of BC, 2016), an extensive survey (BCACCS, 2012b) found that the majority of distance students who completed their training at an approved institution offering an Aboriginal perspective rated their courses as “poor” in relation to teaching the historical impacts of colonization on First Peoples of Canada. While some of the instructors at these programs similarly their courses as ‘poor’ in this area instructor responses varied greatly, with many instructors perceiving (the same) courses as ‘excellent’ in this area, while students rated them ‘poor’ (BCACCS, 2012b). Certainly, the BC Aboriginal Child Care Society (2012a) has expressed concern about what “quality” means to them, “[a]pproval by MCFD is not a guarantee or indicator of quality” (p. 12) (*see First Nations Early Childhood Development Council, 2011 to access the BC First Nations Early Childhood Development Framework visions of quality*), with additional concerns about the transparency and process of how any given institution is given the recognition as offering an ‘Aboriginal perspective.’ One notable challenge for online programs and instructors in relation to First Nations visions of quality, is how to



co-create *locally* appropriate and relevant place-based curriculum, when students in any given program and or/cohort may reside all over the province.

In addition to culturally relevant curriculum, Newton (2007) notes the vital importance of culturally safe learning environments for Indigenous students. Marie Battiste (2002) notes how challenging it is to “find a respectful way to compare Eurocentric and Indigenous ways of knowing and include both into contemporary education” (p. 3). Dreamson et al. (2017) suggest that because a Learning Management System (LMS) is a learning environment, it constitutes “a sociocultural learning place where students’ diverse cultural perspectives need to be reflected” (p. 947). Yet, “culturally inclusive learning in an LMS for Indigenous students is rarely addressed,” and use of the platforms often encourage self-focused pedagogy versus community-driven pedagogy (Dreamson et al., 2017, p. 948).

As can be seen in *Figure 1. Mapping the Complexity*, large strides are being made through Indigenization initiatives at postsecondary institutions across the province to incorporate Indigenous ways of knowing and being,<sup>27</sup> with teacher education in particular drawing “on a range of approaches to incorporate Indigenous ways of knowing, including multicultural and anti-racism education...advancing Indigenous perspectives, content, and pedagogies” (Archibald & Hare, 2016, p. 24). However, it is clear that many Indigenous students still feel culturally unsafe in ‘mainstream’ learning environments. For example, one study in Australia found that Aboriginal and Torres Strait Islander students not only felt culturally unsafe, but experienced significant racism in their practicum settings (Gair et al., 2015, as cited in Ainsworth, 2016).

### Delivery Methods

Another theme that arose through the international literature was the difficulty in finding flexible distance/online delivery methods to accommodate various learning styles and culture of learners (Newton, 2007). An extensive study of First Nations ECE distance students found that, “if people are motivated, have computers at home, and are good

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<sup>27</sup> See <https://bccampus.ca/2016/04/19/supporting-the-indigenization-of-higher-education-in-b-c/>, and *Aboriginal Post-Secondary Education and Training Policy Framework and Action Plan: 2020 Vision for the Future* (Government of British Columbia, 2013b).



independent learners, on-line courses may be effective” BCACCS, 2012b, p. 32), but that these courses are often taken out of necessity, not first choice. Further, distance courses at public colleges that used tele/videoconferencing for synchronous communication was a challenge, as students felt bound by specific delivery dates and times. It was noted that a distance program offered at a private institution was mentioned as a potential option that allows students to mail in assignments at their own pace, but that the cost in comparison to public institutions was prohibitive (BCACCS, 2012b)<sup>28</sup>. In any case, what was clear through the study is that for these focus group participants, local, face-to-face courses were highly preferred, and “participants strongly advocated for community-based training as the best means of building the ECE workforce” (p. 32). BCACCS (2012b) noted the success of the University of Victoria’s First Nations Partnership program, and how, with this program being dormant, accessing culturally appropriate early childhood preservice education remains a challenge for First Nations learners<sup>29</sup>.

#### Considerations: Reducing Barriers to Indigenous Student Learning

The BC Aboriginal Child Care Society (2012a) notes that the main concerns with preservice ECE education in Indigenous communities identified in 2003 at the Aboriginal Leadership forum on Early Childhood development were twofold: **qualified practitioners in larger communities almost all came from outside and lacked understanding of community and cultural protocol;** and **smaller remote communities had difficult attracting qualified practitioners.** Thus, they called on institutions offering early childhood education to develop holistic programs that include Indigenous values, as well as hire more Indigenous instructors and involve Elders in

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<sup>28</sup> It is also important to note that the BC Office of the Ombudsperson (2015) noted that while private institutions “may offer a variety of delivery styles, schedules and programs that students cannot always access in public post-secondary education the flexibility, accessibility and diversity is not, [however], without inherent administrative and regulatory challenges” (p. 3). This was in the context of a systemic report responding to complaints from students at private career training institutions who were experiencing difficulties with limited powers to address student complaints – including lack of accessibility and arbitrary timelines.

<sup>29</sup> See Van Gelderen (2017) for a description of “*Growing our Own*” – a culturally relevant and in-community Indigenous preservice teacher education in Remote Northern Australian Territory. See also <http://www.cdu.edu.au/education/growingourown>



instruction. The *BC First Nations Early Childhood Development Framework* identifies provincial organizations as being responsible for identifying and exploring the pros and cons of ECE preservice delivery options, collaborate with communities to develop recruitment and retention plans, and support research partnerships with post-secondary institutions and researchers (First Nations Early Childhood Development Council, 2011).

With the release of the Truth and Reconciliation Commission (2015) Calls to Action, there is an even greater sense of urgency to respond, as it calls upon the governments,

*“in consultation and collaboration with Survivors, Aboriginal peoples, and educators, to...[p]rovide the necessary funding to post-secondary institutions to educate teachers on how to integrate Indigenous knowledge and teaching methods into classrooms (p. 7).*

Certainly, “[d]eveloping and delivering locally-appropriate training programs are costly undertakings” (BCACCS, 2012a, p.7), as the “issues and challenges facing the First Nations ECE workforce are long-standing and complex” (BCACCS, 2012b, p. 43). While there are no simple solutions, and culturally relevant curriculum and delivery will look different in every community, the possibilities of a hybrid or blended online/face-to-face approach were highlighted across the international literature. For example, an extensive report exploring effective online teaching and learning practice to enhance learning outcomes for Māori learners concluded that “[b]lended courses that incorporate kanohi ki te kanohi (face-to-face) interaction and recognition, and the building of whakawhanaungatanga [relationships] are more likely to meet Māori student needs than fully online courses” (New Zealand Council for Educational Research, 2004, p vii). This seems to fit with the findings from the BC Aboriginal Child Care study as described above. It is also fitting with findings from a prior exploration of mentoring for ECEs in the province, who identified online learning as a useful supplementary tool, especially for those living in rural areas of BC, but strongly felt that “ECEs still need that-face-to-face contact as well” (Mirau, 2015, p. 51). It is important to note that blended/hybrid approaches are “not simply a stepping-stone to fully online programs, but are a valid alternative method of delivering pre-service [teacher] education in their own right” (Eaton et al., 2015, p. 6).



Snow (2016) notes that a 2012 report from the Collaboration for Online Higher Education and Research found that higher education institutes in Canada have been “increasingly encouraging faculty to adopt blended learning designs in response to a number of issues” (p. 3) including the diverse needs of students, and that Snow’s (2016) research “suggested that blended learning over fully online or hybrid courses may have in fact offered advantages over face-to-face programming when both Indigenous pedagogies and community contexts were considered” (p. 4)

Rao, Edelen-Smith, and Skouge (2016) describe how a Hawaiian school delivering preservice special education via distance considered how to meaningfully use a combination of synchronous and asynchronous technologies to deliver curriculum consistent with principles of social constructivism, and particularly in response to studies suggesting many Indigenous students (particularly those in rural and remote areas) have noted the value of the support and connection made possible through synchronous class sessions delivered online – all within the reality that many students living in rural and remote Pacific Islands locations lacked reliable computer and internet access in their homes. As such, the program was set up so that “students on each island gathered together in a central conference room to attend the [2-2.5 hour] weekly virtual class with the instructor, who was located in Honolulu,” with students “logg[ing] into Blackboard Collaborate on one computer... shar[ing] one microphone” (p. 52) for large group discussion. Students then broke off into smaller groups for in-person discussion, using the ‘breakout room’ feature of Blackboard so the instructor could “go between all the breakout rooms, listening into the various small group discussions” (p. 54).

In BC, The Provincial Learning Network (PLNet), “founded on the principle of universal access,” (para. 2) provides connection to secure high speed Internet in schools and other public institutions in BC<sup>30</sup>. This potentially allows for online students in the province of BC who do not have secure high speed Internet at home to complete their work individually and/or meet synchronously together within schools or other central meeting areas in their community as described above.

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<sup>30</sup> (<http://www2.gov.bc.ca/gov/content/education-training/administration/kindergarten-to-grade-12/provincial-learning-network-plnet>)



Ongoing professional learning opportunities for post-secondary instructors again arise as an important consideration for reducing barriers to Indigenous student learning. In 2016, BCCampus (on behalf of the Ministry of Advanced Education) began facilitating Indigenization of Curriculum and Cultural Awareness training for post-secondary institutions across the province. One notable opportunity for instructors is a six-week Massive Open Online Course (MOOC) through the University of British Columbia: *Reconciliation Through Indigenous Education*<sup>31</sup>

Hall (2015) highlights five themes for success emerging from stories from Indigenous student learners in the Australian tertiary context: *holistic, learner centred approach; high expectations environment; embedded, meaningful, explicit, and culturally inclusive curriculum; learning relationships; and a strong learning community with identity and culture at the centre*. Similarly, Burgess (2016) describes how development of a ‘pedagogical cultural identity,’ or “conflating pedagogy, cultural knowledge, lived experience, and identity” was “critical to an understanding as cultural being, teacher, and learner” (p. 109) for the Indigenous Australian students in the study.

To accommodate cultural needs and inclusivity within Learning Management System (LMS) design, Dreamson et al. (2017) suggest that LMSs should not be viewed solely as a digital repository, but:

- 1) Be regarded as technology- rich learning places “where effective and efficient participatory and collaborative learning are designed, supported, activated and experienced towards building an open learning community” (p. 959)
- 2) Offer multiple communication channels such as one/many, one/one, etc. to facilitate relationships, collaboration, and interdependent learning
- 3) Reflect pedagogical values that strengthen Indigenous identity –they propose communication, collaboration, community, and interculturality

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<sup>31</sup> <http://pdce.educ.ubc.ca/mooc/>



In the case of practicum, drawing on participants' responses to the study in Australia in which Indigenous students experienced racism at practicum sites, Gair et al. (2015, as cited in Ainsworth, 2016, p. 30) offer three strategies for support:

- 1) Formalized partnerships with Indigenous communities to provide students with 'cultural mentors'
- 2) Thorough placement preparation (visiting sites with students, guiding through the culture of organization and policies, etc.)
- 3) Assessing/screening mentor educators for 'cultural suitability'

### 9.8 Challenge: Place-Based Education and Pedagogies in an Online Sphere

Sener (2015) notes how by virtue of removing geography as a defining element in shaping curriculum, online learning has blurred the relationship between student, institution, and curriculum. This is a particularly pertinent consideration for the field of early childhood education, where the curriculum is driven also by the needs of children, families and communities. When delivered face-to-face, in one particular community, preservice education can situate/locate discussions and learning activities within the community – an approach often referred to as place-based education. Best et al. (2017) note that while definitions of place-based learning have varied, they tend to centre around Sobel's (2004) conceptualization of "using local communities and environments as a base from which to teach," and "the hands-on and real-world learning that connect people and place, engaging students as active, contributing citizens" (p. 93) When students are disbursed geographically, the facilitation of place-based education complexified. As Janz (2016) suggests "[a]ttempting to integrate a technological learning environment with a [place]-based learning environment creates certain challenges. Some might even argue that these two learning environments are antagonistic" (p. 47) Certainly, Smith et al. (2016) note how online instructors of outdoor education "struggled with how to maintain place-based approaches in the shift to teaching online," and remain "less than convinced that online pedagogies can foster connection to place in authentic or meaningful ways in [our own] teaching" (p. 311). Yet, as Janz (2016) suggests,

*While [place]-based educators might be resistant to technology, the importance of integrating technological learning environments into [place]-based pedagogies cannot be understated today and in the future. Technology is going to become an increasingly imbedded part of the experience of [place]" (p. 53-54).*



When thinking with congruency between higher education and early childhood pedagogies (see Section 8 for more details), it is important to also consider place-based pedagogies. Iorio Hamm, Parnell, and Quintero (2017) describe how many early childhood educators are reconceptualizing their pedagogy in resistance to traditional/dominant discourses of stage development and their focus on the individual child to “**engaging with multiple narratives of a place, acknowledging the politics and knowledges constructed within and about a place, and rethinking practice to support strong relations with place**” (p. 122), including entanglements with humans and the more-than human. They posit that

*Inclusive, respectful place-based pedagogy that is reconciled to the lands and people locally situated should be part of teacher education and, in turn, part of all classroom teaching. Beginning with place, teacher educators, animal worlds, teachers, stories, young children, natural worlds, families, cultural contexts, communities and so on, charges the communities of practice and the entangled places with sustainable ways of living, learning, interacting, and being together. These notions offer and move toward pedagogies based in matters of concern and honor the many entanglements within teaching practice. Entangling place and matters of concern contributes to a complex view of teaching and learning and supports impactful connections with the planet grounded in living-with and acting-with the more-than-human (Iorio et al., 2017, p. 133).*

It is important to note, as Bell (2017) explains, how posthumanist/new materialist theories (such as above) are just beginning to grapple with “an understanding of the liveliness of material and other-than-human world” (p. 17) that Indigenous philosophies have understood and incorporated for centuries – see for example Simpson (2014) for a discussion of *Land as Pedagogy*.

### Considerations: Place-Based Pedagogies in an Online Sphere

‘Walking the talk’ of enacting place-based education and pedagogies from a virtual space certainly brings new challenges for ECE instructors. While students’ location in their (geographically disbursed) home communities certainly opens up pedagogical possibilities, the instructor must be cognizant of this challenge, and consider strategies for encouraging and facilitating meaningful opportunities for students to engage with their community. This is an area in which MCFD is well-placed to foster opportunities for



online instructors in BC to engage in inquiry and publication to contribute to cutting edge research findings.

### 9.9 Challenge: Practicum

Consistent with Meier’s (2017) extensive review of the topic of practicum in online early childhood education<sup>32</sup> the current review found a serious lack of information on the topic. Available literature tends to focus on strategies for using technology to enhance traditional face-to-face delivery, as opposed to strategies for facilitating a fully ‘e-practicum.’ Further, Meier (2017) notes that much of the current literature related to preservice ECE practicum experiences also tend to focus more on *whether* field experience is required, not *how* field experience is being facilitated. This is troubling, given that much evidence supports extensive supervised field experience as being a critical piece of 21<sup>st</sup> century preservice education (*see Darling-Hammond, 2006*). Atkinson’s (2016) extensive literature review of practicum in human service professions notes how most students see practicum as “the key component in their education and induction into the profession,” as it is the “site for students to consolidate knowledge and skills and to be socialized into the profession – the bridge between the academy and practice” (p. 1). Certainly, in BC, “[p]racticums are an integral part of the ECE training experience” (BCACCS, 2012b, p. 35), and are required at recognized institutions in the province in order support and evaluate educators’ competencies via the *BC Child Care Sector Occupational Competencies Assessment Tool*. This makes the relative lack of literature regarding how practicum experience in early childhood education is currently being facilitated (online and otherwise) particularly troubling.

It should be noted that even though practicum is a built-in portion to most pre-service education programs, information for this section needed to be actively sought out with ‘*practicum*’ and ‘*field experience*’ specific search terms, as evaluations and discussions of online programs centred almost solely on theory-based course experiences. In order to have a fuller picture of some of the challenges and strategies in ‘e-practicum,’ this review of the literature includes research in other health and human services

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<sup>32</sup> See *Appendix E* for a summary of Meier’s 10 resultant themes  
See also *Section 10.3.3* for a description of how practica are facilitated online at Northern Lights College, one distance institution in the province



disciplines that 1) offer distance programs, and 2) require practicum experiences as a part of practitioner preservice education.

Meier (2017) notes that the topic of practicum has “historically been fraught with practical, theoretical, and political issues” (p. 7). Many researchers have noted how practicum can be especially problematic in the perpetuation of perceived disconnection between theory and practice, because of the continuing separation of education responsibilities of institutions (theory) and centres (practice) (see Allen, Ambrosetti, & Turner, 2013). Ainsworth (2016) describes the complexity of practicum on many levels – its conditions of multiplicity, uncertainty, logistical challenges, and dynamics of power. This complexity – particularly that of logistical challenges – can be even greater when facilitating practicum online, when the instructors and host institutions are often in a different geographical area than students’ home communities (in which practicum placements generally take place), and instructors/institutions may or may not have connections to potential placements or mentor educators.

### Site Selection

Tobias and Huff (2016) described three general approaches to online practicum site selection in decreasing order of frequency: self-selected from student-identified site (then approved by institution), self-selected from pre-approved institutional list of sites, student-site match process. In BC, practicum placements “can be very difficult to arrange in small and remote communities. There are few sites and many have to juggle students from multiple programs” (BCACCS, 2012b, p. 35). Additionally, experiences vary (BCACCS, 2012b), with some profoundly negative (see Section 9.7, noting the racism some Indigenous students have experienced at practicum sites).

### Observation/assessment

What became immediately apparent in available literature is that for relational programs, the biggest challenge (and concern) seems to be experimenting with facilitation strategies that closely replicate face-to-face interaction/relational aspects. In traditional face-to-face delivery, practicum is delivered in a triad model made up of the student, the instructor, and the mentor educator for day-to-day supervision (Meier, 2017). Clearly, fully online ECE programs require new processes and procedures for the complexity and dynamics of



online facilitation (Meier, 2017). Because BC students may be participating from anywhere in the province, instructors generally do not have the ability to make in-person visits to preservice educators' practicum sites due to both geographical/time and budget constraints. As such, challenges associated with *observation*, *performance assessment*, and *mentoring from a distance* arise (Meier, 2017). Many online human services practicum courses require students to take video of themselves in the practicum placement as a tool for observation/assessment, as well as student self-reflection, and this seems to be a strong 'best practice' norm in mitigating this challenge (*see below in Considerations: Practicum*). In cases when students are not required to submit videos, there is a large concern about relying heavily on third party reports about student progress (Meier, 2017), especially due to the limited opportunity to observe students' non-verbal communication (Nelson, Nichter, & Henricksen).

### Technology and Security

While submitting recorded video of the student in the practicum placement is an effective method for 'observing' from a distance, it also brings about some added technological and security challenges, and "as a result the field of human services education is faced with new challenges for maintaining ethical and program standards" (Carlisle et al., 2013, p. 17). First, the technological access and skills required on the part of the student to record and share video can be a challenge in and of itself; technical difficulties and/or failure was one of the most commonly cited challenges in the literature (Carlisle et al., 2013; Nelson, Nichter, & Henricksen; 2010; Meier; 2017). Compliance with federal standards with accessibility of electronic/information technology for people with disabilities<sup>33</sup> can then become more difficult (Meier, 2017).

Perhaps most pertinently, the increased risk to confidentiality when sharing recorded video is also a major challenge that is important to mitigate (Carlisle et al., 2013; Gronn et al., 2013; Nelson, Nichter, & Henricksen, 2010; Meier, 2017). Carlisle et al. (2013) caution that even when sharing within a secure site/delivery method, it is

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<sup>33</sup> Consultation took place July 2016-February 2017 on planned Canadian (federal) accessibility legislation (see <https://www.canada.ca/content/dam/esdc-edsc/documents/programs/disability/consultations/No.653-Layout%20Discussion%20Guide-EN.PDF>). See also *BC Accessibility Plan 2024* <http://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/accessible-bc/accessibility-2024/docs/accessibility2024-two-year-update.pdf>



sometimes unclear who else might have access (ex: institutional and/or 3<sup>rd</sup> party system administrators), and as such, it is vitally important for instructors to fully understand their choice of technology. As an added layer of challenge, some ECE centres do not allow videotaping of children at all (Meier, 2017).

### Support for and collaboration with mentor educator

As many researchers have noted, the mentor educator who “hosts, supervises, and works with the teacher candidate on a daily basis during the field experience, plays a fundamental role in the teacher candidate’s growth and development” (Petrarca, 2013, p. 150). Yet, there is a major lack of support, training, and collaboration to assist the mentor (Petrarca, 2013), in this role which can be multiple and complex, particularly when adding the additional component of students learning via distance. In Turkey, for example, mentor educators for distance students found themselves in multiple roles: self-trainers, networker, social supporter, academic supporter, and psychological supporter (Koç, 2012). It can be even more difficult for instructors at a distance to know how to adequately support mentors in their role, as they often do not know their current skill levels (Meier, 2017).

### Considerations: Practicum

Although there are a number of challenges to navigate when facilitating practicum online, there is also a range of benefits, including: **flexibility and convenience in scheduling seminar sessions and/or connecting all 3 members of the triad (student, mentor, instructor)** (Meier, 2017), a **potentially larger range and more diverse selection of practicum sites** (Carlisle et al., 2013; Nelson, Nichter, & Henriksen, 2010), and **saving time and money that otherwise may have been spent travelling to sites, particularly in remote areas** (Carlisle et al., 2013; Nelson, Nichter, & Henriksen, 2010, Meier, 2017). Petty, Heafner, Farind and Plaisance (2015) describe the *Windows into Teaching and Learning Project* at an institution in the United States, in which carefully selected mentor teachers were chosen for distance students to observe through both synchronous and asynchronous platforms – pre-recorded videos, and the university-supported web-conferencing software. After the observations, online collaboration and discussion between students-mentor teachers and mentor teachers-mentor teachers allowed “a unique opportunity to analyse, evaluate and reflect upon pedagogical strategies and



thinking” and a “rare opportunity for collaboration with other professional educators” (p. 376). While sharing about practicum sites via the Internet can be a security challenge, when done appropriately it can be seen as a benefit as it **provides a useful digital record or audit trail of communications** (Carlisle et al., 2013).

In order to mitigate some of the challenges outlined above, the following strategies are identified in the literature:

- **Reimagine practicum within larger ‘collective ethics’** (Ainsworth, 2016, p. 17)
- **Use a constructivist loop of instruction: read, implement, reflect, receive feedback** (Meier, 2017)
- **Require student (asynchronous) video recording in the practicum setting as a tool for student self-reflection** (Gronn et al., 2013; Meier, 2017) – *one study found that quality & quantity of reflection in this way was better than compared to face-to-face; difference attributed to “[preservice educators] ‘owning’ their video whereas traditionally, supervisors ‘own’ their observation notes”* (Gronn et al., 2013, p. 252).
- **Experiment with using the asynchronous student video recordings as a tool for collective reflection with small groups of students/instructor** (Nelson, Nichter, & Henricksen, 2010)
- **Experiment with synchronous two-way videoconferencing (Skype, FaceTime, etc.) of the student at the practicum site when technology allows for this option** (Dymond et al., 2008; Meier, 2017)
- **Find times and modes of discussion including all 3 members of triad (student, instructor, mentor** (Meier, 2017) – *webinar-style meetings such as Skype, Blackboard Collaborate, Zoom, FaceTime, Go-To-Meeting as some suggestions*
- **Use creative modes of student critical reflection and documentation of learning (ex: journaling) – Twitter was identified as one tool for students to focus their thinking/respect purposefully on experiences and reduce feelings of isolation** (Wright, 2010)



- **Support communities of practice at practicum sites by grouping students together at sites when possible** (Ainsworth, 2016), **and in cohorts for seminars** (Meier, 2017)
- **Form strong partnerships and collaboration with practicum placement sites with clear definitions, articulations, and enactment of respective roles between institution and practicum site** (Allen, Ambrosetti, & Turner, 2013, Meier; 2017) – *This is highly consistent with Darling-Hammond’s (2006) oft-cited study of highly successful preservice education programs*
- **Create a network of placement sites/mentor educators based on positive outcomes with preservice educators** (Meier, 2017)
- **Support mentor educators via professional learning/training** (Meier, 2017; Petrarca, 2013) *See Appendix F for an example online program in Ontario*
- **Provide selections of online ECE resources for students and mentors to access** (Meier, 2017)
- **Consider hiring a field observer to visit students face-to-face** (Meier, 2017)
- **Have a clear technology help process in place through the institution** (Meier, 2017)
- **Develop ethical guidelines that specifically address the use of technology in practicum supervision** (Carlisle et al., 2013) *(ex: informing students, mentors (children, families) about additional risks to confidentiality, ensuring the storage/sharing of documents are in coherence with relevant legislation, use of secure/encrypted delivery methods).*

### **10. Part 3: Innovations and Lessons Learned Across Jurisdictions**

This section explores some innovations and lessons learned about online delivery across jurisdictions by highlighting programs, policies, and processes in Australia, Aotearoa/New Zealand, and British Columbia as inspiration for online early childhood programs in the province. E-Learning frameworks included as inspiration in this project were considered on the basis of how closely they aligned with the International Council for Open and Distance Education’s (2015) recommendation that quality standard models should include the following characteristics:



- **Dynamic** – built in flexibility to accommodate for changes in technology/social norms (therefore rarely refer to specific technologies, but rather services provided)
- **Multifaceted** – holistic view of quality that uses a multiplicity of measures
- **Mainstreamed** – while aimed at quality assurance, intent is for framework to ‘trickle down’ and be used as a tool for reflective practice in course designers/instructors’ daily work
- **Representative** – balances perspectives of multiple stakeholders (in this case, MCFD, instructors, students, and children/families/communities)
- **Multifunctional** – can be used for multiple functions such as instilling culture of department/institution, roadmap for future improvement, etc.

## 10.1 Lessons Learned from Australia

### 10.1.1 Online Mentors and Other 1<sup>st</sup> Year Supports (James Cook University)

*Supporting ECE online students, particularly those from traditionally marginalised groups is resource and time intensive. Universities and individual staff cannot do it alone. Access does not necessarily equate to opportunity, particularly when wider public policy and attendant resourcing continue to militate against success for marginalised groups” (Taylor, 2009, p. 5)*

James Cook University seems to be one institution that takes seriously 1<sup>st</sup> year supports and understanding marginalized position of many ECE learners. In 1991, James Cook University (JCU) became one of the first institutions of higher education in Australia to introduce a peer-mentoring program for new students,<sup>34</sup> (JCU, n.d.a.). In 2013, the program “received a national citation for Outstanding Contribution to Student Learning from the Australian Office of Learning and Teaching for ‘21 years of an institution-wide program of student peer support that has adapted to the challenges of, and engagement

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<sup>34</sup> See <https://www.jcu.edu.au/students/support/student-mentor-program/how-the-program-works>



with, increasingly diverse learners” (para. 1). In 2015, the program received an institution-level excellence award in the category of Reconciliation for “building stronger relationships, demonstrating cultural respect and creating opportunities for study and employment for Australian Aboriginal and Torres Strait Islander peoples” (James Cook University, n.d.a., para. 3) through partnership with Australian Aboriginal and Torres Strait Islander mentors.

Taylor (2009) notes that in 2007, data from the online early childhood education program “highlighted the urgency to develop a peer mentoring program (PMP) that mirrored the success of the internal program... which had been running for 19 years” (p. 4). After collaboration with first year instructors, teaching and learning professional staff, and student mentors, the online peer mentoring program commenced in 2008 (Taylor, 2009). While some pertinent information about the online mentoring program cannot be accessed without JCU credentials, a strategies handbook for the on-campus program (James Cook University, n.d.b) that references off-campus students describes student mentors as those “who have 'been there' and survived, as well as having acquired a great deal of information about the tertiary education environment and how the 'system' works” (p. 1). Examples of mentors’ duties include: contacting mentees in weeks 1, 3, 6, 9 of their first study term; responding to emails; referring to university support services; recruiting other students to the program; encouraging participation in various academic and social events. Taylor (2009) suggests that 2009 enrolment data highlights the online program’s success, indicating, “no student who engaged in the online [peer mentoring program] has withdrawn from the [ECE] degree” (Taylor, 2009, p. 4).

Taylor (2009) suggests that another initiative that has had a positive impact for retention online ECE students at JCU is the “*On Track*” tracking and monitoring initiative. A 2009 JCU report on first year experience notes that Student Equity introduced the *On Track* program in 1998, describing it as a “peer support programme that initiates contact and extends support to first year students who have not attended lectures, tutorials and/or submitted formative assessment” (JCU, 2009, p. 10). According to JCU (2009), the program is now “supplemented by the LearnJCU Early Warning Function which enables



subject co-ordinators to identify, notify and generate reports regarding potentially disengaged students” (p. 5).

Taylor (2009) concludes by stating that while these innovative initiatives have had a positive impact on the online ECE program, “[u]niversity level data is simply not fine enough to provide insights into the issues ECE online students face,” thus “continued monitoring and evaluation at a School *and* cohort level is needed to support ECE online students’ retention and success” (p. 5, emphasis added).

### 10.1.2 Reconceptualizing Online Pedagogies (University of New England)

As Green et al. (2010) describe, “the early childhood education (ECE) academic team at the University of New England in Australia began [a] reconceptualisation process to realign the terrain in which it was teaching and learning” (p. 257) beginning in January 2009. The researchers’ understanding was based around the idea that:

*The ongoing reconceptualisation of early childhood education is, at its very centre, a process of reflection and realignment across multiple, intersecting terrains – those of identity, both of the child and of the early childhood professional; those of curriculum, both in its development and in its enactment; and those of social context and of social responsibility. (Jipson, 2001, p. 4, as cited in Green et al., 2010, p. 257)*

Green et al. (2010) describe how – recognizing the need to shift from both paper-based materials and a learning paradigm of *transmission and reproduction of pre-defined knowledge students need to acquire* – the researchers’ pedagogical reconceptualization involved committing to a collaborative inquiry project aiming to revise 16 online courses across two different one-year ECE degree programs (Bachelor of Teaching, Bachelor of Education). Green et al. (2013) note that the opportunity to implement a new Learning Management System – moving from Blackboard to Sakai – was what “provided the impetus to explore in great depth [our] conceptions of socioconstructionist philosophies” (p. 167). This endeavour “evolved quickly into an unfunded research project” (2010, p. 258). The instructor-researchers reflected both individually and as a team about the pedagogy utilized in their programs, focusing on 6 characteristics:



- 1) *“broad-based, complex problems critical to higher education”*
- 2) *“integration of known and hypothetical design principles with technological affordances to render plausible solutions to complex problems”*
- 3) *“rigorous and reflective inquiry to test and refine innovative learning environments, as well as to reveal new design principles”*
- 4) *“long-term engagement involving continual refinement of protocols and questions”*
- 5) *“intensive collaboration among researchers and practitioners”*
- 6) *“a commitment to theory construction and explanation while solving real-world problems”* (2010, p. 259- 262).

From here, the team “discussed, drafted and agreed on a shared philosophy for the early childhood degree courses” (Green et al., 2010, p. 261) based on “internationally recognised, sociocultural-historical perspectives of early childhood education” (p. 261). In “an effort to communicate explicitly what guides the courses” and “provide a shared position to begin and a projection of where...to go,” the philosophies were outlined to the students as well (Green et al., 2010, p. 261). Green et al. (2013) summarize the three philosophical statements the team crafted:

1) *We believe that our students are members of wider learning circles: their course and units, the university, early childhood contexts, families, local communities and beyond. We respect students’ previous experiences, values, understandings, beliefs and insights. We acknowledge the unique contribution of the personal professional knowledge that all students bring to each unit. Our goal is to facilitate opportunities for students to communicate, reflect, share and respond to, or about, their sociocultural histories in the online environment* (p. 171)

2) *We honour multiple ways of students demonstrating their knowledge, abilities and understandings; and multiple ways of reflecting and communicating. We recognise that teaching is about change. Through the content, assessment, learning tasks and activities associated with each unit of study within the online environment, students engage through understanding* (Hong & Sullivan, 2009) *rather than by understanding, nurturing their ability to be agents of change.* (p. 171)

3) *We believe that social interactions form a pivotal base for effective learning processes. Interaction among students plays a central role in learning. Our goal is to create online units facilitating an authentic form of interaction in which students experience learning as meaningful and supportive. Our intention is for students to feel purposefully engaged in the online learning environment to enhance their own learning goals, rather than because they have been instructed to do so* (p. 171-172)

Today, the team’s philosophy of teaching and learning, along with examples about what their philosophy looks like in practice, is readily available on the University’s ‘About



Early Childhood Education' page (<https://www.une.edu.au/about-une/academic-schools/school-of-education/subject-areas/early-childhood-education>).

After articulating their philosophy, the instructor-researchers then began the course re-design process, with the goal of using “the tools in the online learning environment to scaffold students’ engagement with, and in, contemporary knowledges, cultural sensitivity and understandings, and diverse leadership, problem-solving and collaborative relational skills – all requirements in the complex profession of early childhood education” (2013, p. 173). The university’s primary Learning Management System was WebCT/Blackboard CE6. In the move to “support a socioconstructionist approach to online pedagogy,” the “learning design and technology specialist in the team suggested trialling the Sakai system that was being piloted in the university” (Green et al., 2013, p. 169). The “reconceptualised use of the Sakai LMS was pedagogically aimed at developing a community of learners who built a collaborative knowledge base through resource sharing and personal reflection” (p. 173). Five higher order learning outcomes of *advocacy*, *advancing community knowledge*, *adaptiveness*, and *promisingness* were identified as moving towards online pedagogy as knowledge creation. In practice, this saw students working together to create joint documents and presentations; changing and/or modifying the content as their knowledge and understandings evolved (and having access to the records of developments) through tools such as wikis. (Green et al., 2013, p. 173). See *Appendix G* for more details about the course re-design process and outcomes.

Green et al. (2010) describe the empowering nature of the collaborative project in moving the instructor-researchers from “individuals working along or in pairs trying to implement the institutional changes to distance learning increasingly being imposed on lecturing staff” (p. 270-271) to “regain[ing] control of [their] professional identities and refram[ing their] online pedagogies to reflect [their] philosophies of teaching and learning (p. 271). They are clear that there is no end to the reconceptualization process, both for individual course design, and for the instructors’ professional learning. In 2013, the instructor-researchers embarked on another formal research process, this time exploring their own professional learning and development in moving to an online pedagogy. This time, the aim was *not* on external action or changing the structure of the



learning materials, but rather a self-study approach focusing on their own capacity building (see Green et al. 2013). As is noted in *Section 8*, this is vitally important professional development work that has the ultimate result of supporting student learning.

As Green et al., (2013) note, “it is imperative to communicate, and ultimately, evaluate innovations in this area that are currently underway within higher education.” (Green et al., 2013, p. 176). They suggest that their approaches of self-study, synergy of teamwork, and conceptual underpinnings (*sociocultural-historical theory, teaching through assessment, and learning as knowledge creation*) offer an approach or framework for curriculum design for instructors who seek to integrate their personal pedagogies with online technologies (Green et al., 2010; Green et al., 2013) – see *Appendix G* for more details and concrete examples.

Finally, it is important to that in direct contrast to non-equitable work policies for online instructors described in *Section 9.1*, the “development of online teaching materials [is]...a declared requirement of the ECE team’s workload” (2010, p. 258). Further, the reconceptualization and action research process at this Australian university was “fuelled by the need to respond to new national early childhood education curricula<sup>35</sup>... and professional teaching standards” (p. 259). The instructor-researchers “identified a lack of guidance for higher education related to the new curricula, initiatives and policies on how to achieve the mandatory standards,” noting that [t]he curriculum outlines *what* to teach, but does not define *how* to teach it and what the implications are for higher education and the preparation and professional development of student teachers” (Green et al., 2010, p. 259). In other words, the instructor-researchers believed that

*The problem was not the curricula and other standards, but the pedagogical response to them. The regurgitation of content provided no context-sensitive links to the communities our students were a part of. Neither critical engagement nor ownership was required of them or the community”* (Green et al., 2010, p. 259).

This has major implications when considering the ongoing work of the BC ECE Entry-to-Practice project (*See Section 7 for more details*), highlighting in particular the importance

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<sup>35</sup> *Early Years Learning Framework, National Australian Curriculum, and AEEYSOC National Standards*



of a creating guiding document for post-secondary institutions that outlines guidelines in how to meaningfully respond to potentially complexified entry-to-practice competencies and standards.

## 10.2 Lessons Learned from Aotearoa/New Zealand

### 10.2.1 Reflective e-Learning Guidelines: Prompts for Good Practice

As early childhood teacher educators Donohue, Fox, and Torrence (2007) explain, “[i]ntense research, consultation, and collaboration resulted in the development of the e-Learning Guidelines for New Zealand” Initially released in 2005 and hosted on a wiki for further collaborative development (Kelly, 2014), a 2011 review noted that an update was needed in order to consider newer technologies (such as social media), so a ‘re-launch and refresh’ project to update the guidelines commenced in 2012, re-published in 2014<sup>36</sup>. (Ako Aoterora et al., n.d.a.). The guidelines provide a “framework for integrating diverse pedagogies, guiding professional practice, enhancing quality, and bringing coherence to the delivery of eTeaching and eLearning” (Ako Aoterora et al, n.d.a., para. 2). They are “by no means considered complete, and will, hopefully, be added to as time passes, more research into eLearning is completed and more effective practice emerges” (Kelly, 2014, p. 488). The *e-Learning Guidelines* “offer thoughtful prompts for good practice” (p. 2) and a subsequent list of related resources in **designing, implementing, and enhancing** online delivery of coursework from five different perspectives, those of the:

- 1) Learner
- 2) Teacher (Instructor)
- 3) Manager
- 4) Organisational Leader
- 5) Quality Assurance Body

There are also perspective workbooks (one pertaining to each perspective) available online for organizations to engage with when planning for design and implementation of online learning.<sup>37</sup> As Kelly (2014) notes, the prompts for good practice (and perspective workbooks) “take the form of questions to which Yes/No answers are not expected” (p.

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<sup>36</sup> See Aotearoa National Centre for Tertiary Teaching Excellence, the Tertiary eLearning Reference Group, The Ministry of Education, and the New Zealand Tertiary Colleges Group, 2014 (<http://www.elg.ac.nz/sites/elg/files/eLg%20-%20All%20perspectives%20guidelines.pdf>)

<sup>37</sup> <http://www.elg.ac.nz/resource/perspective-workbooks>



487), but rather critical reflection on each question. This is highly congruent with critically reflective practices in early childhood education, particularly with the *BC Early Learning Framework*, which provides key reflective questions for educators to contemplate as they consider how their practices may (or may not) support the areas of early learning set forth in the document (see *Government of British Columbia, 2008*). And indeed, Donohue, Fox, and Torrence suggest “[c]ollaboration, discussion, and ongoing reflection and review, all best practices in early childhood teacher education, are key elements of the NZ eLearning guidelines” (p. 39). With this in mind, it is perhaps unsurprising that the guidelines attracted international interest at the 2014 World Forum on Early Care and Education, with Canada being one nation identified as having a steady stream of visitors to the website to learn more about the guidelines and associated supporting resources on supporting online learning (Ako Aoterora et al., n.d.b.).

Kelly (2014) notes that in 2005, New Zealand Tertiary College (NZTC), an “[ECE] qualifications provider whose students are high touch, low tech covering a wide age range...saw the potential to offer a viable alternative to classroom learning through the use of quality online provision,” (p. 486) thus utilizing the original e-learning guidelines. Distance learning was prolific even then, with this being mode of study of over 85 percent of the student body at NZTC<sup>38</sup>. (Donohue, Fox, & Torrence, 2007). As Kelly (2014) notes, the guidelines “provided challenging questions to which the staff at the institute had to provide answers,” and each guideline “was considered, agonized over, and answered via a process involving all levels of the organization so that implantation could be achieved with as high a quality as possible” (p. 486). The process:

*offered prompts and reminders to college administrators, presented challenging questions to instructors, offered guidance and focus to the project developers, and ensured that all relevant audiences were considered from conception through*

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<sup>38</sup> Donohue, Fox, and Torrence (2007) attribute this demand to a combination of students living in rural locations paired with the national governance policy that required ECEs to increase their qualifications to a 3-year minimum program by 2012.



*development, implementation, and ongoing review* (Donohue, Fox, & Torrence, 2007, p. 39)

And indeed, Donohue, Fox, and Torrence (2007) explain how the adoption of the guidelines has provided them “with solid criteria for identifying effective online teaching practice and an up-to-date awareness of international research,” thus contributing to New Zealand Tertiary College’s “being at the forefront of eLearning practices in New Zealand and internationally for the early childhood sector” (p. 39). They note that because the guidelines were developed as an always evolving, reflective tool, “they will continue to inform, question, and enable reflection as the online program evolves to enhance the learning outcomes of our early childhood student teachers” (Donohue, Fox, & Torrence, 2007, p. 39).

### 10.3 Lessons Learned Right Here in British Columbia

There are a number of innovations in online education in the Province of British Columbia. For example, the government of BC has recently purchased a provincial access license to the Science of Early Childhood Development (SECD), allowing residents of BC to access a multi-media resource<sup>39</sup>. This has the potential to be a useful resource for online ECE instructors, and for students long after graduation. In addition, BCcampus is a key government agency founded to support e-learning in the province, serving universities, colleges, and institutes by “encourag[ing] professional development and provid[ing] a portal of learner services that facilitates discovery and registration in online and other forms of distance learning opportunities” (Lamberson & Fleming, 2008, p. 3). One example is the Facilitating Learning Online workshops<sup>40</sup>. BCcampus also provides funding for educational development, which involves institutional collaboration and subsequent submission to the Shareable Online Learning Resources (SOL\*R) provincial online repository<sup>41</sup> (Lamberson & Fleming, 2008). Further, BCcampus facilitates the BC Open Educational Technology Collaborative<sup>42</sup>, which provides space for institutions to develop and apply open source online learning environments. This

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<sup>39</sup> <http://content.scienceofecd.com/bcaccess/>

<sup>40</sup> <https://bccampus.ca/learning-teaching/>.

<sup>41</sup> <http://solr.bccampus.ca>

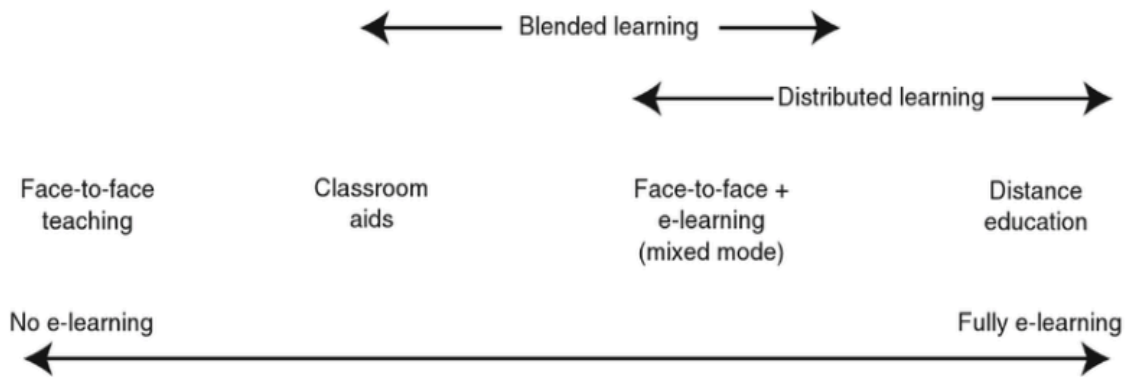
<sup>42</sup> <https://edtech.bccampus.ca/bc-open-educational-technology-collaborative/>



online repository is significant; the most recent Digital Pedagogy Lab post at the time of writing this report – Open Pedagogy and Social Justice<sup>43</sup> – centred on how “[open access resources] can help us rethink our pedagogies in ways that center on access” (Jhangiani & DeRosa, 2017, para. 3), citing a study that found 54% of students in BC could not afford to buy at least one of their assigned textbooks.

### 10.3.1 K-12 Distributed Learning Standards

While there are no provincial online or e-learning standards at the post-secondary level, the Ministry of Education (2010a) released *Standards for K-12 Distributed Learning in British Columbia*,<sup>44</sup> “intended to guide educators in developing quality learning opportunities and resources for the online, e-learning environment” (p. 2) for students in kindergarten to grade twelve. Bates and Poole (2003, as cited in Bates, 2005, p. 9) show a continuum of technology-based learning that identifies distributed learning (below):



The development of the K-12 standards began with a global scan of literature on content development and online learning quality, subsequently creating a ‘made in BC approach’ through consultation and collaboration with educators, industry, and the post-secondary sector (Ministry of Education, 2010a). There are six main standards (outlined below), organized into two categories: *standards for instructional practices* and *standards for leadership practices*.

#### Standards for Instructional Practices:

<sup>43</sup> <http://www.digitalpedagogylab.com/open-pedagogy-social-justice/>

<sup>44</sup> [http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/dl\\_standards.pdf](http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/dl_standards.pdf)



- 1) **Management of Learning** (*clearly communicated goals/timelines/expectations; learning plans for students; instruction about both task expectations and content is provided; information about netiquette and academic integrity provided; students are supported to identify areas of contention and focus discussion on relevant concepts; appropriate learning materials/content/resources that meet highest standards for quality/student usability are selected; assessment strategies and tools go beyond letter grades to make student aware of their progress/mastery*)
- 2) **Fostering Social Learning** (*sense of belonging/community is fostered; student expression in online discussion is supported/builds a sense of collaboration, variety of communication strategies for social interactions among students and instructor are used*)
- 3) **Stimulating Cognitive Processes** (*student interests are fostered and development of new perspectives through student reflection is supported; processes and content foster student engagement; variety of information sources/approaches/techniques are encouraged for exploring problems*)

(Modified from Ministry of Education, 2010a)

Standards for Leadership Practices:

- 1) **Planning for Learning** (*shared vision for distributed/e-learning is created; creation/implementation of group goals is fostered and activity is monitored/evaluated; administration staffing/budget/process is sufficient; site/equipment/learning resources are sufficient to meet standards; lead educator to support online learning and teaching is identified*)
- 2) **Supporting Instruction and Learning** (*high performance expectations set for staff/students; exam invigilation policy in place; instructors are qualified/trained, and have instructional support; staff are assisted/supported to create process and content that foster student engagement*)
- 3) **Communicating about Learning** (*structures that foster collaboration are created; productive relations with parents/community created; instructor/student accomplishments are recognized and celebrated*)

(Modified from Ministry of Education, 2010a)

The *Standards for K-12 Distributed Learning in British Columbia* also provide detailed examples of ‘supporting evidence’ to help quality assurance bodies evaluate whether or not the program or course is meeting each of the six standards (and sub-standards) – See *Appendix H* for summarized version of supporting evidence. In addition to the *Standards for K-12 Distributed Learning in British Columbia*, there are also related *Standards for*



*Digital Learning Content in British Columbia*<sup>45</sup>, which provide in-depth standards for specific aspects of technical, layout (visual design), instructional design and pedagogy, and assessment. The latter detailed ‘checklist’ approach to digital content is more appropriate at for considerations at the instructor or institutional level, as opposed to the quality assurance perspective of MCFD (where broader, more pedagogical-based considerations are of most concern, and are more in line with recommendations from the International Council for Distance Education for dynamic guidelines that reflect rapidly changing technology in the 21<sup>st</sup> century).

### 10.3.2 University of British Columbia

The University of British Columbia (UBC) has a strong e-learning community.<sup>46</sup> While UBC’s e-learning strategy webpage (<http://www.e-strategy.ubc.ca>) was unresponsive and it is therefore unclear if the strategy is still currently in place in 2017, a paper published in 2008 by Lamberson and Fleming noted that at this time, UBC’s e-learning framework was comprised of 5 systems/sets of services, and distributed among a variety of institutional units (IT, Learning and Teaching Centres, etc.).

**Course and Program Support** (instructional and learning design; course development; curriculum development; teaching support; learning support; course & teaching evaluation; registrar/enrolment)

**Learning Community Support** (documentation/learning resource development; pedagogy-focused workshops; technology selection/support communities; community of practice development; scholarship of teaching and learning research)

**Teaching and Learning Skills Development** (application training; development in learning skills, instructional skills, reflective practice)

**Applications Support** (software installation/troubleshooting; database support; identity management provision; user technical support)

**Infrastructure Support** (technology installation/maintenance; server management; application monitoring; security; backup/disaster recovery; data centre operations; network operations)

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<sup>45</sup> [http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/digital\\_learning\\_standards.pdf](http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/digital_learning_standards.pdf)

<sup>46</sup> See the UBC Wiki for more details ([http://wiki.ubc.ca/Elearning:E-Learning\\_community](http://wiki.ubc.ca/Elearning:E-Learning_community))



(modified from Lamberson & Fleming, 2008)

These five broad areas of consideration may serve as inspiration for the Reflective Framework approach proposed for use by MCFD in *Section 12: Future Considerations for MCFD*.

### 10.3.3 Northern Lights College

Northern Lights College (NLC) has a long-standing Early Childhood Education and Care (ECEC) program offered via distance, with online instruction being the main mode of delivery. It is perhaps no surprise that many of their current policies and procedures are congruent with some of the strategies and recommendations for good practice identified within the international literature.

NLC (2015) describes their program model as ‘blended,’ as it blends delivery methods of online, web/videoconferencing, and teleconferencing. In this way, it “responds to community and individual needs by employing flexible, accessible modes of course delivery” (NLC, 2017, p. 1). Course listings on the NLC ECEC website mark courses that include a teleconferencing component with a (T) – nine out of a total 21 courses (NLC, 2017). Students “must be able to attend all the scheduled classes” (NLC, 2012, p. 10) to be eligible for a teleconferenced class, which connects all students with the instructor at the same time. Acceptance into the program is “contingent upon academic and personal suitability” (2017, p. 1) – there is a clear outline of access requirements to be successful in the program for prospective students to view before applying (*email address; computer/high speed internet; camera for practicum assignment photos/videos; telephone communication; licensed ECE centres for practicum placements, and timely methods to submit assignments...such as Learning Management System Dropbox, email, fax, and mail –postmarked to ensure mail-in date was clearly identified*) (NLC, 2017). It is also clearly noted that, provided acceptable placements with diverse experiences and philosophies exist in students’ home communities and/or current workplaces, students can complete without relocating (though relocation may be required for one or more practica when this is not possible) (NLC, 2015). The *Frequently Asked Questions* document (NLC, 2012) provides a wealth of information for prospective



students, such as student/instructor responsibilities, practicum considerations, grading policies and writing style guides.

The Learning Management System *Desire2Learn* (D2L) is used for all 21 courses. Students are expected to “be prepared to engage in discussion and dialogue with other students through “participat[ion] on discussion boards, in chat rooms, and receiving emails” (NLC, 2012, p. 10). Program handbooks clearly state that while course content is not made available before the first day of the course, students are given access to the NLC D2L ‘sandbox’ upon acceptance to the course or program in order to provide students with an informal introduction/orientation to the platform through basic tasks that “will help students to successfully navigate through key features that will be used in D2L” (NLC, 2012, p. 10). A note to students explains the

*‘Sandbox’ name was deliberately chosen as it represents a place to play and explore. It is intended to be self-paced – it is not a course and has no assessed assignments or credit. However, there are a series of basic tasks that will help students to successfully navigate through the key features that will be used in D2L. We hope to ‘see’ you there (NLC, 2016, p. 8).*

Obtaining a criminal record check (CRC) is an important part of pre-service education in BC, as clearance to work with vulnerable populations is required to visit early childhood centres in the capacity of observer or practicum student. NLC is one institution that has made arrangements with the BC Ministry of Justice to provide an institutional access code for students to consent to the record check online using the ‘eCRC’ service (*see Government of BC, Ministry of Justice, 2013 for the Online Service Walk-Through Guide*), so that students do not have to complete any paper forms or visit NLC in person (NLC, 2015). Before the province of BC provided province-wide access for the *Science of Early Childhood Development* multi-media resource, NLC ECEC required students to purchase their own individual license, as accessing the resource is an important part of curriculum (NLC, 2016). An online resource created by NLC itself is the virtual quilt project (<http://vquilt.weebly.com/about.html>), through which students in the second year practicum courses have created banners, magnets, buttons, Pinterest boards, posters, and more as a part of community advocacy projects.



At the institutional level, multiple supports are identified as being available to distance ECEC students, such as the Learning Support Specialist, Aboriginal Student Coordinator, Access Services Coordinator (NLC, 2017). Northern Lights College also has the *Centre for Innovation in Teaching and Learning*<sup>47</sup> that promotes and support excellence in teaching and learning at NLC. Finally, NLC's Policy Manual is easily and publicly accessible online,<sup>48</sup> establishing and communication clear standards that apply to both face-to-face and distance students and instructors.

### NLC Practicum

NLC's (2012) practicum handbook provides useful information about how practica are facilitated online. At NLC, students choose their own placements that meet NLC criteria (licensed centre; currently certified ECE mentor educator), doing so in consultation with instructors. Student choices are identified by: being familiar enough with the local community to choose their own, contacting their local childcare resource centre or health unit for a list of licensed centres, or checking with the preferred practicum list (centres who have identified interest in taking on a practicum student) from the Human Development Education and Care Department (NLC, 2012). There is a teleconferenced orientation for all mentor educators to meet simultaneously with the instructor to have questions and concerns addressed, one week before the student practicum placements begin. Once placements are underway, two tele-meetings (approximately 30 minutes) are scheduled for all three members of the triad (student, instructor, mentor educator) to discuss the students' progress. In addition, instructors contact mentor educators to connect on a one-to-one basis at the beginning, middle, and end of the student's practicum. If an instructor (or, another Northern Lights ECEC instructor, all of whom are experienced observers) is located/available in the community in which the student is completing the practicum, they will visit in-person. Travel costs associated with having students throughout BC necessitates other methods of observation. One requirement and organizational responsibility is for students to videotape and critique themselves, with the tape focussing on the student – not on the children, and adhering to the policy of each

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<sup>47</sup> See <http://www.nlc.bc.ca/About-NLC/Centre-for-Innovation-in-Teaching-and-Learning>

<sup>48</sup> See <http://www.nlc.bc.ca/About-NLC/NLC-Policies>



practicum placement site regarding parent notification on the use of observation/videotaping – and viewed only by the student and instructor. In addition to the traditional triad (student, mentor educator, instructor), there is also a student/staff observer (arranged by the student), whose role is to complete two objective observations of the student in the practicum site for additional feedback (NLC, 2012). Finally, Northern Lights notes that depending on student enrolment and special project funding, they may be able to offer face-to-face courses in the province (NLC, 2015).

## 11. Gaps

Though the literature reviewed provides ample information for this in-depth summary of some common challenges related to delivering preservice early childhood education online, there is still a troubling scarcity in the amount of publicly accessible research, particularly in the area of program evaluation. As Zigler, Ogletree, Pirkle and Schneider (2008) note, “[w]hile there is a growing body of literature on distance learning *courses*, little has been written on the effectiveness of entire distance learning degree *programs*” (p. 170, emphasis added). Though this observation was made almost 10 years ago, it certainly remains consistent with findings in the current literature search – much of the information was gleaned from studies investigating one course, not an entire program. Thus, program evaluation is a major gap in current research.

Evaluation of individual courses tended to focus on effectiveness of the **technology** and **student perception**, versus exploring **student learning**, another gap in the current study. Current research is also lacking in meaningful explorations of how to support instructors in their changing and emerging roles in the online sphere (du Plessis & Naughton, 2013), and lacks issues of empowering online instructors to promote critical reflection and integrate technology into their own pedagogical inquiry (Baran, Correia, & Thompson, 2011). Because a key finding that emerged from background research was “the disjunction between managerial views of the purpose and benefits of online education and the views of academics teaching in those spaces” (Sutherland & Saltmarsh, 2010, p. 68), it is troubling that there was a lack of research exploring and highlighting early childhood instructors’ perceptions of the benefits and challenges of facilitating



preservice education online<sup>49</sup> - particularly when considering the role of place-based education and pedagogies.

Practical issues and guidelines for the choice and utilization of Learning Management Systems that fit the profile of the ECE student body also remains a gap in current research (Prentzas & Theodosiou, 2013). Another glaring omission in the research is any in-depth discussion of ‘eSupervision’ of practicum for fully online ECE programs. Certainly, the evaluation of online preservice early childhood education “seems to be in its infancy, and **effective methods have yet to be developed to adequately assess the effectiveness of how well such programs prepare [educators] for their future professional practice**” (Eaton, et al., 2015, p. 9, emphasis added).

## 12. Future Directions and Considerations

*In the end it's not about the technology, it's about the quality of the teaching and learning, the improvement of teaching practices, and ensuring positive outcomes for young children. (Donohue, Fox, & Torrence, 2007, p. 40)*

This extensive study suggests multiple implications and considerations for online ECE course designers, instructors, and for MCFD as the regulatory body. After summarizing some innovations that might provide inspiration to the province, concrete considerations for institutions offering online courses and/or programs are summarized, followed by considerations for online ECE instructors (split into pedagogical considerations and service delivery/facilitation considerations). Considerations for practicum are listed separately, as they may apply to both the institutional and instructor level of consideration. The report concludes with MCFD-specific considerations.

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<sup>49</sup>The timing of this research project coincided with the 2017 Provincial General Election, thus, the initially proposed method of consulting instructors actively engaged in teaching early childhood education online at registered institutions in BC was not possible and thus remains a limitation of the current study



### Innovations:

- Online mentors (see *Section 10.1.1* for example)
- Tracking/monitoring initiatives to support online student retainment (see also *Section 10.1.1*)
- Reflective online learning frameworks that move away from a yes/no ‘checklist’ approach and towards critical reflection: *dynamic, multifaceted, mainstreamed, multifunctional and representative* (see *Section 10* for more details and for 3 examples including some or all of these characteristics)

### Considerations for Post-Secondary Institutions/ECE Departments:

1. Recognize the high time/role demand of online instructors through the creation of equitable hiring, workload, pay equity, professional development, and succession planning policies
  - a. Hiring preference for instructors with specific credentials and/or experience in online course design and delivery
  - b. Provide online-specific instructional design support through institutional Teaching and Learning Centres
  - c. Support and require ongoing opportunities for meaningful professional development in 1) *ECE-specific content knowledge*, 2) *online pedagogical strategies*, 3) *technology/digital literacy skills*. Preferably, at least some professional learning should encompass the use of technology itself (ex: web conferencing)
2. Create a standard by which online and face-to-face learning environments can be compared – how ‘seat time’ is measured
3. Be realistic - there may be a significant gap in what is envisioned for innovative online teaching and the kinds of technologies/speed of Internet access students have reliable access to<sup>50</sup>
4. Obtain licensing for a reliable and user-friendly<sup>51</sup> Learning Management System that houses information in Canada (for example: *Blackboard, Desire2Learn*), and supports multiple synchronous and asynchronous communication functions

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<sup>50</sup> See Appendix D for an innovative example of scenario-based learning through a platform cognizant of students’ technological realities



5. Hire and retain qualified personnel for infrastructure maintenance, technology support & troubleshooting, instructor technological support
6. Clearly communicate privacy policies (in line with FIOPPA for public institutions, PIPA for private institutions) and social media and other 3<sup>rd</sup> party web technology policies that give students:
  - a. 1) *notice* 2) *knowledge*, and 3) *informed consent* of any web-based tools or platforms used in a course
7. Make available support services for on-campus students (library, writing, disability services, etc.) accessible to online students

### Considerations for online ECE Instructors

#### Pedagogy

1. Articulate a clear teaching philosophy/pedagogy that is congruent with ECE pedagogies, and share this pedagogy with students (*see Section 8, Appendix B, and Appendix C for further information and inspiration. See also #digiped on Twitter*)
2. Use a Backwards Design approach to course development – purpose and pedagogy before technological practicalities (*see Section 8*)
3. Support students (and self) in creating professional identity/pedagogical cultural identity
4. Think about cultural inclusivity and community-focused pedagogy (vs. solely self-focused pedagogy) in the design and utilization of Learning Management Systems (LMS) – more than just a repository of resources
5. Be cognizant of challenge for place-based education and pedagogies in an online sphere and consider strategies for encouraging and facilitating meaningful opportunities for students to engage with their community

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<sup>51</sup> See *Standards for Digital Learning Content in British Columbia* for clear guidelines [http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/digital\\_learning\\_standards.pdf](http://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/distributed-learning/digital_learning_standards.pdf)



### Service Delivery/Facilitation

- Be explicit with students from the start about the challenges inherent to online preservice education so students can make choice about whether online learning is the right choice for them
- Provide clear expectations, and model ‘netiquette’
- Use pre-surveys and self-evaluation tools to assess student prior knowledge, learning styles, when they will be completing coursework, what kinds of technology access, and subsequent needs for support – *“its not very helpful to have a support system in place that is only available from 9 a.m. – 5 p.m. Monday-Friday if most of your learners will be participating before work in the morning, later in the evenings, and over the weekend”* (Dolan et al., 2009, p. 91)
- Use post-course surveys for gathering feedback on how to change or improve delivery and support for future students
- Offer various means and mediums of support (email, phone, ‘how to’ materials) with high levels of interaction, one-to-one mentoring and personalized assignment feedback
- Take substantial responsibility for fostering a collaborative, learner-centred environment, intentionally building in a method of cohort building – instructor cannot assume the group will bond/build positive relationships, so relationships must be developed with purpose
- Use discussions to develop a strong student learning community with identity and culture at the centre, making sure from the beginning that students are willing and prepared to engage – set and clearly communicate expectations
- Make help resources varied, well advertised, and easy to access –links on every LMS page screen to Information Technology helpdesk
- Scaffold students’ technology skills through learning activities – provide and encourage (and/or require) access to the LMS and any other technologies before course begins, - giving students time to explore and experiment, and play, thus reducing the learning curve before the added cognitive load of coursework is added



- Leave discussion boards open after courses end, so graduates can continue to cultivate professional community and use 21<sup>st</sup> century tools (ex: Facebook, Twitter) to encourage meaningful learning communities for graduates
- Choose open-access resources whenever possible
- Introduce web resources students can access for professional learning after graduation (ex: *Science of Early Childhood Development*, *Early Childhood Pedagogies Collaboratory*<sup>52</sup>, etc.)
- Use a combination of synchronous and asynchronous communication and multiple channels for each (student/student, student/instructor, students/instructor, etc.), being sure to communicate expectations to students from the outset (preferably *before* enrolment)

#### **Synchronous:**

- Host any synchronous sessions when most students are available – in early childhood education, this tends to be in the evenings after work (consult with registered students at beginning of term)
- Utilize synchronous functions of LMS so students have one less platform to learn
- Choose synchronous videoing technology that allows for recording so it can be used later (asynchronously) for reflection, analysis, discussion
- Moderate synchronous conversations

#### **Asynchronous:**

- Share high fidelity asynchronous video
- Actively moderate asynchronous discussion boards to encourage supportive student interactions and create a shared construction of knowledge with clear policies/rules for discussion (for example: Making asynchronous discussion posts mandatory, with criteria for levels of engagement)

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<sup>52</sup> <https://www.earlychildhoodcollaboratory.net>



## Practicum Considerations

- Reimagine practicum within larger ‘collective ethics’
- Get license/access to the eCriminal Record check program to reduce student barriers
- Use a constructivist loop of instruction: read, implement, reflect, receive feedback
- Require student (asynchronous) video recording in the practicum setting as a tool for student self-reflection– *one study found that quality & quantity of reflection in this way was better than compared to face-to-face; difference attributed to “[preservice educators] ‘owning’ their video whereas traditionally, supervisors ‘own’ their observation notes”* (Gronn et al., 2013, p. 252).
- Experiment with using the asynchronous student video recordings as a tool for collective reflection with small groups of students/instructor
- Experiment with synchronous two-way videoconferencing (Skype, FaceTime, etc.) of the student at the practicum site when technology allows for this option
- Find times and modes of discussion including all 3 members of triad (student, instructor, mentor – *webinar-style meetings such as Skype, Blackboard Collaborate, FaceTime*)
- Use creative modes of student critical reflection and documentation of learning (ex: journaling) – Twitter was identified as one tool for students to focus their thinking/respect purposefully on experiences and reduce feelings of isolation
- Support communities of practice at practicum sites by grouping students together at sites when possible, and in cohorts for seminars
- Form strong partnerships and collaboration with practicum placement sites with clear definitions, articulations, and enactment of respective roles between institution and practicum site
- Provide thorough placement preparation (visiting sites with students, guiding through the culture of organization and policies, etc.)
- Assess/screen mentor educators for cultural suitability and safety for Indigenous students
- Create a network of placement sites/mentor educators based on positive outcomes with preservice educators



- Formalized partnerships with Indigenous communities to provide students with ‘cultural mentors’
- Support mentor educators via professional learning/training
- Provide selections of online ECE resources for students and mentors to access
- Consider possibilities for hiring a field observer to visit students face-to-face
- Have a clear technology help process in place through the institution
- Develop ethical guidelines that specifically address the use of technology in practicum supervision (*ex: informing students, mentors (children, families) about additional risks to confidentiality, ensuring the storage/sharing of documents are in coherence with relevant legislation, use of secure/encrypted delivery methods*).

### Considerations for MCFD

1. Reduce complexity in governance – integrate early care and early learning
2. Conceptualize online learning for ECE students as one facet of the larger theme of early childhood preservice education
  - a. Recognize and respond to the current tensions in the field about questions of purpose and definitions of quality
  - b. Continue the work that began with the ECE Entry-to-Practice Project to articulate learning outcomes in the areas of knowledge, skills, and dispositions or reflective competencies for program graduates
    - i. Prioritize a *Guiding Document for Institutions*. In the meantime, utilize the *BC Early Learning Framework* as an additional guiding document in the institutional curriculum approval/recognition process

Consult with instructors and other stakeholders in the field about the following purpose-related questions:

#### **What exactly is it that educators are being prepared for?**

- What is our BC ECE ‘ethos for the times’?
- What is our collective vision for educators, children, families, and communities?
- How are preservice educators assessed to be ‘competent’ for entry to practice?



**Why are courses or programs being delivered in an online modality?**

- Recruitment, flexibility/accessibility, and/or cost savings?
  - Is it a choice positioned second to face-to-face delivery?
  - Or, is it an intentional first choice to support innovative 21<sup>st</sup> century knowledges, skills, pedagogies and digital literacies?
3. Omit the word ‘training’ from the title of ‘Recognized *Training* Institution’
    - a. Rename as ‘*Recognized Institutions*’ to mark the complexity of what preservice education in the field entails (education/curriculum *not* as something pre-packaged and can thus be delivered through training, but instead an ongoing emergent process co-constructed by instructor and students)
  4. Make the curriculum approval process for becoming a Registered Institution transparent and publicly accessible (available on website)
  5. Make the curriculum approval process in particular for the ‘Aboriginal Perspective’ designation transparent and publically accessible. Additionally,
    - a. Consult with stakeholders about this language and designation (BC Aboriginal Child Care Society (2012) found that many Indigenous students rated these programs as ‘poor’ in many areas they were advertised as providing. Additionally, many programs that are not formally ‘recognized’ holistically incorporate Indigenous worldviews – a responsibility of responding to calls to Action of the Truth and Reconciliation Commission).
  6. Respond to TRC calls to action: “*in consultation and collaboration with Survivors, Aboriginal peoples, and educators, to...[p]rovide the necessary funding to post-secondary institutions to educate teachers on how to integrate Indigenous knowledge and teaching methods into classrooms (p. 7)*. This is urgent – a lack of culturally relevant curriculum was identified as a barrier to Indigenous student learning in BC, even in ‘Aboriginal Perspective’ Programs.
  7. Respond to the *BC First Nations Early Childhood Development Framework’s* assertion that provincial organizations have the responsibility to explore and identify the pros and cons of preservice ECE delivery options, support research partnerships with post-secondary institutions, and collaborate with communities to develop recruitment and retention plans. The BC Aboriginal Child Care Society’s (2012) study of distance learners shows strong preference for face-to-face learning for



Indigenous students – online education is thus not *the* solution for recruitment challenges. Thus, MCFD should consult with stakeholders to meaningfully consider:

- a. Supporting local innovations
  - b. How hybrid/blended program models fit into the landscape of BC, particularly models in which the face-to-face portion is facilitated in students' communities vs. students travelling to the institution
8. List schools offering one or more online course (along with course titles offered) on Recognized Institution website under a new heading (ex: *Online Courses*)
  9. Consult with stakeholders about adding professional development opportunities for practicum mentor educators to the BC professional development portal
  10. Fund opportunities for and deeply critically reflective professional learning opportunities for **online and face-to-face** instructors that encourage exploring congruency between early years and higher education pedagogies (supporting instructors to “walk the walk” or “practice what they preach” in ECE with adult learners)
  11. Fund additional meaningful professional development opportunities for online instructors to keep up with cutting-edge knowledge in the online/distance education field. Examples include:
    - Annual 5 day institute of hands-on critical digital pedagogy work, co-hosted by the associated Critical Digital Pedagogy Journal *Hybrid Pedagogy*<sup>53</sup> (alternatively, travelling institute could come to BC)
    - International Council for Open and Distance Education World Conference<sup>54</sup>
  12. Support “intentional collaborative opportunities for instructors and make provisions for sharing practice and making learning visible” (Brown et al., 2015, p. 75). To do so, MCFD can:
    - a. Make this literature review open-source/publicly accessible to ECE instructors
    - b. Support the creation of a Distance Instructors' Network (perhaps in the form of a user-generated blog) to share innovations

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<sup>53</sup> <http://www.digitalpedagogylab.com/hybridped/>

<sup>54</sup> <http://onlinelearning2017.ca/wp-content/uploads/2016/09/WORLD-CONFERENCE-ON-ONLINE-LEARNING-PROGRAM-AND-TRACKS-EN-FINAL.pdf>



- Consult with online instructors
  - c. Fund opportunities for Scholarship of Teaching and Learning research for online ECE instructors to contribute innovations to the growing body of research. *Encourage in particular proposals that:*
    - Put pedagogy before technology
    - Position students as co-researchers or co-inquirers
    - Incorporate a reconceptualization process through self/collaborative study (see, for example Section 10.1.2)
    - Seek to foster higher education/early years pedagogical congruency
    - Address identified gaps in research in the preservice education field
    - Follow Felten's (2013) five principles of good practice (inquiry focused on student learning, grounded in context, methodologically sound research methods, partnership/co-inquiry with students, making results appropriately public (See Section 8.1.1))
13. Finally, MCFD can consult with stakeholders in the creation and utilization of a reflective framework<sup>55</sup> for the institutional recognition process for schools offering distance programs and/or one or more online courses, using this report as a guiding document for the process
- a. See *Appendixes C & H* for examples of potential supporting evidence of putting pedagogy before technology and examples of good practice from the provincial K-12 distance learning standards. Recommendations for institutions/department, instructors, and practicum (listed above) may also be used as supporting evidence.
  - b. This consultation process would be well-placed in tandem with the ongoing ECE entry-to-practice project, as online learning outcomes or competencies (and therefore the activities/technologies that will support their achievement) cannot be separated from the larger discussion of ECE program graduate competencies.

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<sup>55</sup> *Inspiration/Example of reflective questions attached as Appendix J*



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## Appendix A: Pedagogy before Technology: A “Conceptual Reimagining of [e]Learning Space” for Course Designers/Instructors

In response to literature (*such as this project*) that “considers established scholarly, theoretical and conceptual foundations” in calls “for a productive and improved articulation between technology and pedagogy in higher education” Jones and Bennett (2017) aim to “open a new trajectory for empirical testing in the elearning space” through a “conceptual speculative inquiry” (p. 194). In their inquiry, Jones and Bennett suggest the three metaphors of *rhizome, ecososytem, and habitat* “enable us to suggest a redrawing of learning spaces that emphasises pedagogy, not technology” (p. 196), and is an approach to course design that is intended to “encourage and advocate for greater creativity and experimentation with technology in university course design” (p. 206). Jones and Bennett’s (2017) theorizing about these metaphors is summarized below, under the same headings used in the article:

### Invoking the Rhizome

Thinking with Deleuze and Guattari, Jones and Bennett (2017) describe rhizomatic thinking as “[m]odelled on a biological root system, where stems, roots and shoots connect to one another in multiple and unpredictable ways,” thus “resisting dualistic, chronological and linear thought progressions” (p. 199). They suggest that for instructors, “*the rhizome offers a visual analogy for the space of course conception: a space of interconnected possibility*” (p. 199, emphasis added). In this way, “rhizomatic points might be imagined as moments when all possible delivery, reception and engagement options intersect at a single learning objective” and “each learning moment is connected to other learning moments via multiple, intersecting pathways” (p. 199).

### The Course as Ecosystem

Jones and Bennett (2017) argue that “[c]onceptualising course design as emerging from rhizomatic space takes the initial emphasis away from how to easily and cost-effectively *deliver* a learning object to all students and places it on considering the best ways to encourage students to *engage* with the learning objective” (p. 199) Thus, course design from this perspective “appears less like a linear plan that clearly matches outcomes with a fixed set of content, activities and assessments, and more like a complex ecosystem<sup>56</sup>” (p. 200). Jones and Bennett suggest that an ecosystem model of course design thus prioritizes intersecting learning moments, rather than the Learning Management System interface, as being significant to the foundational structure. According to Jones and Bennett (2017), Online delivery is thus viewed as a “pathway[s] to enter and exit key learning moments” with a “flexible array of options for encouraging the development of clearly stated learning outcomes – with “available teaching techniques, spaces and tools to be considered only in their capacity to foster student engagement in the learning objectives of the course” (p. 200).

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<sup>56</sup>Jones and Bennett (2017) use the Oxford Reference (2015) definition of ecosystem ‘*an assemblage of interacting populations of species grouped into communities in a local environment*’ (as cited in Jones & Bennett, 2017, p. 200)



### Designing Learning Habitats

Jones and Bennett (2017) suggest that the next phase of course design is to “ensure the survival of the various species (students) it houses, through the creation of rich and fertile learning habitats” (p. 200). Theorizing with the courses as ecosystems analogy that “reframes courses as ecosystems that contain various habitats for learning,” (p. 201), Jones and Bennett (2017) argue that digital technologies are thus *options* versus the defining factor in the creation of the learning habitat, allowing “all attributes of a learning space to be considered equally – human, material and digital” (p. 201). In this conceptualization of course design, Jones and Bennett (2017) suggest that the instructors’ role is one of *steward*, - to “create habitats that are likely to be the clearest for their species’ needs” (p. 201). Jones and Bennett suggest that this might involve “steering [online] students away from static university web interfaces and towards engaging and evolving social media sites” (p. 201).

Jones and Bennett (2017) conclude by suggesting that the *use of ecological, as opposed to technological, metaphors in course design is intended to re-empower university teachers to trust their experience, activate their creativity and make pedagogically driven decisions to effectively engage students in communities of practice that aim to meet their varied needs, without succumbing to the rhetoric which supports technological determinism in higher education* (p. 207)

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## Appendix B: Practicing What We Preach: A Continued Discussion of Pedagogical Congruency for ECE Instructors

*How do early childhood instructors practice what they preach when they teach what they teach?* This Appendix summarizes online pedagogical approaches arising in the literature that embody knowing, doing, and being in the context of preservice early childhood education.

Pedagogical approaches in online teacher education that arose most frequently and across international jurisdictions are: **supporting meaningful learning through constructivist learning approaches**<sup>57</sup> (see Haverila, Myllylä, & Torp, 2009; Sauv , 2008) **or, more specifically, a social constructivist framework** (Bryant & Bates, 2015; Hamaidi, Kaye, & Cahill, 2016; Green et al., 2013). Certainly, as Souto-Manning (2017) suggests, because “[t]eaching and learning are sociocultural, historical, and political acts.. they should be grounded in themes important to and generating from the everyday lived realities of learners” (p. 79). Further, Bates (2008) suggests that it is not a co-incidence that the introduction of online learning aligns with the height of the popularity of constructivism, as the asynchronous nature of online learning and teaching encourages reflection and enables students to have control over the pace and timing of their learning.

Krutka et al. (2014) describe the struggle as instructor-researchers in determining the level of discretion in how emergent the content and flow of conversation would be, and the space of not-knowing and experimentation they were left with:

*We did not want to fix what subjects students could discuss because we did not intend the digital space to be formalized in ways that might smother authentic exchanges. However, we also wanted to push students’ understandings and application of subject matter from the literacy course. It is unlikely that there is any simple strategy or recommendation we can offer as this is the type of ambiguous decision that teachers must make with regards to their own unique situations* (p. 91).

As co-construction of knowledge is a vital aspect of social constructivism, it is perhaps no surprise that the pedagogical strategy that arose time and time again throughout the literature - regardless of geographical or subject area – was **the essential nature of constructing online communities of inquiry and/or communities of practice** (see Cutcher & Cook, 2016; Davis, Lennox, Walker, & Walsh, 2007; Donohue & Fox, 2012; Downing & Herrington, 2013; Hamaidi, Kaye, & Cahill, 2016; Thompson et al., 2013; Tomas et al., 2015).

While there multiple ways of creating and sustaining professional learning communities, Concei o (2011) describes how an evaluation of the online ECE degree program at the Erkison Institute found that

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<sup>57</sup> Heirdsfield et al. (2011) define constructivism as the “co-construction of knowledge that develops from student-student-instructor interactions” (p. 2)



*building and sustaining a professional learning community online requires intentional design; common interests, goals, and practices; interactions supported and mediated by enabling technologies; and, most importantly, individuals who have the motivation to be committed, dedicated, and engaged in the sharing of information and social support to create a sense of community”* (p. 23, emphasis added).

In theorizing how to steward technology for communities of practice for digital habitats, Wenger, White, and Smith (2009) suggest that

*Technology has changed how we think about communities, and communities have changed our uses of technology. These evolving digital habitats give us the chance to reconsider what we know about communities and to rediscover fundamental ideas in new settings* (p. 21).

*...learning together forms a valuable perspective on the communal aspects of technology. It is more demanding of technology than keeping a list of friends or exchanging messages: it implies that technology will help us find learning partners and engage with them meaningfully* (p. 4).

Wenger, White, and Smith (2009) suggest that “communities of practice need habitats to learn together,” (p. 38) and that the configuration of technologies<sup>58</sup> is experienced as the ‘place’ for community in an online environment. As such, Wenger, White, and Smith (2009) suggest exploring the question, “**what is the range of activities a [learning] community engages in? Which of these activities need to be well-supported by tools?**” (p. 40). This is again fitting with the approach of putting pedagogy ahead of technology. Following Edwards, (2012), it is important to think “beyond the application of technology to existing educational practices, to seeing how it may be related to key aspects of pedagogy (such as assessment) to support learning which *results in a change in the learner rather than the acquisition of theoretical content*” (p. 596).

Another pedagogical approach that arose, and is fitting with a change in learner rather than acquisition is that of critical pedagogy, which, stemming from Paulo Friere, “positions human beings as agents of change who refuse to accept things as they are” and is “premised on the assumption that human beings are capable of reading the worlds in which they live, naming injustices, and agentively promoting transformation” (Souto-Manning, 2017, p. 83). Souto-Manning (2017) suggests that through critical pedagogy, instructors “transform their classrooms into spaces where students can engage in critical dialogue, learn from each other, and take action around issues of power, privilege, and social justice” (p. 83). It follows that critical digital pedagogy would also be a congruent

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<sup>58</sup> Wenger, White, and Smith (2009) note the importance of considering “the full **configuration** of technology that sustains the [digital] habitat,” as it is “rarely confined to one platform” (p. 38) – could be teleconferencing, the learning management system, wikis, emails, Skype, etc.



fit – see for example, the *Digital Pedagogy Lab*,<sup>59</sup> and associated Critical Digital Pedagogy Journal *Hybrid Pedagogy*<sup>60</sup>.

Donohue, Fox, and Torrence (2007) suggest that in addition to knowing who your learners are and forming strong relationships, it is important to “add a critical understanding of adult learning principles” (p. 36). Downing and Herrington’s (2013) six design principles associated with the intersection theories of adult learning and professional teacher education suggest that instructors:

- *“Provide authentic contexts and applied learning activities that connect theory and practice*
- *Recognise and incorporate the lived experiences of students*
- *Provide opportunities for meaningful, collaborative construction of knowledge within the learning community*
- *Encourage the development of a reflective, professional identity through collegial interactions in a variety of settings*
- *Provide authentic assessment tasks that reflect the way the knowledge will be used in real work settings*
- *Encourage student ownership of learning and increasing professional autonomy”* (p. 241)

Similarly, the four principles of Pittaway’s (2012) *Engagement Framework*, suggests:

- 1) *“To engage students, [course designers/instructors] must also be engaged”*
- 2) *“The development of respectful and supportive relationships is paramount for learning and teaching”*
- 3) *“Students are given – and take – responsibility for their learning*
- 4) *“Students develop knowledge, understandings, skills and capacities when their learning is scaffolded, high standards are set, and expectations are clearly communicated”* (p. 40)

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<sup>59</sup> <http://www.digitalpedagogy.com>

<sup>60</sup> <http://www.digitalpedagogy.com/hybridped/>



### Appendix C: Congruent Pedagogical Approaches: Inspiration for Course Designers/Instructors and Potential Supporting Evidence for MCFD

*Pedagogical approaches and orientations congruent with both higher education and early years research that arose in the literature for the planning and delivery of online ECE are summarized here. It is important to make clear that these are suggestions that stem from how some instructors have found congruency in their own work – not exhaustive or exclusive of other pedagogical approaches. Congruency will look different for every online instructor with their own ECE praxis.*

#### Planning:

- **Making explicit your feelings of fear and other concerns about online learning, and identifying ways to address them** (Downing, Dymont, & Budd, 2013)
- **Devoting significant time and resources for developing strong technical and pedagogical skills** (Downing, Dymont, & Budd, 2013, p. 145)
- **Being aware of your own pedagogical beliefs and the potential incongruences/congruencies in an online environment** (du Plessis & Naughton, 2008), **engaging in self-study to deeply and meaningfully explore** (Green et al., 2010; 2013)
- **Sharing your pedagogy and rationale for pedagogical approaches with students and making visible your thinking and learning** (Green et al., 2010; 2013; Souto-Manning, 2012)
- **Documenting innovative pedagogies** (UNESCO & ARNEC, 2016) - **keeping a teaching journal for documentation and reflection** (Cheruvu, 2014)
- **Viewing yourself as an educator/instructor-as-researcher engaging in action research** (Souto-Manning, 2012), **making active contribution to the Scholarship of Teaching and Learning in the online environment** (Downing, Dymont, & Budd, 2013)
- **Extending pedagogical inquiries from self-study to collaborative inquiry/action research with teaching colleagues** (Brown et al., 2015; Selkrig & Keamy, 2015).



- **“Recognis[ing] that the rewards of teaching online may look and feel different to the face-to-face equivalent, but exist none-the-less.”** (Downing, Dymont, & Budd, 2013, p. 14).

Delivery:

- **Building strong relationships with safety and trust** (Davis Aspro et al., 2009)
- **Cultivating a collaborative community of practice/professional learning community** (du Plessis & Naughton, 2008) **or community of inquiry** (Thompson et al., 2015) **that positions students as knowledge creators** (Tomas et al., 2015)
- **Supporting students to engage in deep critical reflection that troubles/examines ECEs’ preconceived notions about ECE, themselves, and others** (Souto-Manning, 2017).
  - **Viewing preservice education as being a vital space in cultivating lifelong educator identities such reflective dispositions** (Taylor, 2009)
  - **Utilizing approaches such as scenario learning, microteaching, case studies, inquiry learning, problem-based learning** (Goodnough, Bullock, & Power, 2015)
- **Teaching through assessment<sup>61</sup> as a way to embody and model integration of theory and practice** (Edwards, 2012)
- **Incorporating creative and interactive digital tools like social networking, online games** (Jones & Bennett, 2017), **Wikis** (Goldstein & Peled, 2016) **simulations, virtual worlds** (Eng, 2016) **for experiential learning<sup>62</sup> online**
- **Providing opportunities for sharing of learning artifacts and subsequent peer formative feedback to promote dialogue and stimulate active engagement in support for online peers** (Gikandi & Morrow, 2016)
- **Utilizing open access resources** (Strommel, 2014); **one day will not have access to the LMS and materials used in class, so great to be able to build e-toolbox**
- **Exploring possibilities of:**

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<sup>61</sup> merging the assessed task with the technology/allowing the technology to take on a difference form and function depending on the learning activity (Edwards, 2012)

“an educational pedagogy that engages learners in concrete experiences, personal reflections, abstract conceptualizations, and active experimentation” (Eng, 2016, p. 20)



- **Reflective blogging** (Dalgarno, Reupert, & Bishop, 2015) – **students can assess own competencies thus promoting self regulation of learning** (Ion, Cano, & Cabrera, 2016), **and knowing that others will read posts may lead to more thorough engagement and reflection** (Dalgarno, Reupert, & Bishop, 2015)
- **International networking – through videoconferencing** (Clark, Brown, & Jandildinov, 2016), **or making videos to share with partner classes** (Neimi & Multisilta, 2016)
- **Reflective e-portfolios** (in contrast with showcase e-portfolios) **as a tool for authentic assessment** (Savage, 2016), **embedding and making visible 21<sup>st</sup> century skills while engaging in synthesis, ethical reasoning, lifelong learning, creative thinking, critical analysis, collaboration** (Goodnough, Bullock, and Power, 2015; Hager, 2013) **and deep critical reflection** (Savage, 2016; Urban et al., 2011) – **also gives students organization of materials/resource library for after graduation** (Conceição, 2011)



## Appendix D: Online Teaching and Learning Credential Possibilities (Canadian Institutions)

### Certificates

Certificate in Adult Learning Specializing in e-Learning, *University of Calgary Continuing Education*

<https://conted.ucalgary.ca/public/category/courseCategoryCertificateProfile.do?method=load&certificateId=13147051>

Certificate in Online/eLearning Instruction, *Vancouver Community College*

<http://www.vcc.ca/programscourses/program-areas/instructor-and-teacher-training/certificate-in-onlineelearning-instruction/>

Certificate in Teaching and Designing and Online Course, *Canadian College of Educators*

<http://canadiancollegeofeducators.ca/certificate-in-teaching-and-designing-an-online-course/>

e-Learning Certificate, *University of Calgary Continuing Education*

<https://conted.ucalgary.ca/public/category/courseCategoryCertificateProfile.do?method=load&certificateId=3049775>

e-Learning Certificate, *University of Toronto Continuing Studies*

<http://learn.utoronto.ca/courses-programs/business-professionals/certificates/e-learning>

Graduate Certificate in Online Teaching and Learning, *Thompson Rivers University*

<http://www.tru.ca/distance/programs/education/graduate-certificate-online-teaching.html>

[Master of Educational Technology Graduate Certificate in Technology-Based Distributed Learning, \*University of British Columbia\*](http://met.ubc.ca/program-overview/certificate-options/)

<http://met.ubc.ca/program-overview/certificate-options/>

Post-Baccalaureate Certificate in Instructional Design, *Athabasca University Centre for Distance Education*

[http://calendar.athabascau.ca/grad/current/distance\\_04.php](http://calendar.athabascau.ca/grad/current/distance_04.php)

Post-Baccalaureate Certificate in Technology-Based Learning, *Athabasca University Centre for Distance Education*

[http://calendar.athabascau.ca/grad/current/distance\\_07.php](http://calendar.athabascau.ca/grad/current/distance_07.php)

### Diplomas

Graduate Diploma in Learning and Technology, *Royal Roads University*

<http://www.royalroads.ca/prospective-students/graduate-diploma-learning-and-technology>



Online Learning and Teaching Graduate Diploma, Vancouver Island University Centre for Distance Education

<https://www2.viu.ca/education/programs/diploma/oltd/>

Post-Baccalaureate Diploma in Distance Education Technology, Athabasca University Centre for Distance Education

[http://calendar.athabascau.ca/grad/current/distance\\_02.php](http://calendar.athabascau.ca/grad/current/distance_02.php)

Post-Baccalaureate Diploma in Instructional Design, Athabasca University Centre for Distance Education

[http://calendar.athabascau.ca/grad/current/distance\\_05.php](http://calendar.athabascau.ca/grad/current/distance_05.php)

## Masters

Master of Arts in Learning and Technology, Royal Roads University

<http://www.royalroads.ca/prospective-students/master-arts-learning-and-technology>

Master of Education in Distance Education, Athabasca University Centre for Distance Education

[http://calendar.athabascau.ca/grad/current/distance\\_03.php](http://calendar.athabascau.ca/grad/current/distance_03.php)

Master of Educational Technology, Faculty of Education, University of British Columbia

<http://met.ubc.ca/program-overview/>

## Doctorate

Doctor of Education in Distance Education, Athabasca University Centre for Distance Education

[http://calendar.athabascau.ca/grad/current/distance\\_06.php](http://calendar.athabascau.ca/grad/current/distance_06.php)

## Appendix E: Interactive Scenario-Based Learning Online (via Blackboard)

Sheridan and Kelly (2012) describe how the integration of scenario-based instruction was a major goal of online course redesign in an early childhood education program at a large university in the U.S. Midwest. Scenario-based learning was defined as being within the framework of case-based instruction, wherein learners must solve one or more problems presented in an **authentic** event/situation – “introduc[ing] students to the types of multifaceted issues that they would likely encounter as early childhood professionals” (p. 75). Building off work of Herrington, Oliver, and Reeves (2003), Sheridan and Kelly (2012) defined authenticity as having: 10 characteristics: *“real world relevance; ill-defined problems and activities; complex tasks that are sustained over time; examinations of tasks from multiple perspectives using multiple resources; opportunities to collaborate; opportunities to reflect; activities integrated and applied across subjects and content areas; assessment seamlessly integrated with activities; development of a product; and activities allowing for diverse and multiple solutions and outcomes”* (p. 74).

The core requirement course *Child, Family, and Community* was chosen to integrate scenario-based learning integration, as the topics were ideal in that they “span a variety of content domains and readily lend themselves to multiple paths of investigation as well as multiple answers and solutions to dilemmas” (p. 76), and was delivered via Blackboard. The course interface in Blackboard was restructured around an interactive virtual community (see image below), wherein students could click buildings to ‘enter’ them and access scenarios and corresponding information. The chart on the following page describes the corresponding material each structure was associated with.



Figure 2. Excerpt of graphic on the course homepage in Blackboard (color figure available online).  
(p. 77)

Structure	Function (Link to)
Apartment	Learning module on the ecology of parenting
Child care center	Learning module on the ecology of child care
City hall	Learning module on community ecology
City park	Learning module on the ecology of the peer group
Coffee shop	Discussions
Community events sign	Course schedule
Elementary school	Learning module on the ecology of school and teaching
Fire department	Course discussions
Fountain within rotary	Overview for the weekly lesson
House	Learning module on the ecology of the family
Meditation center	Page of inspirational passages and thought-provoking quotations
Newspaper box	Internet news site pertaining to early childhood education
Police station	Grade book (showing the student's grades only)
Post office	Blackboard e-mail
Public library	Course resources
Savings bank	Self-graded assignments
Shopping mall	Learning module on the ecology of mass media
Welcome center	Course syllabus

(p. 84)

Instructors reported “a noticeable difference...in depth and breadth of [students’] work” when comparing scenario-based course students to those taking the traditional course, noting that the “students that participated in the scenario-based courses delivered projects and papers that were more complex, broader in scope, and indicated a more solid foundation in the course learning objectives” (p. 82).

It is important to note that course developers initially considered platforms such as Second Life<sup>63</sup> - a virtual 3D world – but ultimately decided against this option noting that

*“[w]hile platforms such as Second Life could have enhanced the visual effects of the community, we opted to use a low-technology approach that did not require the installation of additional software and could be easily integrated into the university’s existing course management system. We also sought to make the course highly accessible to a wide range of students and instructors who had varying comfort levels with virtual environments”* (p. 83).

Further, students who preferred using a textual interface course access all course information and modules “via a linear list of text links on the course menu in Blackboard” (p. 77).

Work Cited:

Sheridan, K. M., & Kelly, M. A. (2012). Teaching early childhood education students through interactive scenario-based course design. *Journal of Early Childhood Teacher Education*, 33(1), 73-84.

<sup>63</sup> <http://secondlife.com>



## Appendix F: Summary of Themes from 2017 Doctoral Dissertation: Case Study of U.S. Institutions Facilitating Practicum Online

In a move to fill the gap in research on how distance practicum is facilitated in the field of early childhood education, Meier's (2017) doctoral dissertation examined the experiences, processes, and procedures of instructors who facilitate at least one online practicum seminar and supervision in preservice early childhood education programs at a college or university in the United States. The first research question about facilitation of online field experiences resulted in 6 major themes: *online components*, *observation / performance assessment*, *parity*, *roadblocks*, *innovations*, and *live versus online field experience*. All instructors described intentional inclusion of constructivist practices in their facilitation, resulting in 4 additional major themes: *communication*, *mentoring*, *collaboration*, and *reflection*. These themes – a summary of what is currently going on in terms of practicum delivery at this particular university – are summarized below:

### Online Components

- Setting up modules online (to replace forms/materials distributed to those in face-to-face practicum seminars), weekly discussions
- No quality control on what happens in the practicum setting, so setting up a formalized procedure to replace live communication between instructor, student, mentor educator (email, telephone, Skype, video, having mentors sign off on student journal entries, etc.).

### Observation/Performance Assessment

- Course assignments with feedback from instructor (journals, lesson plans, reflections)
- Performance assessment from mentor educator, using rubric associated with ECE standards
- Student self-assessments (journals, self-assessment rubrics, discussion forums, videoing)
- Creating a traditional triad model when possible (visiting practicum site face-to-face). When not possible:
  - Having students submit videos when not able to visit face-to-face, in depth feedback from instructor (with time prompts to direct students to specific interactions). Submitted via cloud platforms, private YouTube channels, Google Drive, texting between cell phones, paid subscription services for data sharing, college-wide cloud based storage
  - Hiring a field observer to visit student face-to-face
  - Skype for real-time observations

### Parity (of face-to-face and online practicum experiences)

- Believed to be achieved in all who used virtual or face-to-face site visits and performance assessment

### Roadblocks



- Relational aspect between instructor and pre-service educator
- Facilitating observation, performance assessment, supervision
- Arranging practicum site approval/finding quality sites from a distance (some used an approved list)
- Concerns about relying on 3<sup>rd</sup> party reports about progress (when videos not collected)
- Not knowing the skill level of mentor educators
- Concerns about cheating/not completing work themselves
- Concerns about privacy with video-sharing
- Some ECE classrooms do not allow videotaping for children
- Technical difficulties, compliance with federal standards with accessibility of electronic/information technology for people with disabilities, copyright permissions
- Budget constraints for in-person visits

### **Innovations**

- Videotaping
- Cohort model
- Training, socialization, lab support for mentor educators
- Selections of online ECE resources
- Social media pages for ECE cohorts
- Technology help processes through the institutions
- Capstone final project/interview to deter cheating
- Creation of network of placement sites/mentor educators based on positive outcomes with preservice educators
- Weekly discussion forum where all 3 members of triad communicate
- Mentor appreciation nights to create relationships
- Constructivist loop of instruction: read, implement, reflect, receive feedback
- Allowing for revisions on graded work for individualized scaffolding

### **Live versus online**

- All described a preference for live facilitation, but the importance of offering online for greater accessibility

### **Communication**

- Orientation at beginning of term where all 3 members of triad present when possible
- Not always feasible for all 3 members of triad to debrief after observation (if in person)
- Including all members of triad in email communication
- Two-way communication between instructor/mentor, instructor/student (email, phone, Skype)
- Creating trusting, reciprocal relationship between instructor/student (giving cell number, texting, social media messaging)
- Video-based tutorials (Camtasia, Panopto, Collaborate)



- Webinar-style meetings (Skype, Blackboard Collaborate, Facetime, Zoom, Go-To-Meeting)

### **Mentoring**

- Majority happening between mentor educator and preservice educator
  - Some gave specific/valuable feedback, others was minimal/vague
- Occurring between instructors/preservice educators through discussion forums, assignment feedback, etc.
- 1 participant offered training for mentor educators (from practicum instructors)
- Peer mentoring – preservice educators giving each other feedback on videos/through discussion forum

### **Collaboration**

- Rare between practicum instructors and mentor educators (unless doing live visits)
- Constant between preservice educator and mentor educator
- Weekly discussion forum for preservice educators
- Wiki log assignments
- Office 365 for cloud sharing while working on group assignments

### **Reflection**

- Seen as key by all participants
- Methods used included reflective journaling, reflecting after watching videotapes, reflecting on performance assessments, reflection after self-assessment

#### **Work Cited:**

Meier, C. R. (2017). *Online Facilitation of Early Childhood Education Preservice Teacher Field Experiences* (Doctoral dissertation, Walden University).



## Appendix G: Associate Teacher (Mentor Educator) Online Learning Tool

Petrarca (2013) describes *associate teachers* in the Ontario K-12 education system as “the classroom teachers who host, supervise, and mentor teacher candidates during practicum placements” (p. 149) – similar to *mentor educators* in the early childhood field. In response to the issue of “a lack of support, collaboration, and training to assist the associate teacher in this influential role” (p. 150), Petrarca (2013) piloted and explored the use of a web-based learning tool for associate teachers who supervise students from the Faculty of Education at the University of Ontario Institute of Technology (UOIT). The *Associate Teacher Learning Tool* (ATLT) is “grounded in a theoretical framework of reflective practice and constructivist learning,” thus “honor[ing] and consider[ing] associate teachers’ pre-existing personal models of the role of the associate teacher, the teacher candidate, and field experiences in general as critical components in the construction of knowledge (p. 153). As such, the ATLT was designed to “challenge and encourage associate teachers to examine and reflect on their own beliefs and practices...to engage them in relevant problem solving situations, and to enhance and/or promote the construction of representations or schemas of the [associate teacher] role and related responsibilities” (p. 154). The ATLT piloted in Petrarca’s (2013) project was accessed via a password-protected webpage with 49 Flash-based pages centred around 5 key themes that emerged from the literature in the background study:

1. The role of the associate teacher
2. Getting prepared
3. Planning
4. Feedback
5. Praxis

A variety of presentation formats for learning activities were used, including: graphics, video clips, text-based documentation, interactive activities such as drag-and-drop, and reflective activities (see example images below from Petrarca, 2013, p. 155):

The screenshot displays the 'Associate Teacher Learning Tool' interface. At the top, there are navigation tabs: 'The AT Role', 'Getting Prepared', 'Praxis', 'Planning', and 'Feedback'. The main content area is divided into two sections. On the left, an 'Instructions' panel lists four steps: 1. Click the play button... to begin revealing examples that describe one of the four themes. You may pause the process at anytime by clicking the pause button. 2. After each example, consider what theme the examples are describing. 3. Click in the textbox at the bottom of the screen and type in your guess. 4. Click the Submit button to reveal the theme. On the right, the 'Guess the Theme' activity is shown. It includes a title 'Guess the Theme' with the instruction 'Press play to begin the activity.' Below this is a 'Theme' section: 'Familiarize yourself with the AT role'. A table lists characteristics of the AT role: 'A critical player in the education of the TC', 'Provides models of good teaching', 'Promotes gradual teaching opportunities for the TC', and 'Gives ongoing feedback'. To the right of this table are three statements: 'The AT can relax now that the TC is in control', 'The AT should provide feedback only if the TC is struggling', and 'The TC should just jump right in and teach'. Below the table is a 'Your guess:' input field and a 'Submit' button. At the bottom of the interface, there is a '6 of 8' indicator.

Figure 2: Example of procedural video



**Figure 3: Example of reflective text input**

One important aspect of the 2013 study was that the database software *MySQL* was used to track user information such as frequency and time of visits, which pages were visited, and which open-ended activities were completed. Important usage findings include:

- Most popular access time: evenings, particularly between 8:00 – 9:00 P.M.
- Most accessed section: **feedback**
- Least accessed section: Associate Teacher Role
- Section with greatest amount of time spent *when accessed*: **Planning**
- Section with least amount of time spent *when accessed*: Praxis
- Noticeable spike in usage when students actually in their practicum placement vs. before and after (‘just in time’ learning)

Petrarca (2013) notes that an inherent challenge with the learning potential of the ATLT or other online learning tools is that “the drawback of “time” documented in the literature” makes getting associate teachers to log on difficult, “especially when many of such partners already volunteer their time to host [our] higher education students” (p. 166). Petrarca (2013) concludes by stating that although the study did not explore applications of learning through the ATLT, usage patterns and emerging themes from reflective responses are hopeful, calling for future research on web-based professional development tools.

Work Cited:

Petrarca, D. (2013). A Promising practicum pilot: Exploring associate teachers’ access and interactions with a web-based learning tool. *Interdisciplinary Journal of E-Learning and Learning Objects*, 9, 149-171.



## Appendix H: Course Re-Design Resulting from Pedagogical Reconceptualization Process: Inspiration for Course Designers/Instructors

Following the pedagogical reconceptualization process described in *Section 10.1.2 Reconceptualizing Online Pedagogies*, the re-design process at the University of New England was informed by the lenses of three pedagogical frameworks: *sociocultural-historical theory*, *teaching through assessment*, and *learning as knowledge creation*.

### Sociocultural-historical theory

Green et al. (2010) note that “[s]ociocultural perspectives of early childhood education acknowledge the contexts of the learner and the ways in which the learner interacts with and learns from the people and artefacts in the community” (p. 261). The philosophy statements (above) outlining how students are members of wider learning circles, and how interactions are pivotal for learning reflect the influence of this framework.

### Teaching through assessment,

Green et al. (2010) describe how Edwards’ (2010) pedagogical process of *teaching through assessment* challenged the teacher-researchers to “put pedagogy ahead of technology” by merging assessment and technology to “create contexts in which theory and practice were integrated in the outcomes that were produced” (p. 263). As such, collaborative learning groups of students (and at times with children, families, and colleagues) were “encouraged to explore the pedagogical potential of the tools in an online environment” to “agree on what common artefacts of their learning they would produce, as well as how, when and why” (p. 263). Green et al. (2010) note that this method places the responsibility on the “students to take an active, responsible role in their own personal and professional development” and that subsequent responses to the assigned tasks “demonstrate their learning to be of a higher quality and more in depth than the assignments received from students in previous years” (p. 263).

### Learning as knowledge creation

One of the largest and most important issues the instructor-researchers explored in their reconceptualization work was “*What represents effective online pedagogy to support*



*learning as knowledge creation*<sup>64</sup>” (2010, p. 264). **It was through exploring this question that the five higher order learning outcomes of *advocacy, advancing community knowledge, adaptiveness, and promisingness* were identified as moving towards online pedagogy as knowledge creation** (2010, p. 265). These learning outcomes are briefly summarized from Green et al., (2010) below, along with an example of what course activities looked like before reconceptualization, and now, in their reconceptualised practice.

### Advocacy

**Students “engage *through* understanding rather than *by* understanding” in both the content and assessment/learning activities within each unit, “nurtur[ing] their ability to be agents of change”** (p. 265). For example, instead of producing a report on recording growth of beans in a cup with children for their early science project, students are now asked to “focus on a science-related question, issue, or problem in their centre” and “advocate for change related to science practices in their workplaces” (p. 266). Examples of student submissions include “a digital plan to town council requesting funds for an environmentally sound addition to the preschool,” and a digital booklet of activities for families (translated into 7 languages represented at the centre) based on a survey about their children’s science interest (p. 266).

### Advancing Community Knowledge

**Through a “knowledge exchanging and collaborating culture,” the community knowledge “captured in [students’] learning artefacts is greater than the individual knowledge each student and also extends beyond the unit into their workplace.”** (p. 266). For example, instead of assessing the unit on social justice through a 2-page essay reflecting the assigned readings, topic notes, and book chapter on the topic, students now draw from the materials to collectively develop “common conceptual and pedagogical underpinnings,” then create a group presentation to “advance community knowledge in their workplaces and communities regarding a social justice issue.” (p. 267).

### Adaptiveness

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<sup>64</sup> As in “[t]eaching and learning is context-dependent and requires the critical engagement of students” (2010, p. 265).



**Adaptive know-how is “viewed as the primary learning goal rather than the assessing of the unit’s content” (p. 268). Thus, instead of a “routine ‘know how’ and a predefined ‘know-that’,” there is “an adaptive know-how and emergent-know that” that “becomes less specifiable ahead of time” (p. 268).** For example, instead of individually writing an essay that incorporated readings following a pre-defined format with pre-defined headings in response to a controversial essay, students now work in collaborative groups of four to: share their interpretations and reflections of the controversial statements, then submit an electronic resource responding to the statement/unit materials. Examples include: newsletters/information pamphlets for various audiences, workshops for community members to engage them in similar learning/thinking processes, and audio recordings of a scripted radio program.

#### Promisingness

**The instructor-researchers understood promisingness as a “kind of knowledge facilitated in online environments through a progressive curriculum, unfolding and emerging” (p. 268, building off definition from Hong & Sullivan, 2009).** As such, they developed “increasingly flexible content, tasks, and assessment” that require adaptive skills “beyond curricular and disciplinary boundaries” (p. 269). For example, in a math unit – “typically viewed as bounded by particular content and context” (p. 269) – the students used to conduct math activities in the early childhood classroom, then assess/plan for learning of the children through individual essays that outlined their activity and future planning. Now, students reflect and analyze through blog posts about embedded practices of math that they observe occurring incidentally at early childhood centres, then “submit a ‘back map’ to the curriculum standards for further intentional planning” (p. 269).



## Appendix I: Supporting Evidence of Instructional and Leadership Practices in K-12 Online Education: Inspiration for Instructors & MCFD

Potential Supporting Evidence (revised from Ministry of Education, 2010b) for instructors and MCFD to consider when using a reflective framework for institutional recognition (inspiration/examples of reflective questions attached as Appendix I)

Instructional Practices	Leadership
<ul style="list-style-type: none"> <li>• Informing prospective students in advance of: the course/program requirements, resources, plan and overview, as well as skills required to be successful as an online learner</li> <li>• Incorporating opportunities for students to engage in critical reasoning and higher order thinking, critical reflection</li> <li>• Communicating and making available instructional support services and resources</li> <li>• Clearly stating privacy policies, using content in accordance with the Canadian Copyright Act</li> <li>• Providing frequent formative (as opposed to summative) assessment, and a variety of assessment methods</li> <li>• Facilitating a community of learners where students have ongoing opportunities to work with peers, making networking software available</li> <li>• Providing the opportunity for students to give feedback on their learning experiences</li> <li>• Incorporating a variety of both synchronous and asynchronous strategies and tools for active engagement, with consequences for non-participation</li> </ul>	<ul style="list-style-type: none"> <li>• Placing a high value on project-based group work as an integral part of the teaching and learning process (both instruction and assessment)</li> <li>• Acknowledging the specific skill sets/resources required to deliver quality online programs, and supporting instructors in meeting them by:               <ul style="list-style-type: none"> <li>○ Providing professional learning time and opportunities for staff to support them to adapt/modify approaches according to individual student needs/learning style and new and emerging online learning practices</li> <li>○ Recruiting instructors already familiar with online teaching and learning (and/or ensuring new instructor receive adequate training)</li> <li>○ Expecting leaders to participate in workshops/conferences/meetings/other activities related to online learning</li> </ul> </li> <li>• Using evidence-based instructional strategies that are continually adapted/examined to maximize benefits of the online learning environment (gathering relevant student and provincial level data as evidence for modification requirements to improve program quality)</li> <li>• Conducting and making public regular surveys of student satisfaction</li> <li>• Gathering student level data to monitor student achievement and program completion</li> <li>• Articulating a rationale and vision for the online program (at the school and organizational level)</li> <li>• Completing hardware and software upgrades and purchases on regular basis</li> <li>• Including online learning programs in regular institutional review processes</li> </ul>



## Appendix J: Pedagogy Before Technology: Inspiration for a Reflective Framework for Institutional Recognition Process

As Enid Elliot, prominent early childhood educator in BC contends,

*We must encourage dialogue at all levels that impact early childhood – within government, within the university, within professional organizations, within the field – and avoid the monologism that results from unitary voices in official documents* (Elliot, 2010, p. 17)

The creation of a reflective framework (as proposed here) to for the ECE Registry to use as a tool for recognizing institutions who offer one or more courses online would invite lively dialogue and encourage meaningful critical reflection on the part of course designers, instructors, and government in the process of assuring quality in online delivery. Following the International Council for Open and Distance Education’s (2015) recommendation that quality assurance frameworks for online learning should be *dynamic, multifaceted, mainstreamed, multifunctional and representative*,<sup>65</sup> and with particular inspiration from the perspective workbook approach of the New Zealand e-learning guidelines,<sup>66</sup> this report suggests that consultation and collaboration on a reflective framework should focus on the following two goals:

- Balancing the perspectives of multiple stakeholders - MCFD, instructors, students, children/families/communities/society – the intent of the framework being that it can be used for reflective practice in daily work, *not* just the institutional recognition process
- Moving away from a yes/no ‘checklist’ approach to quality assurance and towards critical reflection – thus, formulating guidelines as reflective *questions*. Supporting evidence may thus be open-ended and multifaceted; a multiplicity of measures<sup>67</sup> may indicate quality (this has the added benefit of built-in flexibility to accommodate for ongoing changes in technology)

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<sup>65</sup> See section 10

<sup>66</sup> See section 10.2

<sup>67</sup> Including, for example, the considerations for Institutions/Departments/Instructors listed in Section 12



*The New Zealand E-Learning Guidelines, K-12 Distance Standards, and UBC Framework* (summarized and included in the body of the report) are useful for inspiring and theorizing how standards or guidelines may be grouped into a broad set of categories or perspectives:

Perspectives of Stakeholders (New Zealand)	Instructional Practices and Leadership Practices (BC K-12)	Levels of Support (UBC)
Learner, Instructor, Manager, Organizational Leader, Quality Assurance Body	Management of learning, Fostering social learning, Stimulating cognitive processes & Planning for learning, Supporting instruction and learning, Communicating about learning	Course and program Learning community Teaching and learning skills development Applications Infrastructure

In each case, the result is that instead of a long list of guidelines (such as the currently listed considerations in *Section 12*), the framework is organized around a common set of themes that have been identified as being important to that jurisdiction, discipline, or institution. It is proposed that identifying a set of themes/priority areas to house/organize reflective questions for online learning guidelines in the ECE-specific realm of online education is an important part of the consultation and collaboration process (for example: *digital literacies, practicum/course level, instructor professional learning; fostering congruency with early years and higher education pedagogies, communities of learning etc.*).

Depending on the thematic categories that are chosen to organize the reflective framework, some of the guidelines in section 12 would become questions, and others would become **supporting evidence**. For example, if *communities of learning* was identified as a broad organizational theme, examples of reflective questions might be:

- *How are a variety of synchronous and asynchronous communication tools and strategies used to facilitate a collaborative community of student learners?*



- *How are the learners encouraged and supported to continue nourishing the community after graduation?*

These questions are drawn directly from recommendations in Section 12:

- “Use a combination of synchronous and asynchronous communication and multiple channels for each (student/student, student/instructor, students/instructor, etc)”
- “Leave discussion boards open after courses end, so graduates can continue to cultivate professional community and use 21<sup>st</sup> century tools (ex: Facebook, Twitter) to encourage meaningful learning communities for graduates”

When reformatted as questions as proposed above, there are more open-ended opportunities for instructors to respond to the innovative strategies they use in their specific teaching context. This means that strategies such as ‘leaving discussion boards open’, or ‘utilizing Facebook/Twitter’ become possibilities for supporting evidence that instructors facilitate a community of learners, but are not viewed as the *only* supporting evidence (other evidence in this example might include, for example, strategies from Appendix C, such as utilizing reflective blogging). In this way, the open-ended questions encourage instructors to critically reflect and choose innovative strategies most fitting with their pedagogies and with institutional and students’ contexts, and are not limited to specific pieces of evidence.